FUNCTIONAL ANALYSIS AND CONTINUING EDUCATION NEEDS ASSESSMENT OF CONSULTANT DIETITIANS IN HEALTH CARE FACILITIES IN OKLAHOMA

By

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INTRODUCTION

The number of dietitians joining the ranks of consultants has greatly increased in recent years. The dietetic practice group, Consultant Dietitians in Health Care Facilities (CD-HCF), with fifty charter members, was the first practice group to organize after the new ADA structure and bylaws went into effect in 1977 (McAllister, 1982). The bylaws provided for the formation of the Council on Practice (COP) (The American Dietetic Association, 1981). CD-HCF's current membership stands at 2750 nationwide making it the largest practice group (Bronson, 1982).

Several factors have brought about an increased demand for consultant dietitians. With the advent of Public Law 89-97 in 1965, and the establishment of Medicare, Title XVIII, and Medicaid, Title XIX, many health care facilities were required to recruit and utilize the services of a professional dietitian to ensure clients would receive quality nutritional care (U. S. Public Health Service, 1975). An increase in the elderly population and the rapid growth of long-term care facilities also help explain this increased demand (Robinson, 1967; Health Care Financing Administration, 1981). The problem will be even greater in the year 2000 when the population over 65 is expected to double due to the "baby boom" generation's influx into the ranks of the elderly. By 2030, there will be 50 million people in the United States age 65 or older (Health Care Financing Administration, 1981; Senate Committee on Labor and Human

Resources, 1981; Federal Council on Aging, 1981; ADA Reports, 1982).

Research concerning consultant dietitians has not kept abreast of the need for information. Studies regarding the activities and responsibilities of consultants in nursing homes have been conducted in New York State (Brenner, 1971; Gilbride, 1981) and the north central region states (Spear, 1978). Studies concerned with forecasting educational needs of consultants have been conducted in Tennessee (Smith, 1975). The Oklahoma Consultant Dietitians, affiliated with the American Dietetic Association and the Oklahoma Dietetic Association as a practice group, have conducted several surveys to gather demographic information among their membership (Spencer, 1979; Romero, 1981; Williams, 1981). However, no research concerning role functions or continuing education needs has been conducted in the state of Oklahoma and information is generally limited nationwide.

It is hoped that information gained from this research can be used in the university setting to develop continuing education activities adapted to the special needs of the consultant and to aid in the preparation of students who indicate an interest in consulting as a career option. Furthermore, it is hoped that this information can be used by professional organizations, health care institutions and the foodservice and health care industries to better understand the role of the consultant and thus contribute to the general upgrading of client care.

Purpose and Objectives

The purpose of this research was to conduct a functional analysis and continuing education needs assessment of consultant dietitians in the state of Oklahoma. Specific objectives include:

1. Determine the functional responsibilities and frequency of

activities performed by consultant dietitians in health care facilities.

2. Determine the educational needs and continuing education concerns of consultant dietitians in health care facilities.

3. Make recommendations for further research involving consultant dietitians in health care facilities.

Hypotheses

The hypotheses postulated in this study were:

H_1: There will be no differences in the responsibilities and frequency of activities of consultant dietitians based on age, degree, length of ADA membership, route to registration, employment status, and the existence of a plan of work priorities.

H_2: There will be no differences in the educational needs and perceived importance of continuing education concerns of consultant dietitians based on the same variables as in H_1.

Limitations

The 73 consultant dietitians in this study constitute an invited sample from the Oklahoma Consultants Practice Group rather than a random sample (Fox, 1969). Generalizations based on this study will only apply to the sample used.

Assumptions

1. Consultant dietitians belonging to the Oklahoma Consultants Practice Group are similar to other consultants in health care facilities in the state of Oklahoma.

2. The survey questionnaire used is a valid and reliable instrument

for testing the hypotheses under consideration.

3. The respondents to this survey conducted by the Food, Nutrition and Institution Administration Department, Oklahoma State University, completed the questionnaire objectively and without bias.

Definitions

1. Administrative Dietitian:

> Directs activities of institution department providing quality foodservice and nutritional care: Administers, plans, and directs activities of department providing quality foodservice. Establishes policies and procedures, and provides administrative direction for menu formulation, food preparation and service, purchasing, sanitation standards, safety practices, and personnel utilization. Selects professional dietetic staff, and directs departmental educational programs, coordinates interdepartmental professional activities, and serves as consultant to management on matters pertaining to dietetics (U.S. Bureau of Employment Security, 1977, p. 60).

2. Consultant Dietitian:

> Advises and assists personnel in public and private establishments, such as hospitals, health-related facilities, child-care centers, and schools, in foodservice systems and nutritional care of clients: Evaluates and monitors all aspects of foodservice operation, making recommendations for conformance level that will provide nutritionally adequate, quality food. Plans, organizes, and conducts orientation and in-service educational programs for foodservice personnel. Develops menu patterns. Assesses, develops, implements, and evaluates nutritional-care plans and provides followup, including written reports. Consults with health care team concering nutritional care of client. Confers with health care team concerning nutritional care of client. Confers with designers, builders, and equipment personnel in planning for building or remodeling foodservice units (U.S. Bureau of Employment Security, 1977, p. 60).

3. Foodservice Supervisor or Dietetic Assistant:

> A person who has successfully completed a program for dietetic assistants which meets the standards established by the ADA. Under the supervision of a dietitian, of a dietetic technician, or an administrator and a consultant dietitian, and through assigned tasks, the dietetic assistant participates in providing foodservice supervision and nutritional

care service (Committee to Develop a Glossary on Terminology for the Association and the Profession, 1974, p. 661).

4. Group Care Facility: "Any facility which maintains 24-hr. care and services for dependent, non-family persons. The size of the facility may range from a capacity for several individuals to several hundred persons" (Position Paper, 1975, p. 579).

5. Health Care Facility: Any facility which provides group health care services with a nutritional component requiring the services of a registered dietitian.

6. Residential Care Facility: " . . . pleasant, healthful place to live--a comfortable room, nutritious meals, clean laundry, the services of a barber and beautician, and the companionship of others" (U.S. Department of health and Human Services, 1980, p. 5).

7. Skilled Nursing Facility (SNF):

> A nursing home that has been certified as meeting Federal Standards within the meaning of the Social Security Act. It provides the level of care that comes closest to hospital care with 24-hour nursing services. Regular medical supervision and rehabilitation therapy are also provided. Generally, a skilled nursing facility cares for convalescent patients and those with long-term illnesses (U.S. Department of Health and Human Services, 1980, p. 8).

8. Intermediate Care Facility (ICF):

> Certified and meets Federal Standards and provides less extensive health related care and services. It has regular nursing service, but not around the clock. Most intermediate facilities carry on rehabilitation programs with an emphasis on personal care and social services. Mainly these homes serve people who are not fully capable of living by themselves, yet are not necessarily in need of 24-hour nursing care (U.S. Department of Health and Human Services, p. 8).

9. Function: "The nucleus of activities, responsibilities or duties so homogenous in character as to fall logically into a unit for purpose of execution" (Tead and Metcalf, 1926, p. 59).

10. Analysis: "The separation of an intellectual or substantial

whole into constituents for individual study" (Morris, 1981, p. 47).

11. Continuing Education: A life-long, primarily self-directed process aimed at maintaining professional competence in an ever changing environment. It should be based on the professional's real world needs and offer a variety in learning opportunities (Vanderveen, 1976).

12. Consultant Account: A business relationship between a consultant dietitian and a health care facility which involves providing professional nutritional expertise on a fee-for-service basis.

CHAPTER II

REVIEW OF LITERATURE

Historical Perspectives

The American Dietetic Association was founded in 1917 in response to the problems of feeding presented by World War I (Barber, 1959). Traditionally, dietitians have been primarily involved in clinical settings with the emphasis on development of scientific and technical skills in feeding. This basic role description is still valid but with broader interpretation to include a greater emphasis on clinical nutrition and the general science of nutrition.

As the role definitions and responsibilities of the dietitian have evolved, the growth and demand for dietary consultants have expanded. From the infancy of The American Dietetic Association, dietitians have served as consultants to the military and the government, particularly with regard to group feeding problems during times of war (Barber, 1959). In 1941, a dietitian was summoned to Washington, D. C. to act as advisor for the Army Food Program (Barber, 1959). Another government position for a nutrition consultant was added to the old Nutrition Section of The U. S. Public Health Service in 1948 (Barber, 1959). The consultant was to assist state and local health departments in development of nutrition programs, staff education and adoption of dietary assessment.

It was not until 1951, that a large scale need for consultant dietitians became evident. A review of the nation's hospitals revealed

that 59 percent were located in towns with less than 5,000 population. Most of these hospitals could not afford trained dietitians even if available. The crisis was met in part by the availability of consultants or shared dietitians. In 1955, a joint committee of the American Hospital Association and the American Dietetic Association voted to sponsor a project to assist small hospitals in obtaining the services of a shared dietitian. Non-professional personnel were sought for foodservice supervision (Barber, 1959).

Even with the growing recognition of the need for qualified dietary consultants, many group care facilities did not employ professional personnel for foodservice as late as 1961. This was especially true of nursing homes and related extended care facilities (Bowes, 1961).

It was not until Congress passed Public Law 89-97 in 1965, that the need for the consultant dietitian's services in group care facilities was legally mandated and recognized. Prior to implementation of this legislation in 1966, less than one-fifth of these facilities provided dietetic service guided by a professional (Matthewson, 1973). Ten years after implementation, a Long-term Care Facility Improvement Study revealed that approximately 90 percent of the skilled nursing facilities were receiving at least some consultation from a qualified dietitian (U.S. Public Health Service, 1975).

Within recent years, consultation has become an important specialty of dietetics. A review of literature reveals that consultation will be a major role of the dietitian in the future (Johnson, 1974). The trend has been toward centrifugal specialization (Hart, 1974). Radiating from a central historical emphasis on group feeding, dietitians are now working as consultants for rehabilitation centers, alcohol and drug abuse

agencies, mentally retarded centers, community mental health organizations, elderly nutrition sites, penal institutions, extended care facilities and in other areas. The emphasis is expanding from one of crises intervention to total health care for the clients involved (Karkeck, 1976; Heymans, 1976; Trithart and Noel, 1978; Kocher, 1972). As this emphasis changes, "The dietitian is /seen as/ a 'translator' of the science of nutrition into the skill of furnishing optimal nourishment to people" (Study Commission on Dietetics, 1972, p. 18). The dietary consultant is the optimal fulfiller of this translator role as he or she takes nutritional ideas or theory and catalyzes them into concrete applications (Johnson, 1974).

The Role of the Consultant

In a "Position Paper on the Role of the Registered Dietitian in Consultative Services to Group Care Facilities," the American Dietetic Association reaffirmed that proper nutritional care and quality foodservice are the basic rights of every individual in a group care facility (Position Paper, 1975). According to the ADA, only the registered consultant dietitian possesses the specialized knowledge of food and health implications to assure attainment of quality care. It is further recommended that the consultant have a minimum of three years experience with a variety of therapeutic, administrative, and educational experience. Continuing education should be the means for maintaining competency. This position paper lists the functions of the consultant dietitians as follows:

> (a) Evaluating and making recommendations regarding kitchen design, menu preparation and implementation, budget planning, staff competency and adequacy.

(b) Interpreting and/or suggesting adjustment of physician's dietary order; initial and continued assessment as needed, of individual residents or patients; integration of recommendations in the total care plan; nutritional counseling; and discharge planning.

(c) Providing staff education, participation in appropriate facility committees and conferences, promotion of good nutritional practices, and writing reports on current status of goals (Position Paper, 1975, p. 579).

The 1981 Position Paper on Recommended Salaries and Employment Practices for Members of the american Dietetic Association lists fourteen responsibilities of the consultant dietitian:

1. Evaluates and monitors foodservice systems, making recommendations for a conformance level that will provide nutritionally adequate quality food.

2. Develops budget proposals and recommends procedures for cost controls.

3. Plans, organizes, and conducts orientation and in-service educational programs for foodservice personnel.

4. Plans layout design and determines equipment requirements for foodservice facilities.

5. Recommends and monitors standards for sanitation, safety, and security in foodservice.

6. Develops menu patterns.

7. Assesses, develops, implements, and evaluates nutritional care plans and provides for follow-up, including written reports.

8. Consults and counsels with clients regarding selection and procurement of food to meet optimal nutrition.

9. Develops, maintains, and uses pertinent record systems related to the needs of the organization and to the consultant dietitian.

10. Develops, uses, and evaluates educational materials related to services provided.

11. Consults with the health care team concerning the nutritional care of clients.

12. Provides guidance and evaluation of the job performance of dietetic personnel.

13. Interprets, evaluates, and utilizes pertinent current research relating to nutritional care.

14. Maintains effective verbal and written communications and public relations, inter- and intra-departmentally (Position Paper, 1981).

The functions as presented in the 1975 Position Paper still stand but more emphasis can be seen on quality assurance, nutritional assessment and follow-up, written reports, and the growing emphasis on the dietitian as on an equal and assertive member in the total health care team.

It is important to draw a distinction between the functions of the administrative dietitian who "plans and directs" and the consultant who "advises and assists" (U. S. Bureau of Employment Security, 1977). This is the classical distinction between line and staff functions.

The term "line" implies responsibility, authority, and accountability (Strauss and Sayles, 1972). The term "staff", on the other hand, implies advice and service. The role of the dietary consultant can best be described as a staff function (Montag, 1967). It is the foodservice manager or the facility supervisor who will actually implement the suggestions of the consultant if they are to become effective (Robinson, 1967). It is important that the consultant keep in mind that the foodservice supervisor and/or facility manager have the right and authority to reject advice (Reel, 1975). The consultant must therefore learn to be effective through persuasion rather than force. Personal qualities which can contribute to the success of this subtle art are the ability to work harmoniously with a variety of people, good listening skills, maturity, patience, and flexibility (Position Paper, 1975; Reel, 1975).

Probably more important than any other criterion for successful

consulting is the relationship of the consultant to the foodservice supervisor and the facility manager. It is widely agreed in the literature that consultation is doomed to failure without top management support (Montag, 1967; Reel, 1975; Zimmerman and Tobia, 1978). According to Montag, the administrator should clearly explain the role functions of the consultant to the foodservice supervisor. The manager should stress that the consultant is a helpful resource person who makes the job of the foodservice supervisor easier and improves the overall quality of service based on established standards (Montag, 1967).

Several approaches to dietary consulting have been discussed in the literature. These include: the self-employed consultant; group practice or legal partnership; the "package plan"; and a group of homes under one management (Four Approaches to Dietary Consultation for Nursing Homes, 1967).

Often, a consultant is self-employed and serves a number of health care facilities. It is vital that this type of consultant first arrive at an agreement with the administrator concerning responsibilities, expectations, needs, and payment for services (Williams, 1967).

A second type of consultation is a group practice or a legal partnership of dietitians. A company of dietitians is formed to study the needs of nursing homes or other health related facilities in a specific geographic location. The company furnishes guidelines, moral support and supervision to consultants in their employ. The goal is to improve the effectiveness of the dietary consultant by providing him or her with a support network that provides a well paying position and recognition as a part of a professional team. Effective total company service in a reasonable time and at a reasonable rate benefits the facilities

served (Woodward, 1967).

A third approach to dietary consultation is the "package plan" (Marshall, 1967). This plan appeals to consultants and administrators who like structure. A total package might include a set menu cycle for general and therapeutic diets accompanied by a purchasing guide, a collection of standardized recipes, a diet manual and a training guide. The package must first be sold to the facility administrator and then adapted to the particular needs of the facility. The final step is weekly supervision from a qualified consultant. Advantages to the "package plan" are economical use of time and resources in development of tools and maximum control of foodservice activities. However, original purchase of such a package is expensive for the facility and it is sometimes difficult to adapt the package to existing needs.

A fourth type of consultation practice involves a group of homes under one management (Oliver, 1967). Advantages of this type of consulting include centralized administration, budgetary control, group purchasing, and flexibility of time division among facilities according to need.

Issues Facing the Consultant

A number of important issues confront the consulting dietitian to health care facilities. Among these are quality care assurance, fee setting and third party financing, effective resource management and cost/benefit documentation, and the ever present need for continuing education.

Perhaps the most important issue is quality care assurance. Quality assurance involves assessment, planning and evaluation aimed at improvement in health care outcomes (Adamov, 1982). Quality assurance has been

a concern of the American Dietetic Association since its inception in 1917, as evidenced by stringent academic and clinical standards and institution of the registration examination in 1969 (Holli, 1982). In 1973, the Executive Board of the Association appointed a Professional Standards Review Committee which today is called the Quality Assurance Committee (Comments related to a study of methods for improving coverage of Registered Dietitians services provided by home health agencies, 1982). This committee functions to develop standards of practice and educate membership on quality assurance systems.

It was early recognized that the consultant dietitian is charged with the responsibility to effect improvement in foodservice within the facility he or she serves (Robinson, 1967). It is extremely important that the consultant be given and use adequate time to assess the facility or project site he or she will serve before entering into a contractual agreement (Hartman, 1966; Kocher, 1972; Position Paper, 1975). This includes assessment of the staff, the clientele, the physical facility, and the total dietetic service offered. This is necessary before a realistic plan of work can be written (Montag, 1969). After accepting an account, initial and ongoing nutritional assessment of clients within the facility is necessary to effect improved nutritional status (Position Paper, 1971; Ometer and Oberfell, 1982). Factors which tend to complicate individual assessment are special gerontological and geriatric concerns, a high incidence of chronic disorders, and possible drug nutrient interrelationships (Sempos, Johnson, Elmer, Allington and Matthews, 1982). If a systematic screening procedure is used for initial evaluation, however, very few in-depth assessments will be required (Consultant Dietitian in Health Care Facilities, 1981).

Communication, both oral and written, is a factor which has great bearing on the outcome of quality care. The consultant dietitian must serve as the communication link both inter- and intra-departmentally in order to effect goal oriented nutritional care. Written documentation is important to coordinate and promote quality care and to protect the rights of both the patient and the providers of care. Assessment findings, actions taken, progress of response to therapy and follow-up plans should all be documented in a chronological order and in a manner which is compatible with the facility's method for arranging clinical data. The Problem Oriented Medical Record (POMR) is a documentation system in current use which provides this type of record (Matthewson, 1973). The consultant dietitian is responsible for entering nutritional information into the clinical record. In addition, brief written reports of work accomplished for each visit should be made for the facility administrator and the consultant's personal record (Robinson, 1967).

A second factor which affects quality care is the amount of time the consultant spends within a facility. Amount of time required will vary according to the competency of the foodservice personnel, and in particular, the foodservice supervisor, the size and complexity of the facility and the number and type of therapeutic diets served (Robinson, 1967). Employee turnover rates further complicate this problem. Some nursing home officials in the state of Oklahoma estimate turnover rate as high as 150 percent (Reasons for Nursing Home Problems, 1982). Training, therefore, becomes a vitally important, time consuming, and often, repetitive job of the consultant (Spears, 1961; Matthewson, 1973). Eight hours per month, as one full day or two half days is considered the legal minimum for consultant services in federally funded health care

facilities. A consultant has the professional duty to refuse an account where adequate time will either not be allowed or impossible for the consultant to provide in order to meet the needs of that facility (Position Paper, 1975). Time problems may be greatly alleviated in the future as role delineation between dietitians and well trained foodservice supervisors becomes clearer, and dietitians become more willing to transfer responsibility for repetitive tasks to their assistants, thus freeing themselves for higher level management tasks and long range planning (Brenner, 1971). In addition, consultants are beginning to make use of programmable calculators and microcomputers as essential organizational assessment, time and labor saving tools (Johnson, Sempos, Elmer, Allington and Matthews, 1981).

Audits, peer review, and self-assessment serve as tools for monitoring quality assurance (Adamov, 1982). Audits may be conducted internally by the staff of a health care institution or the consultant, or externally, as in the case of the formal survey process necessary for certification and licensure. The intent of the survey process is to identify areas of concern and assist in their correction, thus contributing to the safety and health protection of the patients (Consultant Dietitian in Health Care Facilities, 1981). A state license or letter of approval is necessary for a health care facility to open. Participation in Medicare and Medicaid is elective and comes under the regulation of the Health Care Financing Administration (HCFA) which is a unit of the State Department of Health and Human Services (DHHS). Hospitals which have accreditation under the Joint Committee on Accreditation of Hospitals (JCAH) are automatically deemed in compliance with Medicare standards. Long-term care facilities must be surveyed by a state agency once

every twelve months. In Oklahoma this task is performed by the Licensure and Certification Division of the State Health Department. It is imperative that consultants familiarize themselves with state and federal regulations which affect the facilities they serve in order to be in legal compliance with regard to nutritional services.

Professional codes based on the skill, knowledge, theory and practice of the professional are noamally self-regulating (Thomasma, 1979). The Code of Ethics for members of the American Dietetic Association indicates professional concern in this area (Robinson, 1967). In March of 1972, the Executive Board of the Oklahoma Dietetic Association established an Ethics Committee (Winterfeldt, 1973). This peer review committee, composed of dietitians and health department personnel, serves as a referral body to which complaints regarding professional actions can be directed. Recommendations are made with regard to standards of practice. The existence of this committee acts as a deterrent to unethical practice and thus contributes to the maintenance of quality care assurance within the state.

Fee setting is a sticky subject for consultants and dietitians in general. Traditionally, hospitals have included dietetic services as a part of each patient's room billing or general services charge rather than directly charging fees for services rendered as in the case of the physical therapist, radiologist and other ancillary services (Dillion and McKibbon, 1979; Cross, 1981). Also, due to the rarity, and in most cases, absence of third party reimbursement for out-patients, both federally and with private insurance companies, a publicly and professionally recognized tradition for employing the dietitian on a fee for service basis has not been developed. Only recently, with dietitians

providing nutrition services in private practice, has fee charging become more common (Cross, 1981). According to American Dietetic Association guidelines concerning consultive services to group care facilities, "Appropriate fees must be charged for services rendered, consistent with the realistic and competitive charges of well qualified professionals" (Position Paper, 1975, p. 580). The Association further suggests that the consultant should charge an adequate hourly rate based on the salary of a full time dietitian within the same geographical area and with similar qualifications and experience. In addition, 28 to 33 percent should be added to compensate for missed employment benefits. The higher percentage should be used if the consultant is self-employed with regard to FICA taxes and insurance (Position Paper, 1981). The consultant in private practice will need to consider travel, supplies, telephone, secretarial services and other overhead costs as they apply in calculating an appropriate fee.

Other fee formulas and guides have been proposed (Robinson, 1967; Dillion and McKibbon, 1979). Robinson suggests using the wages of a full time dietitian with comparable experience and multiplying by one and one half to cover fringe benefits. Dillion and McKibbon propose cost-based fee setting where a minimum floor for fees is set based on a rational thought process and documentation. This approach, while not answering all questions, removes some of the uncertainty in fee setting and seems equitable since clients are charged for benefits received from services performed.

Regardless of the method used to determine fees for service, the final fee must be perceived as equitable to all parties concerned including the consultant, the patient client and the facility served.

Once an appropriate fee has been established, it should be written into the contract made with the facility served (Montag, 1969).

Another important issue area is effective resource management and cost/benefit documentation. In order to help control rising health care costs and compete for scarce public funding, the consultant must be willing and able to document and communicate the effectiveness of his or her programs in terms of progress achieved toward nutritional goals (McCool, 1979; Kocher, 1972; Ambulatory Nutrition Care Research Study Committee, 1982). Cost/benefit documentation is also a necessary prerequisite to the acceptance and legalization of third party reimbursement for nutritional services. It should be noted that whenever a new service is reimbursable, the demand for that service tends to increase (Comments . . ., 1982). Nutritionists believe, however, that initial costs would be more than offset by long-term benefits in terms of health care costs avoided (Karkeck, 1976; Hatten, 1976; Treacy, 1976; Kristen, Arnold and Wynder, 1977). The American Dietetic Association, through the Ambulatory Nutrition Care Research Committee (1982), has addressed this problem in the monograph, Costs and Benefits of Nutritional Care: Phase I (1979) and "Requisites of advocacy: Philosophy, research, documentation: Phase II of the costs and benefits of nutritional care". The committee has developed a model for gathering data on costs, benefits and effectiveness of ambulatory dietetic service which involves a progressive linkage of nutritional counseling, changes in food intake, altered risk factors, desirable health outcomes, and finally, economic benefits. The weakness affecting this model has clearly been insufficient documentation.

McCool (1979) has proposed a ten step model for planning and carrying out any program whether it be ambulatory clinical care, clinical

care within health care institutions, nutrition projects, or any type of foodservice program in terms of costs and benefits. The planning steps include: 1) assessing the need for the program; 2) identifying specific objectives and stating them in measurable terms; 3) documenting cause and effect linkages between activities and objectives; and, 4) consolidating the information in steps 1-3 to document the total program and to use as a communication tool for all persons involved. The evaluative steps include: 5) developing evaluation criteria; 6) specifying the required data; 7) collecting the data; 8) analyzing the data; 9) reporting the information gained; and, 10) modifying the program where needed. McCool believes that failure to provide cost/benefit documentation may lead to the loss of resources and eventual demise of nutritional programs and services.

There have been recent examples of the value of cost/benefit data properly gathered and effectively utilized (Davidson, Delcher, and Englund, 1979; Mathiew, 1982). A clinical study within a hospital setting involving diabetic patients, revealed that instituting a plan of expanded nutritional care, while eliminating the use of oral agents and gradually decreasing the use of insulin resulted in a $96,609 savings over a seven year period in addition to paying for the costs of the program. The patients studied lost 40 percent of their body weight and there was no increase in mean glucose levels (Davidson et al., 1982). In the public policy arena there was a recent battle between a Health Care Financing Administration Task Force and the ADA. The HCFA Task Force proposed eliminating the services of dietitians in extended care facilities claiming they could find no hard evidence to prove their services contribute to improved patient outcomes (Mathiew, 1982). The ADA Office of

Government Affairs, with the concentrated support of the membership, and in particular, the Consultant Dietitians in Health Care Facilities Practice Group (CD-HCF) closely monitored the proposal and put together a data package which was sent to the HCFA, the Office of Management and Budget (OMB) and the Department of Health and Human Services (DHHS) Secretary, Richard S. Schweiker. The result of this cost/benefit data was Schweiker's refusal to make any changes in the conditions of participation for skilled nursing facilities which remain under 1974 regulations (U. S. Department of Health, Education and Welfare, 1974). This near disaster illustrates the importance of consultant involvement in cost/benefit documentation.

Clearly, more cost/benefit research and involvement in public policy making decisions and legislation is indicated for the future. For the consultant, this means hard evidence to use in fee and time negotiation with administrators. Consultants will be able to show through documentation how their services can save money and improve the quality of nutritional care.

A final issue area is the need for continuing education. Educational absolescence is both a fear and a reality with the increasing complexity of health care legislation and the explosion of knowledge in the fields of science, technology, management and behavioral science. Two basic objectives underlying continuing education are enhancement of the knowledge of individual dietitians to improve competency and advancement of the profession of dietetics (Position Paper, 1974). Since 1969, participation in continuing education has been mandatory for maintenance of registration status. The association develops and offers a large spectrum of programs and products for continuing education credits. A

Continuing Advisory Committee monitors these activities through the ADA headquarters staff (DelVescovo, 1982).

There are basically three types of continuing education: 1) activities which are eligible for credit to keep registration current; 2) in-service education provided by employers but not eligible for credit; and, 3) self-initiated learning not available for credit. A recent study, covering a six month's period, conducted among 230 Illinois dietitians, revealed that they spent a mean of 26.8 hours for CDR-approved activities as compared to a mean of 90.8 hours for ineligible activities. This data strongly suggests that dietitians are accepting responsibility for their own continuing education and are spending a great deal if time, effort and money in this regard on a voluntary basis. Required activities may not be necessary. Professional reading was the most frequently mentioned activity with a mean of 4.1 hours per month closely followed by consultation with other dietitians and other professionals as the second and third most mentioned activities (Holli, 1982). The Continuing Education Article, "Review of Trends in Food Use, 1909 to 1980," reflects the ADA response to this high interest and value dietetic practitioners place on the reading of professional literature. This article is the first to be approved for continuing education credits (DelVescovo, 1982).

Vanderveen, in a study involving 232 Ohio dietitians, has pointed out the importance of directly assessing the learning needs of practitioners rather than inferring needs from role analysis as has been traditionally done. He asked practitioners to assess their own learning needs by responding to an open-ended questionnaire. The data indicated greater perceived educational needs for professional knowledge than the behavioral, communicative and socio-cultural sciences. Management and

nutritional care skills were high areas of need. There was also a relatively high interest in behavior related to dietary intervention. There was a lower need for applications of knowledge. It should be noted that 68 percent of the respondents were in clinical or general practice (Vanderveen, 1976).

Professional organizations can be of help with continuing education by helping to identify needs and sponsoring activities which bring practitioners together. Ultimate responsibility, however, lies with the individual professional who through careful self assessment, should know their own needs best (Robinson, 1967; Committee on Goals of Education for Dietetics, Dietetic Internship Council, The American Dietetic Association, 1969; Hart, 1974).

Research Related to Role Functions and Continuing Education Needs of Consultants

In this section, three studies which deal primarily with the role functions of consultants and one study which deals primarily with continuing education will be discussed in a chronological order. Finally, a brief summary of surveys conducted by the Oklahoma Consultant Dietitians, affiliated with the American and the Oklahoma Dietetic Association as a Practice Group, will be presented.

Brenner, in 1971, conducted a study to identify the activities, functions and continuing education needs of consulting dietitians in nursing homes and health related facilities. In her interview of eighteen dietary consultants in Albany, New York, Brenner found that they were generally functioning in a staff or advisory role rather than a line role as expected. Direct authority and responsibility

for operation of the dietary department was delegated to the food-service supervisor. In the tasks of menu planning and therapeutics, 50 percent of the consultants were functioning in a line capacity indicating that these were basic skill areas which could be delegated to the foodservice supervisor. Brenner's data revealed that many of the tasks performed in larger facilities by dietitians can be equally well performed by support personnel guided by the advice of a professional dietary consultant. The three areas which consumed the greatest amount of time were therapeutics, menu planning, and education. Consultants indicated that their greatest needs for continuing education were geriatric nutrition, personnel administration and adult education.

A Tennessee study used the Delphi forecasting technique to survey two panels of experts, the first consisting of 42 consultant dietitians and the other of 100 administrators in nursing homes (Smith, 1975). The Delphi technique was used to elicit and refine group judgements through a systematic solicitation of opinions. In this study, three rounds of mailed questionnaires were used. The purpose of the study was to predict future responsibilities and forecast the educational and training requirements of consultant dietitians. Management science, personnel management, verbal and written communications, sanitation and safety, and equipment layout and design were forecast as future educational needs. The data indicated that the responsibilities for consultant dietitians will not change much over the next ten years with the writing and planning of menus being the primary activities performed. Implementation of nutritional care plans and training personnel were also ranked as important. Neither panel ranked the writing of diet orders for patients by the dietitians as an important responsibility indicating this was the

physician's duty (Smith, 1975).

In another study, Spear, using mailed questionnaires, investigated the role functions of 252 consultants in nursing homes and their administrators in twelve north central region states (Spear, 1978). Objectives of the study were to compare and contrast experience and educational background, delineate major problem areas, and analyze responsibilities and activities of consultants in relationship to the foodservice supervisor and the facility administrator. Spear's data revealed major differences between consultants and administrators in their perceptions of problem areas. Administrators identified selection and training of personnel, department operating costs, and adequate storage of equipment as major problem areas. Consultants perceived menu planning, diet modifications, organization and management, education and training as the primary problem areas. Activities which consultants indicated as being performed almost every visit included resident visitation and dietary consultation, nutritional assessment, communication with other departments, and checking foodservice sanitation procedures. Consultants indicated food purchasing, food preparation, maintaining records and reports, and hiring and firing of personnel as the activities of least importance. Administrators indicated that the most important contributions made by consultants were in the areas of therapeutic diets, menus, sanitation and inter- and intra-departmental communications.

In a recent study by Gilbride (1981), 40 specific role functions of dietitians in New York State nursing homes were examined. Objectives of the study were to determine role concensus within and among groups of part time and full time dietitians and nursing home administrators, the current status of role performance for the two types of

dietitians and the allocation of time for six selected role segments. The study represented 273 nursing homes, 100 part time or consultant dietitians, 200 full time dietitians, and 210 facility administrators. The data showed significant differences in role perception between full time and part time dietitians. Consultant dietitians tended to work more autonomously while full time dietitians tended to work more closely with others reflecting the classical staff and line distinction. There was, however, a high concensus among all three groups with regard to two role functions, identifying residents at risk and the general monitoring of nutritional care for all residents. With regard to allocation of time among six selected role segments, part time dietitians spent 31 percent of their time on nutritional assessment, 20 percent on communication, 16 percent on diet therapy, 13 percent on organization and management 10 percent each, on education and interpretation. This study reflects a concern for high quality nutritional care (Gilbride, 1981).

The Oklahoma Consultant Dietitians have conducted surveys among their own membership. At their organizational meeting held at the Oklahoma Dietetic Spring Meeting in 1979, thirty-five persons became members. A survey of the new membership revealed a range of from one to 20 consulting days per month with a mean of eight days per month per member (Spencer, 1982). A survey included in the April 1981 newsletter for this group, revealed that the majority of the 19 members responding were receiving fees between $75 and $125 per month. One half of the respondents indicated that they charged for mileage, three individuals charged for work done at home and one charged for telephone consultations. Nine indicated that they consulted only in

nursing homes, while eight indicated they consulted in both nursing homes and hospitals. This study did not cover other types of accounts such as nutrition sites (Romero, 1981). Another survey of monthly retaining fees, benefits, and type of facility was conducted in June of 1981 among 27 members. The range of hourly fees was from $6.65-$9.00 and $18.75-$20.00. The mean hourly fee was $13.00 Five charged for work done at home, two for telephone consultations and four for mileage. The primary fringe benefit listed when on duty was a free meal. For the 27 dietitians surveyed, 104 days were spent in nursing homes, 46 days at elderly nutrition sites and 29 days in hospitals on a monthly basis. Eighteen of the dietitians surveyed spent eight hours per visit in the facilities served (Williams, 1981).

Research concerning consultant dietitians is very limited. The frequency of performance and perception of importance of specific role functions differs from study to study. There does seem to be a general trend, however, toward greater emphasis on nutritional assessment and concern for quality care. The literature seems to uniformly support the classical distinction between line and staff with the consultant functioning in a staff or advisory capacity. This means greater consultant delegation of technical duties to qualified foodservice supervisors. Since Vanderveen's study in 1976, there has been an effort to directly assess the continuing education needs of dietetic practitioners rather than inferring them from role analysis only (Vanderveen, 1976). Personnel administration, adult education, geriatric nutrition and equipment layout and design are areas frequently mentioned as continuing education needs within this dietetic specialty.

CHAPTER III

RESEARCH PROCEDURES

This research was conducted to determine the kinds of responsibilities and activities (role functions) of consultant dietitians in health care facilities and to assess their continuing education needs. The research design, sample, data collection and analysis will be discussed in this chapter.

Research Design

A descriptive status survey was the research design used in this study (Kerlinger, 1973; VanDalen, 1973). Descriptive research is concerned with hypotheses formulation and testing, analysis of relationships between nonmanipulated variables in a natural setting and the development of generalizations, principles or theories through the use of inductive-deductive reasoning (Best, 1981).

Sample

A membership list, obtained from the Oklahoma Consultant Dietitians Practice Group, containing the names and addresses of 73 Oklahoma consultants constituted the invited sample in this study (Fox, 1969). Of these, 55 responded to the survey. Thirteen of the respondents were eliminated since they were not actually consulting in health care facilities at the time of the survey. The final sample consisted of the 42

remaining respondents. The information collected from this survey can only be generalized to this group.

Data Collection

Planning and Development

Planning and development were done during the fall 1980 and spring and summer semesters 1981. Data collection procedures were determined and data analysis techniques appropriate to examine the research hypothesis were selected.

Instrumentation

A questionnaire was selected as the research tool. Questionnaires are frequently used to assess opinions, preferences, attitudes and facts known to the individual respondent (Joseph and Joseph, 1979). The research instrument consisted of multiple choice questions, check lists and short answers or completion-type questions. Respondents were asked to specify their response when "other" was checked, or to explain their answers to certain selected questions. In developing the instrument, several questionnaires from related studies (Brenner, 1971; Smith, 1975; Vanderveen, 1976; Spear, 1978; Spears, 1982) were used to compile a comprehensive list of questions for the study. A recently published manual on how to successfully consult (Consultant Dietitians in Health Care Facilities, 1981) was used to update questions and add current state-of-the-art ideas which relate to functions and continuing education needs.

The eight-page questionnaire was divided into three sections. Section I dealt with general demographic information. Section II dealt with role functions and activities performed by the consultant dietitian and

the foodservice supervisor. It was comprised of a check list and open ended questions related to role functions. Section III was comprised of a check list of perceived continuing education concerns and responsibilities of consultant dietitians (Appendix A).

The research instrument was examined for content validity, clarity, and format by a panel consisting of the graduate faculty of the Food, Nutrition and Institution Administration and Statistics Departments at Oklahoma State University and two consultant dietitians presently practicing in the state of Oklahoma. The final draft was off-set printed on ivory linen paper. Two introductory letters, one from the researcher and one from the president of the Oklahoma Consultant Dietitians, were enclosed with the questionnaire to explain the purpose of the survey (Appendix B). Other instructions were printed directly onto the questionnaire. The questionnaire was designed so that it could easily be refolded, stapled and mailed back to the researcher. Return postage was provided.

Survey Procedure

Questionnaires with insert letters were mailed to the 73 members of the Oklahoma Consultants Practice Group with Oklahoma addresses on June 24, 1982. Each questionnaire was coded. The total mailing cost to and from each participant was $.64. Participants were instructed to return their questionnaires on or before July 8, 1982. During the weekend after July 8, a tally revealed 28 or 38 percent of the questionnaires had been returned. A second mailing, including all the original materials, was made on July 13, 1982. A special handwritten note was also included to report progress of research thus far and urge increased participation

(Appendix B). Participants were urged to complete the questionnaire as soon as possible.

Data Analysis

Data collected were transcribed and processed onto computer cards for statistical analysis using the Statistical Analysis System (SAS) (Helwig, 1978; Helwig and Council, 1979). Percentages and frequencies were generated to translate demographic, functional, attitudinal, institutional and educational variables into meaningful and useful information (Joseph and Joseph, 1979). Chi square values were determined to test if a relationship between selected independent variables and functional activities existed (Kerlinger, 1973). Analysis of variance (ANOVA) and t-test were used to determine the effect of selected independent variables on continuing education needs through calculation of mean differences (Snedecor and Cochran, 1980).

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was to determine the role functions (kinds of responsibilities and activities) of consultant dietitians in health care facilities in Oklahoma, and to assess their perceived continuing education needs. An eight-page questionnaire covering 70 functional activities and 44 continuing education concerns plus other related issues was developed to determine these responsibilities and concerns. The sample group consisted of 42 dietitians who are members of the Consultant Dietitians in Health Care Facilities, affiliated with The American and Oklahoma Dietetic Association as a Dietetic Practice Group.

This chapter describes the characteristics of the respondents, and the characteristics of their professional practice and work environment. Also presented is an analysis of their functional roles and perceived continuing education needs. Data analysis to evaluate the hypotheses are also included.

Characteristics of the Respondents

The 100 percent female respondents ranged in age from their twenties to over 70. They fell primarily within the age range 30-59 (81 percent) and the age range 50-59 (33 percent). Of the 29 respondents completing a baccalaureate degree only, 41 percent (N = 12) have a major

emphasis in institutional administration or management combined with either foods and nutrition, foodservice, or clinical dietetics. Thirty-four percent (N = 10) have a major emphasis in foods and nutrition alone, and 21 percent (N = 6) have a major emphasis in clinical dietetics. Nearly one third of the respondents (N = 12) have an advanced degree. Of these respondents, six (50 percent) have a master of science in foods and nutrition, three (25 percent) have a master of science in home economics education, one (8 percent) has a master of science in foodservice or institution management, and two (17 percent) have a master of science in public health. When asked to indicate how well their education had prepared them to perform as a consultant, 52 percent (N = 22) answered adequate, needs little improvement. Nineteen percent (N = 8) answered completely adequate, 24 percent (N = 10) answered somewhat inadequate, needs to be improved, and 5 percent (N = 2) answered very inadequate. Suggestions given for improvement included more business and personnel management, more on-the-job training, a need for integration of dietetic training with the training of other health care professionals, an understanding of the role of the consultant, more information on equipment and layout, and energy conservation.

With regard to experience, eight respondents have a range of 3-16 years of full time experience as a consultant with a mean of 8.13 years, and 36 have a range of 0.5-20 years experience as a part time consultant with a mean of 7.57 years (Table I). When asked to indicate the number of years of experience necessary before beginning a career as a consultant, the responses (N = 40) ranged from 0-14 with a mean of 3.21 years. This mean is in agreement with The American Dietetic Association guidelines of three years (Position Paper, 1975).

TABLE I

CONSULTANT EXPERIENCE IN YEARS

Type of Experience	N	Range	Sum	Mean	Standard Error of Mean
Full time consultant*	8	3-16	65	8.13	1.63
Part time consultant	36	.5-20	272.5	7.57	0.75
Full time other* dietetic practice	28	2-26	229	8.18	1.45
Part time other dietetic practice	7	1.5-15	53.5	7.64	1.82

*Full time equals 35 hours per week or more.

In response to length of membership in the American Dietetic Association, 61 percent (N = 25) indicated they have been members for less than 20 years and 40 percent (N = 17) indicated they had been members for more than 20 years. The range of answers was from three years to 62 years with a mean of 17.60 years. All the respondents belong to the Consultant Dietitians in Health Care Facilities Practice Group (CD-HCF), affiliated with The American and The Oklahoma Dietetic Association. In addition, one respondent has indicated membership in the ADA Gerontology Practice and one in the ADA Members With Management Responsibilities in Health Care Delivery Systems Practice Group. See Appendix E for concerns which Oklahoma consultants believe should be addressed by the ADA and the ODA. Other professional organizations indicated were local chapters of the American Diabetic Association (N = 4), the American Home Economics Association (AHEA) (N = 2), the Oklahoma Restaurant

Association (N = 1) and Nutrition Today Society (N = 1).

All 42 respondents are currently registered with the American Dietetic Association. Only 41 of these answered the question regarding route to registration. The response was nearly evenly divided between the Grandfather Clause (N = 21) and the R.D. Exam (N = 20).

Characteristics of Professional Practice and the Consultant Work Environment

Of the 42 respondents, seven percent (N = 3) are employed full time, 35 hours per week or more. Forty percent (N = 17) are employed half time or more, but less than full time. Forty-three percent (N =18) are employed less than half time, and a fourth group, 10 percent (N = 4), are consulting as a second job in addition to maintaining a full time job in another dietetic area. With regard to the group consulting as a second job, the majority (N = 3) have only one eight hour account per month in addition to their full time job. The remaining dietitian consults 40 hours per month in addition to holding a full time job.

With regard to work arrangement, 86 percent (N = 36) of the consultants surveyed are in independent practice. Five percent (N = 2) are a part of a group or partnership arrangement. Nine percent (N = 4) practice consulting as a second job.

Almost all the respondents (N = 40, 93 percent) use their private residence as a business base location. The two respondents in private practice (5 percent) maintain a separate business office and one respondent (2 percent) operates from both a private residence and a separate business office at the skilled nursing home where they consult.

With regard to insurance, 26 percent of the respondents (N = 11)

carry malpractice insurance. Only 15 percent (N = 6) carry disability insurance.

Consultants were asked if they use a computer to aid in their work. Only two out of 41 responding affirmed that they do.

Forty-four percent of the respondents (N = 18) have legal contracts with the facilities they serve. A nearly equal number (46 percent, N = 19) have written agreements. One consultant indicated having only verbal agreements and three consultants indicated they have both legal and written agreements.

Fees charged by the consultants surveyed range from $10.00 to $60.00 per hour with a mean of $15.47. This is somewhat higher than the mean hourly fee reported in a self-conducted survey by the Oklahoma Consultant Dietitians last year (Williams, 1981). This average fee falls within ADA guidelines (Position Paper, 1981) based on an Oklahoma entry level salary of about $16,000 per year. This indicates that Oklahoma consultants are not charging fees commensurate with their experience. Only 13 out of 40 consultants responding to the fee questions indicated they plan to raise fees within the next year (Table II).

Consultants were asked if they write a plan of work which establishes priorities for service, when first accepting a new account. Over half (N = 22, 54 percent) indicated they do not. Twenty-two (44 percent) do, and one (2 percent) said sometimes, depending on the facility situation. Of the respondents indicating no, some commented that they write a plan later after a thorough evaluation and assessment period.

The Oklahoma Consultants, as a group, hold 280 separate accounts and have been employed 1,370 cumulative years in the facilities they serve. On a monthly basis, they travel 10,012 miles and spend 2,530 hours serving 21,752 clients (Table III).

TABLE II

HOURLY FEES

Fee Information	N	Range	Mean[a]	Standard Error of Mean
Present Fee	40	$10.00-$60.00	$15.47	1.19
Projected Percentage Increase	13[b]	7%-50%	20%	3.36

[a]When respondents gave answer as a range rather than a single number, the average of the range was used in calculations.

[b]Only 13 consultants out of the 40 respondents indicated they planned to raise their fees.

TABLE III

CONSULTANT ACCOUNTS ON A MONTHLY BASIS
TOTAL NUMBER OF CONSULTANTS = 39

	Mean	Standard Error of Mean	Totals
Total number of accounts*	7.18	0.86	280
Distance from business base[1]	35.76	1.67	10,012
Number of beds and/or participants	77.69	2.42	21,752
Hours per month at facility[2]	9.04	0.36	2,530
Length of time employed by facility in years[3]	4.89	0.21	1,370

[1]If distance was less than 1 mile, 0 was entered in data set. All other figures given as fractions were rounded to the next higher number.

[2]All figures given as fractions were rounded to the next higher figure.

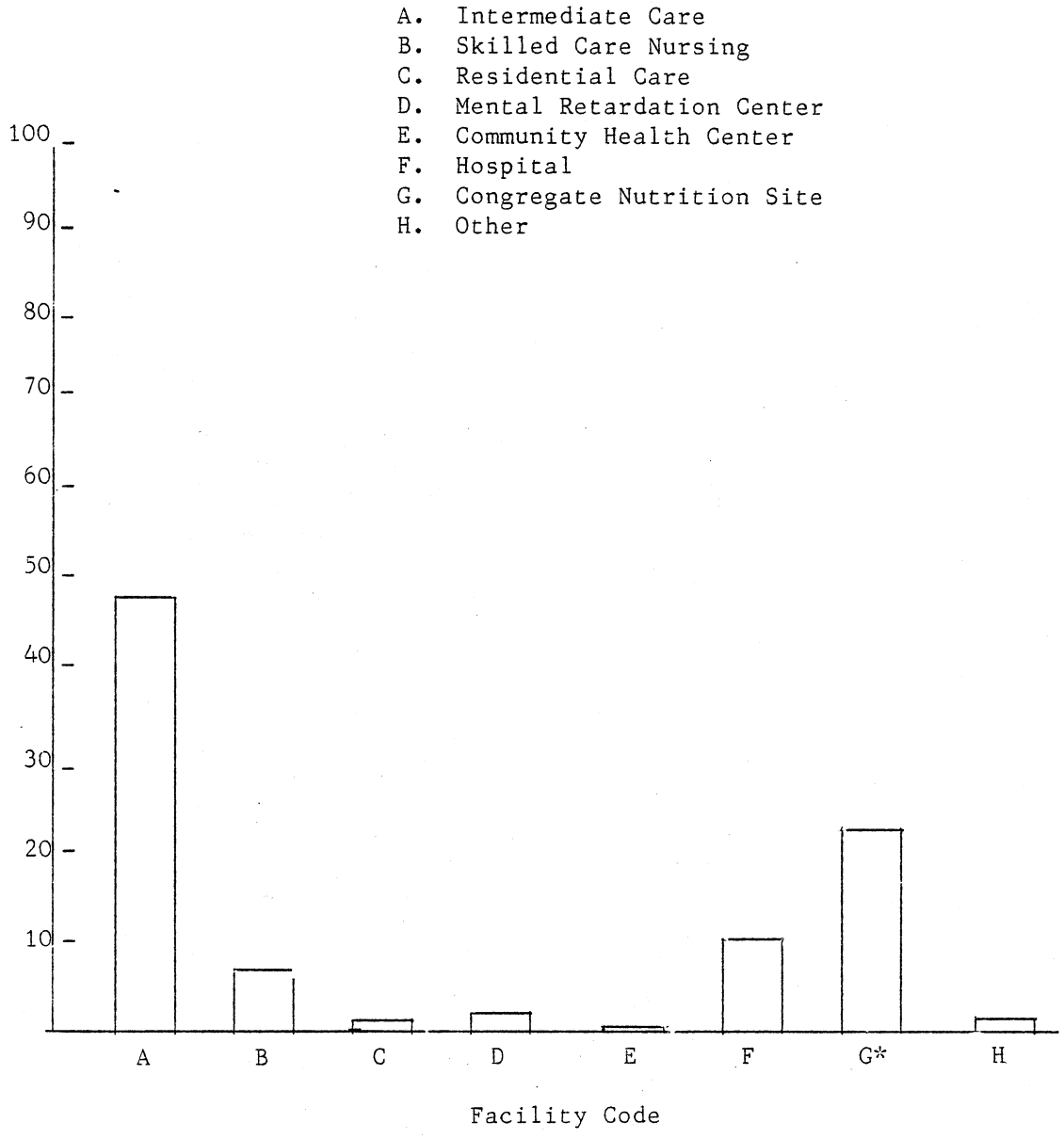
[3]Accounts of less than 1 year were entered as 1 year. All figures given as fractions were rounded to the next higher figure.

*In order to treat each congregate nutrition site as a separate account, some divisions were made arbitrarily by the researcher. The actual number of sites for this type of account could be greater than actually reported.

The majority of the 280 accounts served are intermediate care facilities (N = 138, 49 percent). Twenty-five percent (N = 69) are congregate nutrition sites. Twelve percent (N = 33) are hospitals. Eight percent (N = 22) are skilled nursing facilities. Two and one-half percent (N = 7) are mental retardation centers. One-half percent (N = 1) is a community health center, and one and one-half percent (N = 4) are classified as other. Other includes a combination retirement center, public cafeteria, and medical center, a psychiatric facility, a children's facility and the Public Health Department. It is important to note that in order to treat each congregate nutrition site as a separate account, some divisions were made arbitrarily by the researcher. The actual percentage for this type of account could be greater than shown, or less, if county or area projects, including several sites, are considered as a single account (Figure 1).

The typical respondent in this study has seven accounts and has been employed an average of five years at each account. They tend to travel an average distance of 37 miles to each account where they spend nine hours serving 78 clients (Table III).

The number of accounts per individual Oklahoma consultant ranged from 1-23 (Table IV). Consultants with the higher number of accounts tend to serve groups of congregate nutrition sites where time can be shared among accounts and combined in-service training for foodservice employees is possible. Only 14 (34 percent) of the respondents indicated an interest in obtaining additional accounts. The range of increase (1-3 accounts) varied according to the number of accounts already served. Even after increases, none of these respondents would have more than eleven accounts, which based on the minimal eight hour requirement,



*In order to treat each congregate nutrition site as a separate account, some divisions were made arbitrarily by the researcher. The actual percentage for this type of account could be greater than shown.

Figure 1. Percentage of Total Consultant Accounts by Type of Facility
Total Number of Accounts = 280

would mean greater than half time but less than full time employment.

TABLE IV

TIME SPENT WITH ACCOUNTS ON A MONTHLY BASIS

Hours Spent:	N[1]	Range	Mean[2]	Standard Error of Mean	Sum
When first taking a new account	39	8-16	9.14	0.36	356.5
After one year with an account	39	6-24	8.77	0.47	342
On work done away from facilities for total accounts	37	0-30	6.71	1.25	248.25

[1]Number of sample size may vary due to failure of some respondents to answer or nonquantitative responses such as "depends on size" or "whatever the contract calls for".

[2]When respondents gave answer as a range rather than a single number, the average of the range was used in calculations.

When first taking a new account, respondents (N = 39) tend to spend an average of 9.14 hours within that facility. The most frequently mentioned time was eight hours (N = 25, 64 percent). After having an account for one year, the average time dropped slightly to 8.77 hours. Again, the most frequently mentioned time was eight hours (N = 31, 79 percent). These figures tend to indicate that the majority of Oklahoma consultants are being employed for the eight hour minimum only, required to meet federal Medicare standards. Consultants indicated that they spend an average of 6.71 hours per month on work done away from the

facilities they serve. The types of work most often done away from facilities included planning, modifying and reviewing menus (N = 30), preparing for in-service education (N = 22) and preparing records and reports (N = 16).

Respondents were asked if they believed the time spent within the facilities they serve is adequate to accomplish all that needs to be accomplished. Over one-half (N = 24, 57 percent) answered no, 33 percent (N = 14) answered yes and 10 percent (N = 4) answered both yes and no depending on the facility. Respondents emphasized the importance of a qualified foodservice supervisor and well trained foodservice workers as the key to having enough time. Constant worker turnover was cited as a problem. Several respondents indicated that there was not enough time for nutritional assessment and patient care plans and that records and reports required by survey teams consumed too much time.

Respondents were asked to check and list activities which they perform before accepting a new account. Fifty-seven percent (N = 24) indicated that they review the complete facility, while 31 percent (N = 31) review only the dietary department. The most frequently mentioned activity was talking with the facility administrator concerning problem areas (N = 35, 83 percent) (Table V).

Functional Analysis

Role functions were grouped into 10 separate categories: menu planning, food purchasing, food preparation, foodservice, sanitation, therapeutics, dietary administration, records and reports, equipment and layout, and education. Seventy functional activities were delineated within the 10 functional groupings. Table VI contains the frequency of response and percent of performance of these activities by the

TABLE V

FREQUENCY AND PERCENT OF RESPONDENTS INDICATING ACTIVITIES WHICH CONSULTANTS PERFORM BEFORE ACCEPTING A NEW ACCOUNT
TOTAL OF CONSULTANTS = 42

Activities	f	%
Talk with the administrator concerning problem areas	35	83
Check mileage from business base	35	83
Talk with foodservice supervisor concerning problem areas	32	76
Observe the foodservice	31	74
Review the complete facility	24	57
Evaluate the foodservice	22	52
Become acquainted with the foodservice personnel	20	48
Review only the dietary department	13	31
Talk with director of nursing concerning problem areas	13	31
Set fee and benefit agreement	4	10
Check reputation of facility with previous consultant	3	7
Determine consultant responsibilities and duties in terms of a contract	3	7
Determine facility expectations and obligations in terms of a contract	3	7

TABLE VI

FUNCTIONAL ACTIVITIES PERFORMED BY THE CONSULTANT DIETITIAN AND THE FOODSERVICE SUPERVISOR IN HEALTH CARE FACILITIES

Activities	N*	CD Only f	CD Only %	Both CD and FS f	Both CD and FS %	FS Only f	FS Only %	Neither CD or FS f	Neither CD or FS %
A. Menu Planning									
(1) Plans and writes resident menus	42	5	12	31	74	6	14	0	0
(2) Plans and writes personnel menus	39	4	10	19	49	7	18	9	23
(3) Makes menu changes	42	2	5	32	76	8	19	0	0
(4) Files menus	40	0	0	4	10	31	78	5	12
B. Food Purchasing									
(5) Determines the food items	41	0	0	14	34	27	66	0	0
(6) Writes food specifications	41	3	7	17	41	13	32	8	20
(7) Places orders	40	1	2	0	0	38	96	1	2
(8) Confers with salespersons	41	0	0	17	41	22	54	2	5
(9) Inspects the quantity and quality of deliveries	41	2	5	12	29	27	66	0	0
C. Food Preparation									
(10) Standardizes recipes	42	8	19	20	48	11	26	3	7
(11) Modifies recipes for energy savings	41	5	12	12	29	4	10	20	49
(12) Determines amount to be prepared	41	0	0	12	29	28	69	1	2
(13) Prepares menu items	41	0	0	4	10	26	63	11	27
(14) Tests menu items for taste and appearance	42	1	2	32	76	5	12	4	10
(15) Assigns work to employees	41	1	2	2	5	36	88	2	5
D. Foodservice									
(16) Supervises the dishing-up of menu items	40	1	2	29	73	10	25	0	0

TABLE VI (Continued)

Activities	N*	CD Only f	CD Only %	Both CD and FS f	Both CD and FS %	FS Only f	FS Only %	Neither CD or FS f	Neither CD or FS %
(17) Maintains portion control	42	0	0	25	60	17	40	0	0
(18) Supervises service and distribution of meals	41	0	0	21	51	20	49	0	0
(19) Checks plate waste	42	2	5	34	81	6	14	0	0
E. Sanitation									
(20) Establishes sanitation standards	40	8	20	28	70	2	5	2	5
(21) Checks dishwashing temperatures	40	7	18	30	75	3	7	0	0
(22) Checks refrigerator temperatures	40	7	18	20	70	5	12	0	0
(23) Establishes cleaning schedules and procedure	41	1	2	29	71	10	25	1	2
(24) Maintains standards	42	2	5	22	52	17	41	1	2
(25) Assigns cleaning tasks	41	0	0	8	20	32	78	1	2
F. Therapeutics									
(26) Assesses nutritional status of residents	41	20	49	21	51	0	0	0	0
(27) Calculates modified diets	42	27	64	14	33	1	2	0	0
(28) Plans menus for modified diets	42	17	41	27	52	3	7	0	0
(29) Confers with patients regarding modified diets	42	11	26	30	72	1	2	0	0
(30) Adjusts modified diets	42	22	52	18	43	2	5	0	0
(31) Assesses drug-nutrient interrelationships	42	30	72	9	21	0	0	3	7
(32) Discusses diets with physicians	41	23	56	10	25	3	7	5	12
G. Dietary Administration									
(33) Develops department organization	41	4	10	27	66	3	7	7	17

TABLE VI (Continued)

Activities	N*	CD Only f	CD Only %	Both CD and FS f	Both CD and FS %	FS Only f	FS Only %	Neither CD or FS f	Neither CD or FS %
(34) Develops department procedures	41	5	12	30	13	5	12	1	3
(35) Develops department policies	41	7	17	27	66	3	7	4	10
(36) Prepares job descriptions	41	5	12	27	66	6	15	3	7
(37) Initially interviews department personnel	41	1	2	2	5	30	73	8	20
(38) Hires department personnel	41	0	0	0	0	32	78	9	22
(39) Periodically evaluates personnel	41	2	5	9	22	24	58	6	15
(40) Conducts exit interviews with personnel	39	1	2	3	8	23	59	12	31
(41) Communicates with other departments	42	4	10	35	83	2	5	1	2
(42) Sets overall standards for quality assurance	41	15	37	24	58	0	0	2	5
H. Records and Reports									
a. Develops the following records, forms or reports:									
(43) Census records	40	7	17	8	20	13	33	12	30
(44) Summary of food costs	40	5	12	8	20	14	35	13	33
(45) Staffing costs	40	3	7	7	18	14	35	16	40
(46) Inventories	40	5	13	7	17	21	53	7	17
(47) Budgets	39	1	3	11	28	8	20	19	49
(48) Dietary progress notes for patient medical record	41	19	46	15	37	3	7	4	10
(49) Summary of consultant visitation accomplishments	42	33	79	6	14	1	2	2	5
(50) Cost/benefit changes suggested or implemented	39	13	33	14	36	2	5	10	26

TABLE VI (Continued)

Activities	N*	CD Only f	CD Only %	Both CD and FS f	Both CD and FS %	FS Only f	FS Only %	Neither CD or FS f	Neither CD or FS %
b. Maintains the following records, forms or reports:									
(51) Census records	40	0	0	6	15	23	58	11	27
(52) Summary of food costs	40	2	5	4	10	23	58	11	27
(53) Staffing costs	40	1	2	3	8	20	50	16	40
(54) Inventories	39	0	0	1	3	31	79	7	18
(55) Budgets	40	0	0	6	15	16	40	18	45
(56) Dietary progress notes for patient medical record	40	18	45	14	35	5	13	3	7
(57) Summary of consultant visitation accomplishments	41	32	79	7	17	1	2	1	2
(58) Cost/benefit changes suggested or implemented	39	11	28	17	44	2	5	9	23
I. Equipment and Layout									
(59) Within existing limitations, plans for use of space and equipment for maximum efficiency	41	6	14	23	56	3	7	9	23
(60) Keeps records of power load and gas requirements for each piece of equipment used in the facility	41	0	0	1	2	3	8	37	90
(61) Makes regular preventive maintenance checks of all equipment	40	2	5	10	25	10	25	18	45
(62) Sets energy conservation goals for equipment use	41	0	0	6	15	3	7	32	78

TABLE VI (Continued)

Activities	N*	CD Only f	CD Only %	Both CD and FS f	Both CD and FS %	FS Only f	FS Only %	Neither CD or FS f	Neither CD or FS %
(63) Writes specifications for purchase of new equipment	40	16	40	5	13	3	7	16	40
(64) In remodeling or new construction, works with architect and others to interpret kitchen needs	41	13	32	9	22	2	5	17	41
(65) Assumes responsibility for layout and equipment of remodeled or new dietary facility	41	9	22	9	22	2	5	21	51
J. Education and Training									
(66) Conducts orientation for new employees	41	0	0	5	12	34	13	2	5
(67) Conducts in-service training for foodservice employees	42	27	64	14	34	0	0	1	2
(68) Conducts in-service education in energy conservation	40	12	30	12	30	0	0	16	40
(69) Conducts nutrition education for patients and their families	40	22	56	16	40	1	2	1	2
(70) Conducts nutrition education for professionals	40	26	66	7	17	7	17	0	0

*N = Varied from 39-42.

consultant dietitian (CD) and the foodservice (FS) in health care facilities. Table VII contains the frequency of performance of these same activities by the consultant dietitian only.

Only two activities are performed by the consultant dietitian alone 75 percent or more of the time. The first activity is develops records, forms, or reports to summarize consultant visitation accomplishments. Seventy-eight percent perform this activity every visit while 22 percent perform it only occasionally. The second activity performed by 75 percent or more of the consultants alone is maintains records, forms or reports to summarize consultant visitation accomplishments. Ninety-five percent perform this activity every visit while five percent perform it only occasionally.

Only seven activities are performed by the consultant dietitian alone, 50-74 percent of the time. Fifty-five percent of the consultants calculate modified diets every visit to a facility while 45 percent do this only occasionally. Fifty-four percent adjust modified diets every visit, while the remainder do so only occasionally. Fifty-three percent assess drug-nutrient interrelationships every visit. Nineteen percent of the consultants surveyed discuss diets with physicians every visit, while 81 percent do so only occasionally. Ninety-eight percent conduct in-service training for foodservice employees and 43 percent conduct in-service education for patients and their families every visit (Table VII).

The consultant dietitian and the foodservice supervisor jointly perform the following activities 75 percent or more of the time: makes menu changes, tests menu items for taste and appearance, checks plate waste, checks dish washing temperatures and communicates with other

TABLE VII

FREQUENCY OF PERFORMANCE OF FUNCTIONAL ACTIVITIES BY THE CONSULTANT DIETITIAN

Activities	N*	Only occasionally		Almost every visit or at home or office prior to visit	
		f	%	f	%
A. Menu Planning					
(1) Plans and writes resident menus	33	26	79	7	21
(2) Plans and writes personnel menus	23	22	96	1	4
(3) Makes menu changes	34	20	59	14	41
(4) Files menus	4	4	100	0	0
B. Food Purchasing					
(5) Determines the food items	14	9	64	5	36
(6) Writes food specifications	18	16	89	2	11
(7) Places orders	1	1	100	0	0
(8) Confers with salespersons	16	15	94	1	6
(9) Inspects the quantity and quality of deliveries	13	9	69	4	31
C. Food Preparation					
(10) Standardizes recipes	26	23	88	3	12
(11) Modifies recipes for energy savings	16	15	94	1	6
(12) Determines amount to be prepared	12	9	75	3	25
(13) Prepares menu items	4	4	100	0	0
(14) Tests menu items for taste and appearance	32	13	41	19	59
(15) Assigns work to employees	3	1	33	2	67
D. Foodservice					
(16) Supervises the dishing-up of menu items	30	6	20	24	80
(17) Maintains portion control	25	6	24	19	76
(18) Supervises service and distribution of meals	20	5	25	15	75

TABLE VII (Continued)

Activities	N*	Only occasionally		Almost every visit or at home or office prior to visit	
		f	%	f	%
(19) Checks plate waste	36	15	42	21	58
E. Sanitation					
(20) Establishes sanitation standards	36	14	39	27	61
(21) Checks dishwashing temperatures	35	11	31	24	69
(22) Checks refrigerator temperatures	34	5	15	29	85
(23) Establishes cleaning schedules and procedures	30	23	77	7	23
(24) Maintains standards	24	8	33	16	67
(25) Assigns cleaning tasks	8	6	75	2	25
F. Therapeutics					
(26) Assesses nutritional status of residents	40	8	20	32	80
(27) Calculates modified diets	40	18	45	22	55
(28) Plans menus for modified diets	38	23	61	15	39
(29) Confers with patients regarding modified diets	40	10	25	30	75
(30) Adjusts modified diets	39	18	46	21	54
(31) Assesses drug-nutrient inter-relationships	38	18	47	20	53
(32) Discusses diets with physicians	32	26	81	6	19
G. Dietary Administration					
(33) Develops department organization	30	28	93	2	7
(34) Develops department procedures	34	30	88	4	12
(35) Develops department policies	33	30	91	3	9
(36) Prepares job descriptions	31	30	97	1	3
(37) Initially interviews department personnel	3	1	33	2	67

TABLE VII (Continued)

Activities	N*	Only occasionally		Almost every visit or at home or office prior to visit	
		f	%	f	%
(38) Hires department personnel	0	0	0	0	0
(39) Periodically evaluates personnel	10	9	90	1	10
(40) Conducts exit interviews with personnel	3	1	33	2	67
(41) Communicates with other departments	37	7	19	30	81
(42) Sets overall standards for quality assurance	36	20	56	16	44
H. Records and Reports					
a. Develops the following records, forms or reports:					
(43) Census records	14	11	79	3	21
(44) Summary of food costs	13	8	62	5	38
(45) Staffing costs	10	8	80	2	20
(46) Inventories	12	10	83	2	17
(47) Budgets	11	8	73	3	27
(48) Dietary progress notes for patient medical record	32	16	50	16	50
(49) Summary of consultant visitation accomplishments	37	8	22	29	78
(50) Cost/benefit changes suggested or implemented	27	21	78	6	22
b. Maintains the following records, forms or reports:					
(51) Census records	5	1	20	4	80
(52) Summary of food costs	6	2	33	4	67
(53) Staffing costs	4	2	50	2	50
(54) Inventories	1	0	0	1	100
(55) Budgets	6	3	50	3	50

TABLE VII (Continued)

Activities	N*	Only occasionally f	Only occasionally %	Almost every visit or at home or office prior to visit f	Almost every visit or at home or office prior to visit %
(56) Dietary progress notes for patient medical record	31	5	16	26	84
(57) Summary of consultant visitation accomplishments	37	2	5	35	95
(58) Cost/benefit changes suggested or implemented	28	15	54	13	46
I. Equipment and Layout					
(59) Within existing limitations, plans for use of space and equipment for maximum efficiency	27	26	96	1	4
(60) Keeps records of power load and gas requirements for each piece of equipment used in the facility	1	0	0	1	100
(61) Makes regular preventive maintenance checks of all equipment	12	9	75	3	25
(62) Sets energy conservation goals for equipment use	6	5	83	1	17
(63) Writes specifications for purchase of new equipment	21	20	95	1	5
(64) In remodeling or new construction, works with architect and others to interpret kitchen needs	21	20	95	1	5
(65) Assumes responsibility for layout and equipment of remodeled or new dietary facility	18	17	94	1	6
J. Education and Training					
(66) Conducts orientation for new employees	5	3	60	2	40

TABLE VII (Continued)

Activities	N*	Only occasionally		Almost every visit or at home or office prior to visit	
		f	%	f	%
(67) Conducts in-service training for foodservice employees	40	1	2	39	98
(68) Conducts in-service education in energy conservation	23	20	87	3	13
(69) Conducts nutrition education for patients and their families	37	21	57	16	43
(70) Conducts nutrition education for professionals	33	30	91	3	9

*N = Varied from 1-40 depending upon the actual number of consultants which perform each activity.

departments. Eighty-one percent of the consultants indicated that they communicate with other departments every visit (Table VII).

The consultant dietitian and the foodservice supervisor perform 10 additional activities jointly, 50 to 74 percent of the time. These include plans and writes resident menus, supervises the dishing up of menu items, maintains portion control, supervises service and distribution of meals, establishes sanitation standards, checks refrigerator temperatures, establishes cleaning schedules and procedures, maintains sanitation standards, assesses the nutritional status of residents, plans menus for modified diets, and confers with patients regarding modified diets. Eighty percent of the consultants supervise the dishing up of menu items and assess the nutritional status of residents every visit to a facility. Seventy-five percent of the consultants help maintain portion control, supervise the service and distribution of meals, and confer with patients regarding modified diets every visit (Table VII).

Seven activities are performed by the foodservice supervisor alone 75 percent or more of the time. These activities include: filing menus, placing food purchase orders, assigning food preparation and cleaning tasks to employees, hiring departmental personnel, maintaining records, forms or reports for inventories, and conducting orientation for new foodservice employees.

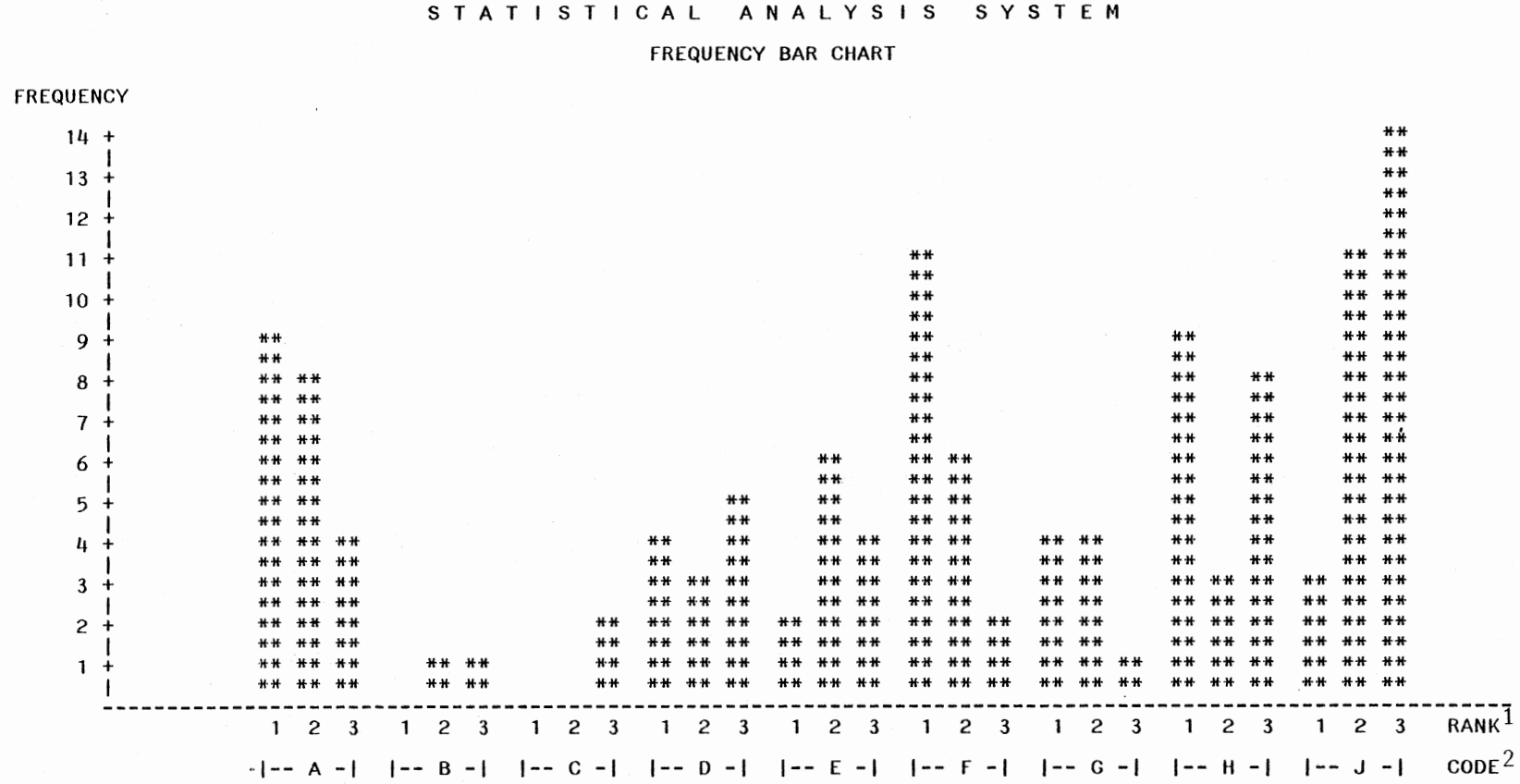
Five activities are performed by the foodservice supervisor alone 50 to 75 percent of the time. These include: determines food items for purchase, confers with salespersons, inspects the quantity and quality of deliveries, determines the amount of food to be prepared and prepares menu items.

Two activities are not performed by either the consultant dietitian

or the foodservice supervisor 75 percent or more of the time. These include: keeps records of power load and gas requirements for each piece of equipment used in the facility and sets energy conservation goals for equipment use. The activity, assumes responsibility for layout and equipment use, is not performed by either the consultant dietitian or the foodservice supervisor 50-74 percent of the time.

Based on the preceding frequency and percentage data, two functional areas can be identified as being primarily the domain of the consultant dietitian: therapeutics, and education and training. Shared areas of responsibility by the consultant and the foodservice supervisor include: menu planning, foodservice, sanitation, and dietary administration. Three areas seem to be primarily the domain of the foodservice supervisor: food purchasing, food preparation and maintaining records and reports, especially for census, food and staffing costs, and inventories. Developing records and reports, with the exception of consultant visitation, and equipment and layout are not performed by either the consultant dietitian or the foodservice supervisor.

Respondents ranked three functions which they perceived to consume the greatest amount of time (Figure 2, Table VIII). Therapeutics was ranked first, most frequently, by 27 percent of the respondents (N = 11). Education was ranked second, most frequently, by 27 percent of the respondents (N = 11) and also third, most frequently, by 34 percent of the respondents (N = 14). Education appeared two times, as a first preferred choice within ranks two and three, with 25 respondents (61 percent) involved in the ranking. Menu planning therapeutics, and records and reports appeared two times each in the rankings with 17 respondents (42 percent) involved in ranking each one. Foodservice appeared



[1]By rank order frequency:

1. first choice
2. second choice
3. third choice

[2]Functional Codes:

A. Menu Planning
B. Food Purchasing
C. Food Preparation
D. Foodservice
E. Sanitation
F. Therapeutics
G. Dietary Administration
H. Records and Reports
I. Equipment and Layout
J. Education

Figure 2. Functions Perceived by Consultants to Consume the Greatest Amount of Time

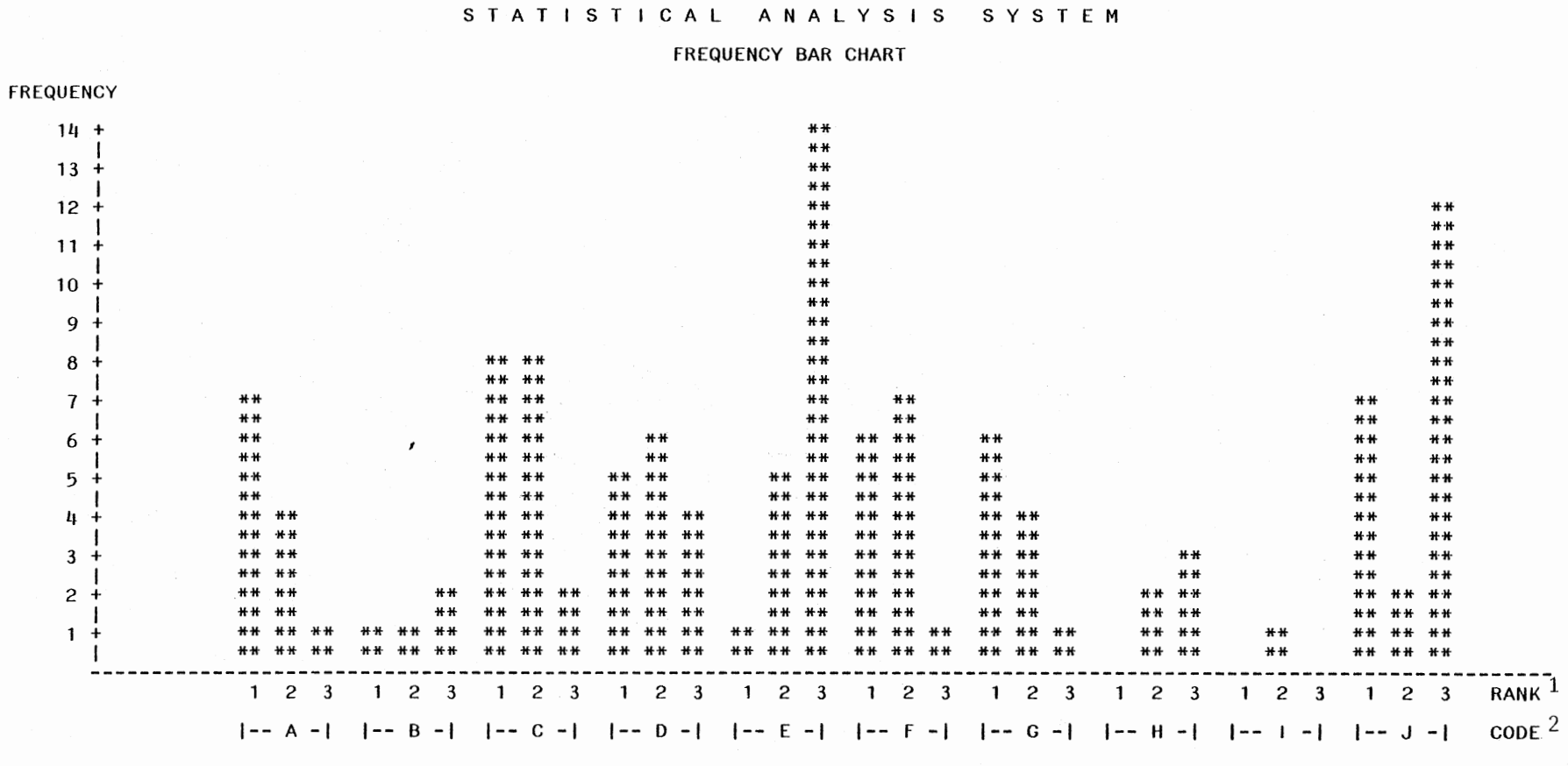
TABLE VIII

RANKINGS OF FUNCTIONS PERCEIVED BY CONSULTANTS TO CONSUME THE GREATEST AMOUNT OF TIME

Rank	Functional Grouping	f	%
1	Therapeutics	11	27
	Menu Planning	9	22
	Records and Reports	9	22
	Foodservice	4	10
	Dietary Administration	4	10
	Unranked Functions	5	9
	Total	N = 42	100%
2	Education	11	27
	Menu Planning	8	20
	Sanitation	6	15
	Therapeutics	6	15
	Unranked Functions	11	23
	Total	N = 42	100%
3	Education	14	34
	Records and Reports	8	20
	Foodservice	5	12
	Unranked Functions	14	34
	Total	N = 42	100%

two times in the rankings with nine respondents (22 percent) involved in the rankings. Food purchasing, food preparation, and equipment layout and design did not appear in the rankings. On the basis of the above data, education and training can be judged to be the functional area which consumes the greatest amount of consultant time, followed by menu planning, therapeutics, and records and reports as equally weighted second choices, and foodsevice as the third choice. These data tend to agree with the frequency and percentage data summarized in the preceding paragraph, with the exception of maintaining records and reports, which tended to be the domain of the foodservice supervisor. In previous studies, Brenner (1971) also found education and training to consume a high percentage of the consultant's time. Other researchers have reported menu planning and therapeutics to be high cnosumers of consultant time (Smith, 1975, Spear, 1978, Gilbride, 1982).

Respondents ranked three functions which they perceived to be most important for quality assurance (Figure 3, Table IX). Food preparation was ranked first, most frequently, by nineteen percent of the respondents (N = 8) and second, most frequently, again, by nineteen percent of the respondents (N = 8). Sanitation was ranked third, most frequently, by 33 percent of the respondents (N = 14). Education appeared three times in the rankings with 26 respondents (63 percent) involved in the rankings. Food preparation appeared two times in the rankings, as a first choice within two ranks, with sixteen respondents (38 percent) involved in the rankings. Therapeutics appeared two times in the rankings with 14 respondents (34 percent) involved in the rankings. Foodservice also appeared two times in the rankings, twice as a third choice within ranks, with 10 respondents (24 percent) involved in the rankings. On



[1]By rank order frequency:

1. first choice
2. second choice
3. third choice

[2]Functional Codes:

A. Menu Planning	F. Therapeutics
B. Food Purchasing	G. Dietary Administration
C. Food Preparation	H. Records and Reports
D. Foodservice	I. Equipment and Layout
E. Sanitation	J. Education

Figure 3. Functions Perceived by Consultants as Most Important for Quality Assurance

TABLE IX

RANKINGS OF FUNCTIONS PERCEIVED BY CONSULTANTS AS MOST IMPORTANT FOR QUALITY ASSURANCE

Rank	Functional Grouping	f	%
1	Food Preparation	8	19
	Menu Planning	7	17
	Education	7	17
	Therapeutics	7	17
	Dietary Administration	7	17
	Unranked Functions	6	13
	Total	N = 42	100%
2	Food Preparation	8	19
	Therapeutics	7	17
	Education	7	17
	Foodservice	6	14
	Unranked Functions	14	33
	Total	N = 42	100%
3	Sanitation	14	33
	Education	12	29
	Foodservice	4	10
	Unranked Functions	12	28
	Total	N = 42	100%

the basis of the above data, education and training can be judged to be the most important functional area for quality assurance, food preparation as the second most important choice and therapeutics as the third most important choice. Compared to the previous rankings of time consumption, these rankings of perceived quality assurance seem to be more widely spread and less clearly distinguished (Figures 2 and 3). This is probably because time perceptions are based on a practiced reality, whereas quality assurance perceptions involve a higher degree of value judgement.

Consultants were asked if they perceived their responsibilities as advice and counsel, a staff function, or as direct supervisor, a line function. Ninety-three percent (N = 39) perceived their responsibilities to be primarily advice and counsel. Two (5 percent) answered direct supervision and one (2 percent) answered both advice and counsel and direct supervision. This finding concurs with two previous studies (Brenner, 1971, Gilbride, 1982). The frequency and percentage data collcollected from the present study, showed a high number of areas of responsibility jointly performed by the consultant and the foodservice supervisor, and may indicate more direct supervision, in reality of practice than consultants perceive to be so.

The respondents were asked to express their attitude toward consulting as a career choice. Forty-five percent (N = 19) felt that consulting was highly satisfying, 53 percent (N = 22) moderately satisfying and two percent (N = 1) did not find consulting satisfying at all. A complete listing of respondents' attitudes in included in Appendix D.

Perceived Continuing Education Needs of Consultant Dietitians

Continuing education needs were grouped into five areas: entrepreneurial (establishing a consulting service), adapting to a facility, organization and management, working as a professional, and quality assurance and nutritional care. Forty-four concerns were delineated within the five need areas.

Thirty-six of the 44 continuing education concerns were perceived to be more important to very important, by 50 percent or more of the respondents. Table X contains the highest level of concerns divided into three percentage categories. The eight concerns selected most frequently include: working with the administrator, overall standards for quality assurance, working with the foodservice supervisor, state and federal regulations, evaluation of a prospective facility, developing and writing policies and procedures, staff development and in-service education, and principles of sanitation and food safety, including techniques of inspection. The activities working with unions, forming partnerships, incorporation, writing for professional journals, business logos, letterheads and other symbols, establishing a credit line, writing for the public (newspapers and magazines), and computer methods and applications were perceived to be only slightly important to unimportant by 50 percent or more of the respondents.

Based on the frequency and percentage of response data in Table X, adapting to the facility can be seen as the single most important need area with all four of its concerns being selected by 91 to 100 percent of the respondents. Quality assurance and nutritional care is the second most important need area with three activities falling into the 91-100

TABLE X

PERCEIVED CONTINUING EDUCATION NEEDS OF CONSULTANT DIETITIANS IN HEALTH CARE FACILITIES

Activities:	Perceived as Important to Very Important By: 71–80% of respondents N	f	%	81–90% of respondents N	f	%	91–100% of respondents N	f	%
1. Entrepreneurial (establishing a consulting service):									
(1) Small business management[a]									
(2) Incorporation[b]									
(3) Forming partnerships[b]									
(4) Insurance[a]									
(5) Record keeping systems				40	33	83			
(6) Establishing a credit line[b]									
(7) Business logos, letterheads, and other symbols[b]									
(8) Writing and securing contracts	40	30	75						
(9) Setting and collecting fees				40	36	90			
2. Adapting to a facility:									
(10) Evaluation of a prospective facility							40	38	95
(11) Working with the administrator							42	42	100
(12) Working with the foodservice supervisor							42	41	98
(13) State and federal regulations							42	41	98

TABLE X (Continued)

Activities:	Perceived as Important to Very Important By: 71–80% of respondents N	f	%	81–90% of respondents N	f	%	91–100% of respondents N	f	%
3. Organization and management:									
(14) Developing and writing policies and procedures							40	38	95
(15) Staff development and in-service education							41	39	95
(16) Personnel management				41	36	88			
(17) Working with unions[b]									
(18) Zero base budgeting[a]									
(19) Cost control				40	36	90			
(20) Cost/benefit documentation[b]				40	35	88			
(21) Computer methods and applications[b]									
(22) Equipment layout and design engineering[a]									
(23) Developing energy conservation policies and procedures[a]									
4. Working as a professional:									
(24) Professional dress and tools of the trade	41	32	78						
(25) Professional conduct and ethics				41	35	85			

TABLE X (Continued)

Activities	Perceived as Important to Very Important By: 71–80% of respondents N	f	%	81–90% of respondents N	f	%	91–100% of respondents N	f	%
(26) Time and stress management				39	32	83			
(27) Interviewing techniques	40	31	76						
(28) Media relationships (newspapers, radio, television)[a]									
(29) Writing for professional journals[b]									
(30) Writing for the public (newspapers & magazines)[b]									
(31) Interpretation and application of new research				40	33	83			
5. Quality assurance and nutritional care:									
(32) Overall standards for quality assurance							41	41	100
(33) Third party reimbursement[a]									
(34) Patient rights standards									
(35) Nutritional assessment				41	35	85			
(36) Socio-cultural influences and food behavior	41	29	71						
(37) Charting and documentation				41	37	90			
(38) Patient care plans and audits				41	35	85			
(39) Behavior modification									
(40) Medical history-high risk conditions				40	34	85			

TABLE X (Continued)

Activities:	Perceived as Important to Very Important By: 71-80% of respondents N	f	%	81-90% of respondents N	f	%	91-100% of respondents N	f	%
(41) Food-drug interrelationships				41	37	90			
(42) Nutritional implications of chronic disorders				41	36	88			
(43) Gerontology/study of aging							40	37	93
(44) Principles of sanitation and food safety including techniques for inspection							41	39	95

*N = Varied from 39-42.

[a] = These needs were perceived by 50-69% of the respondents as being important to very important.

[b] = These needs were perceived by 50% or more of the respondents as being slightly important to unimportant.

percent response range, followed by organization and management with two need areas falling into the 91-100 percent response range.

Additional concerns were listed by respondents. These included a high emphasis on communication techniques with patients, family, and professional and non-professional health care personnel. Also mentioned were updates on new product development and visual aides such as slides to help with nutritional assessment, especially for the indications of malnutrition.

Respondents (N = 38) reported spending a range of 0-10 hours per week reading professional literature. This is higher than the 4.1 hours per month reported by Holli (1982) conducted among 230 Illinois dietitians. It might be expected that consultants in private practice would tend to spend an accelerated amount of time in this activity to keep current on new research findings since there is limited opportunity for consultantion with other professionals.

Adapting to the facility, which included four areas of concern (Table X) clearly emerged as the highest continuing education need in this study. This area has not been dealt with in previous studies. Quality assurance and organization and management, which were the second and third areas of need in this study, were also found to be high level continuing education needs in two previous studies (Brenner, 1971, Smith, 1975).

Testing of Hypotheses

H_1: There will be no differences in the responsibilities and frequency of activities of consultant dietitians based on age, degree, length of ADA membership, route to registration, employment status, and

the existence of a plan of work priorities.

Chi square values were determined for the relationship between 70 functional activities (responsibilities) and the six selected demographic variables referred to above. Differences were considered to be significant at P = .05 or less. Thirty-three significant differences were found (Table XI). (See Appendix F for complete chi square tables.)

Differences were found between seven functional activities and age. The 20-49 year old group tended to perform more activities by themselves or not at all. The 50 years and over age group tended to perform more activities more jointly with the foodservice supervisor (Tables XX through XXVI, Appendix F).

Differences were found between four functional activities and degree attained. Both, respondents with baccalaureate degrees, only, and those with advanced degrees, tended to delegate most of the activities under consideration to the foodservice supervisor. There was a slight tendency for more respondents with baccalaureate degrees only, to perform activities jointly with the foodservice supervisor. The differences found may be more due to differences between the sizes of the two groups than actual differences in performance. Only 12 respondents hold advanced degrees. Only one of these has institution management as a major emphasis. Two have major emphasis in public health. The primary major emphasis is foods and nutrition (Tables XXVII through XXX, Appendix F).

Differences were found between three functional activities and length of ADA membership. There was a tendency for respondents who have been members of ADA for less than 20 years to perform more of the activities under consideration jointly with the foodservice supervisor. Respondents who have been members of the ADA for more than 20 years

TABLE XI

CHI SQUARE DETERMINATIONS BETWEEN FUNCTIONAL ACTIVITIES AND SELECTED DEMOGRAPHIC VARIABLES*

Functional Activities		Selected Demographic Variables: Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Menu Planning							
Plans and writes resident menus	X^2	6.39					9.53
	df	2					2
	Prob	0.04					0.01
Makes menu changes	X^2	6.42				13.38	
	df	2				6	
	Prob	0.04				0.04	
Food Preparation							
Modifies recipes for energy savings	X^2				9.06		9.72
	df				3		3
	Prob				0.03		0.02
Assigns work to employees	X^2		8.16				
	df		3				
	Prob		0.04				
Sanitation							
Establishes cleaning schedules and procedures	X^2				9.13		
	df				3		
	Prob				0.03		
Therapeutics							
Confers with patients regarding modified diets	X^2						13.02
	df						2
	Prob						0.002

TABLE XI (Continued)

Functional Activities		Selected Demographic Variables: Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Dietary Administration							
Prepares job descriptions	X^2						7.96
	df						3
	Prob						0.05
Hires department personnel	X^2						3.96
	df						1
	Prob						0.05
Conducts exit interviews with personnel	X^2		9.35				
	df		3				
	Prob		0.02				
Records and Reports							
a. Develops the following records, or reports:							
Census records	X^2		8.56	9.05	12.10		
	df		3	3	2		
	Prob		0.04	0.03	0.01		
Summary of food costs	X^2			8.34	11.61		
	df			3	3		
	Prob			0.04	0.01		
Staffing costs	X^2	8.70			8.58		
	df	3			3		
	Prob	0.03			0.04		
Inventories	X^2	8.83		11.56			
	df	3		3			
	Prob	0.03		0.01			

TABLE XI (Continued)

Functional Activities		Selected Demographic Variables: Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Budgets	X^2	8.35			17.87		
	df	3			3		
	Prob	0.04			0.001		
Cost/benefit changes suggested or implemented	X^2	10.58			10.17		
	df	3			3		
	Prob	0.01			0.02		
b. Maintains the following records, forms or reports:							
Census records	X^2				7.28		
	df				2		
	Prob				0.03		
Summary of food costs	X^2				8.62		
	df				3		
	Prob				0.03		
Inventories	X^2		6.55				
	df		2				
	Prob		0.04				
Budgets	X^2				12.14		
	df				2		
	Prob				0.002		
Cost/benefit changes suggested or implemented	X^2	8.51			10.17	18.95	
	df	3			3	9	
	Prob	0.04			0.02	0.03	

*Completed X^2 Tables are in Appendix E.

tended to delegate more activities to the foodservice supervisor (Tables XXXI through XXXIII, Appendix F).

Differences were found between 11 functional activities and ADA registration route. Respondents who are registered under the Grandfather Clause tended to perform more activities jointly with the foodservice supervisor. Those achieving registration by way of the R.D. Exam indicated that many of the activities under consideration were not performed by either the consultant or the foodservice supervisor. When activities are performed, they tended to be carried out by the consultant or the foodservice superviros alone (Tables XXXIV through LXIV, Appendix F).

Differences were found between two functional activities and employment status. Full time consultants tended to perform activities either alone or jointly with the foodservice supervisor. Half time or more but less than full time, and less than half time consultants tended to perform activities jointly with the foodservice supervisor. Respondents consulting as a second job answered very inconsistently with regard to the activities being considered. Here again, as with the highest degree attained, differences may be due more to the differences in group size than the variable under consideration (Tables XLV through XLVI, Appendix F).

Differences were found between six functional activities and whether or not the consultant writes a plan of work priorities when first entering a new facility. There was a tendency for the consultants who write a plan of priorities to perform more activities jointly with the foodservice supervisor (Tables XLVII through L, Appendix F). Prior planning may allow the consultant to more effectively utilize the skills

of the foodservice supervisor.

Based on the thirty-three differences between the functional activities variables and the selected demographic variables, the researcher failed to accept H_1. Differences found between functional activities and degree attained, and also, employment status, may, however, be due to differences in group size rather than the variables under consideration.

Chi square values were also determined for frequency of performance by the consultant of functional activities (responsibilities) and the same six selected demographic variables as used in the previous chi square determinations. Differences were again considered to be significant at P = .05 or less. Twenty-one significant differences were found (Table XII). (See Appdneix G for complete chi square tables.)

Differences were found between the frequency of performance of six functional activities and age. The 20-49 year old group tended to perform the activities under consideration only occasionally, whereas, the 50 years and over group perform these same activities almost every visit or at their home or office prior to a visit (Tables LII through LVII, Appendix G).

Differences were found between the frequency of performance of three functional activities and the highest degree attained. Respondents with a baccalaureate degree only, are split between occasional performance of activities and performance every visit. Respondents with advanced degrees tended to perform these same activities only occasionally. Differences may, however, be due to differences in group size (Tables LVIII through LX, Appendix G).

Differences were found between the frequency of performance of three functional activities and length of ADA membership. Respondents with

TABLE XII

CHI SQUARE DETERMINATIONS BETWEEN FREQUENCY OF PERFORMANCE BY CONSULTANT OF FUNCTIONAL ACTIVITIES AND SELECTED DEMOGRAPHIC VARIABLES*

Functional Activities		Selected Demographic Variables					
		Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Menu Planning							
Plans and writes resident menus	X^2		4.07		4.57		
	df		1		1		
	Prob		0.04		0.03		
Makes menu changes	X^2	5.25		8.99			
	df	1		1			
	prob	0.02		0.003			
Food Preparation							
Determines amount to be prepared	X^2	4.00					
	df	1					
	Prob	0.05					
Foodservice							
Checks plate waste	X^2				3.90		
	df				1		
	Prob				0.05		
Sanitation							
Checks refrigerator temperatures	X^2	4.10				13.22	
	df	1				3	
	Prob	0.04				0.004	

TABLE XII (Continued)

Functional Activities		Selected Demographic Variables: Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Therapeutics							
Calculates modified diets	X^2	5.11			4.31		
	df	1			1		
	Prob	0.02			0.04		
Confers with patients regarding modified diets	X^2		5.28				
	df		1				
	Prob		0.02				
Dietary Administration							
Develops department procedures	X^2	4.03					
	df	1					
	Prob	0.05					
Develops department policies	X^2		3.89				
	df		1				
	Prob		0.05				
Prepares job descriptions	X^2					9.64	
	df					3	
	Prob					0.02	
Sets overall standards for quality assurance	X^2	5.36			5.04		
	df	1			1		
	Prob	0.02			0.02		
Records and Reports							
a. Develops the following records, forms or reports							

TABLE XII (Continued)

Functional Activities		Selected Demographic Variables: Age	Degree	Length of ADA	R.D. Route	Employ. Status	Priority Plan
Dietary progress notes for patient medical record	X^2			4.57	7.30		
	df			1	1		
	Prob			0.03	0.01		
b. Maintains the following records, forms or reports:							
Summary of food costs	X^2			6.00			
	df			1			
	Prob			0.01			
Staffing costs	X^2						4.00
	df						1
	Prob						0.05
Equipment and Layout							
Makes regular preventive maintenance checks of all equipment	X^2						4.28
	df						1
	Prob						0.04

*Completed X^2 Tables are in Appendix F.

less than 20 years membership tended to perform activities only occasionally, whereas, those with more than 20 years membership performed the activities almost every visit (Tables LXI through LIII, Appendix G).

Differences were found between the frequency of performance of five functional activities and route to ADA registration. Those respondents registered under the Grandfather Clause tended to perform the activities under consideration, almost every visit to a facility. Those registered by the R.D. Exam do so only occasionally (Tables LXIV through LXVIII, Appendix G).

Differences were found between the frequency of performance of two functional activities and whether or not the consultant writes a plan of work when first entering a new facility. There is a tendency for consultants who write a plan of priorities to perform activities only occasionally. For the group who does not write a plan, frequency of performance was split between only occasionally and almost every visit. Prior planning probably allows the consultant to more readily delegate work to the foodservice supervisor (Tables LXII through LXXII, Appendix G).

Based on the twenty-one differences found between the frequency of performance by the consultant of functional activities and the selected demographic variables, the researcher, again, finds further evidence to decline acceptance of H_1. Differences found with regard to the variables highest degree attained and employment status, however, may be the result of differences in group size rather than the variable under consideration. In general, respondents who are younger, have shorter membership time in the ADA, are registered by R.D. Exam, and write a priority plan, have a tendency to perform the functional activities under consideration only occasionally rather than every visit. This probably

means a greater willingness on the part of these respondents to delegate authority to the foodservice supervisor.

H_2: There will be no differences in the educational needs and perceived importance of continuing education concerns of consultant dietitians based on the same variables as in H_1.

T-test and analysis of variance (ANOVA) were used to determine the effect of selected independent variables on continuing education needs through calculation of mean differences. Differences were considered to be significant at (P = .10) or less. Respondents selected very important, important, slightly important, or unimportant to axcribe value to 44 selected educational concerns grouped into five need categories. A value of 1-4 was assigned to each of the responses respectively: a value of one means very important, whereas, a value of 4 means unimportant.

Three differences were determined through use of the t-test procedure. A difference between the continuing education need, entrepreneurial (establishing a consulting service), and writing a plan or priorities when first entering a new facility (P = 0.01) was found. Respondents who do not write a plan view this need as slightly less important than do those respondents who do write a plan (Table XIII). A second difference was found between the continuing education need, organization and management and age (P = 0.03). The age 20-49 year old group tended to view this need as important whereas the 50 years and over age group tended to view it as only slightly important to unimportant (Table XIV). A third difference was found between the continuing education need, working as a professional and age (P = 0.01). The younger group tended to view this need slightly less than important toward slightly

important, whereas, the older group tended to view this need as slightly greater than important to very important (Table XV).

TABLE XIII

T-TEST PROCEDURE FOR CONTINUING EDUCATION NEED: ENTREPRENEURIAL (ESTABLISHING A CONSULTING SERVICE)

Variable	N	Mean	Std. Dev.	t	Observed Significance Level
Priority Plan:					
Yes	18	2.09	0.53	-2.81	0.01
No	19	2.56	0.52		

TABLE XIV

T-TEST PROCEDURE FOR CONTINUING EDUCATION NEED: ORGANIZATION AND MANAGEMENT

Variable	N	Mean	Std. Dev.	t	Observed Significance Level
Age:					
20-49	22	2.14	0.52	2.29	0.03
50 and over	20	1.82	0.37		

Two differences were determined by use of analysis of variance procedure. First, there was a difference between the continuing education need: entrepreneurial (establishing a consulting service) and

employment status (P = 0.07). The mean need level ranged from 1.86 to 2.33 with respondents who consult as a second job perceiving this at the highest need level, slightly greater than important. The employment groups, less than half time consultants, full time consultants, and half time or more but less than full time consultants, viewed this need as progressively less important (Tables XVI and XVII).

TABLE XV

T-TEST PROCEDURE FOR CONTINUING EDUCATION NEED: WORKING AS A PROFESSIONAL

Variable	N	Mean	Std. Dev.	t	Observed Significance Level
Age:					
20-49	21	2.29	0.42	2.79	0.01
50 and over	20	1.93	0.41		

A second difference was found between the continuing education need adapting to a facility and employment status (P = 0.06). Full time consultants viewed this need as most important, followed by respondents who consult as a second job, consultants who work half time or more but less than full time, and consultants who work less than half time respectively (Tables XVIII and XVIX).

Based on the five differences between the variables previously discussed, the researcher failed to accept H_2. Respondents who write a plan of priorities for work when entering a new facility tended to have

a greater need for continuing education with regard to entrepreneurial activities. younger respondents tended to perceive a higher need for continuing education in organization and management and working as a professional than did older respondents. Respondents who consult only as a second job, perceived entrepreneurial needs to be more important than any other employment category. This probably reflects less experience with regard to self employment for those who consult as a second job. Full time to part time consultants tended to perceive the need, adapting to a facility, as a more important need than those who work at consulting as a second job, probably because they are more frequently faced with the reality of this problem.

TABLE XVI

MEAN SCORES FOR CONTINUING EDUCATION NEED: ENTREPRENEURIAL (ESTABLISHING A CONSULTING SERVICE)

Employment Status	N	Mean Scores
Full time (35 hours per week or more)	4	2.33
Half time or more but less than full time	15	2.59
Less than half time	18	2.22
Other (consulting as a second job while employed as a full time dietitian)	4	1.86

TABLE XVII

ANALYSIS OF VARIANCE TABLE FOR CONTINUING EDUCATION NEED: ENTREPRENEURIAL (ESTABLISHING A CONSULTING SERVICE)

Employment Status	df	Sum of Squares	Mean Square	F Value	Observed Significance Level
Between Groups	3	2.15	0.72	2.56	0.07
Within Groups	37	10.36	0.28		
Corrected Total	40	12.51			

TABLE XVIII

MEAN SCORES FOR CONTINUING EDUCATION NEED: ADAPTING TO A FACILITY

Employment Status	N	Mean Scores
Full time (35 hours per week or more)	4	1.00
Half time or more but less than full time	16	1.30
Less than half time	18	1.50
Other (consulting as a second job while employed as a full time dietitian)	4	1.13

TABLE XVIX

ANALYSIS OF VARIANCE FOR CONTINUING EDUCATION NEED: ADAPTING TO A FACILITY

Employment Status	df	Sum of Squares	Mean Square	F Value	Observed Significance Level
Between Groups	3	1.14	0.38	2.70	0.06
Within Groups	38	5.34	0.14		
Corrected Total	41	6.48			

CHAPTER V

SUMMARY AND RECOMMENDATIONS

The purpose of this research was to determine the role functions of consultant dietitians in health care facilities in Oklahoma, and to assess their perceived continuing education needs. Specific objectives included:

1. Determine the functional responsibilities and frequency of activities performed by consultant dietitians in health care facilities.

2. Determine the educational needs and continuing education concerns of consultant dietitians in health care facilities.

3. Make recommendations for further research involving consultant dietitians in health care facilities.

A review of the literature revealed that, although the dietetic specialty of consultation is as old as the profession itself, research concerning consultant dietitians is very limited and has certainly not kept abreast of the need for information as this specialty has grown. The frequency of performance and perception of the importance of different role functions varies among studies. There does, however, seem to be a trend toward greater emphasis on nutritional assessment and concern for quality health care. The classical distinction between line and staff with the consultant in the advising role (staff function) seems to be uniformly supported throughout the literature. In recent years, there has been a tendency to assess the continuing education needs of dietetic practitioners directly, rather than inferring these

needs from role analysis alone. There also seems to be a growing awareness of the importance of cost/benefit documentation and the image and role of the consultant in the formulation of public policy. There was no research available to describe the role functions or continuing education needs of consultants in Okalhoma and hence, the impetus for this study.

The research design utilized in this study was a descriptive status survey. An eight page questionnaire covering 70 functional activities and 44 continuing education concerns plus additional demographic and opinionaire information were developed to obtain the data. The invited sample consisted of 73 Oklahoma consultants affiliated with The American and the Oklahoma Dietetic Association as a dietetic Practice Group. Of these, 55 responded to the survey. Thirteen of the respondents were eliminated since they were not actually consulting at the present time. The final sample consisted of the 42 remaining consultants. This constitutes a 70 percent response of the invited sample actually consulting at the time of the survey. Generalizations made in this study apply only to the sample group.

Characteristics of the Respondents

The consultant dietitians in Oklahoma are all female and fall primarily in the age range of 30-59 years (81 percent). Twenty-nine (81 percent) have baccalaureate degrees and 12 have advanced degrees. Thirty-six of the respondents have an average of 7.57 years experience in part time consultation and eight of the respondents have an average of 8.13 years experience in full time consultation. The length of membership in ADA ranged from 3 to 62 years. All 42 respondents are registered dietitians. Route to registration is divided evenly between

the Grandfather Clause and the R.D. Exam.

Characteristics of Professional Practice and the Consultants' Work Environment

The majority of the respondents are employed half time or more (40 percent) or less than half time (43 percent). Eighty-three percent of the consultants surveyed are in private practice with only two consultants in a group or partnership arrangement. Ninety-three percent use their private residence as a business base. Only two Oklahoma consultants use a computer to aid in their work. Nearly one half (43 percent) of the consultants surveyed have legal contracts with the facilities they serve. Forty-six percent have written agreements. The average fee charged per hour of consulting time is $15.47. This average falls within ADA guidelines based on an Oklahoma entry level salary of about $16,000 per year. This indicates respondents are not charging fees commensurate with their experience. A little over one half of the respondents write a plan of work priorities when first accepting a new facility.

The majority of the 280 accounts served by consultant dietitians in Oklahoma are intermediate care facilities (49 percent) followed by congregate nutrition sites (25 percent). Consultants also work in hospitals, skilled nursing facilities, mental retardation and psychiatric centers, community health and retirement centers, public cafeterias, and medical complexes, children's facilities, and the Public Health Department.

The typical respondent in Oklahoma has seven accounts and travels an average of 37 miles to each account. The number of accounts ranged from 1-23. Consultants with the higher number of accounts tend to

serve groups of congregate nutrition sites where time can be shared among accounts and combined in-service training for foodservice employees is possible. The majority of consultants spend eight hours per month in the facilities they serve, both when first taking the account (N = 25), and after one year (N = 31). They spend an average of 6.71 hours per month on work done away from the facilities they serve.

Functional Analysis

Based on frequency and percentage data concerning functional activities, therapeutics, and education and training are the two primary responsibilities assumed by the consultant. Shared areas of responsibilities between the consultant and the foodservice supervisor include menu planning, foodservice, sanitation, and dietary administration. Food purchasing, food preparation, and maintaining records and reports are responsibilities performed primarily by the foodservice supervisor. Developing records and reports and equipment and layout are not performed by either the consultant or the foodservice supervisor.

The functional area perceived to consume the greatest amount of consultant time is education and training, followed by menu planning, therapeutics, and records and reports, equally weighed as second choices, and foodservice as the third choice. Consultants perceived education and training to be the most important functional area for quality assurance. Foodservice was the second most important followed by therapeutics. The perceived rankings for quality assurance seemed to be more widespread than the time perceptions probably because quality assurance involves a higher degree of value judgement.

Ninety-three percent of the consultants tended to perceive their

responsibilities as advice and counsel rather than direct supervision. However, the data collected in this study, shows a high number of areas of responsibility, jointly shared by the consultant and the foodservice supervisor. This may indicate more direct supervision in actual practice, than consultants perceive to be so.

Perceived Continuing Education Needs

Adapting to the facility clearly emerged as the highest continuing education need in this study. This area has not been dealt with in previous research. Quality assurance, and organization and management, which were the second and third most important areas of need, were also found to be high level needs in two previous studies (Brenner, 1971, Smith, 1975).

Consultants spend an average of 3.09 hours per week reading professional literature which is a higher amount of time spent in this type of continuing education activity than has been reported for other types of dietitians (Holli, 1982). This is probably due to the pressing need to keep up with current research findings and the lack of opportunity that the consultant in private practice has to consult with other professionals.

Testing the Hypotheses

Chi square values were determined for the relationship between 70 functional activities and age, degree, length of ADA membership, route to registration, employment status, and the existence of a plan of work priorities. Thirty-three differences ($P \geq 0.05$) were found. Respondents over 50 years of age and those with baccalaureate degrees, tended

to perform more activities jointly with the foodservice supervisor. The same is true for those registered under the Grandfather Clause, those employed half time or more, but less than full time, and those who are employed less than half time. Respondents who have been members of the ADA for less than twenty years and those who write a plan of work priorities also tended to do the same. Respondents 49 years of age and younger, and those who are registered by the R.D. Exam tended to either perform activities alone or not at all. Respondents who have been members of the ADA for more than twenty years tended to delegate more activities to the foodservice supervisor. Differences with regard to degree attained and employment ststus, may, however, be due to differences in group size rather than the variables under consideration.

Chi square values were also determined for relationships between frequency of performance of functional activities by the consultant and the six previously discussed demographic variables. Twenty-one differences ($P \geq 0.05$) were found. In general, respondents who are younger and have been members of ADA for a shorter period tended to perform the activities under consideration only occasionally rather than every visit. The same is true for respondents who have taken the R.D. Exam, and who write a plan of work priorities. This probably means a greater willingness on the part of these respondents to delegate authority to the foodservice supervisor.

T-test and analysis of variance (ANOVA) were used to determine the effect of selected independent variables on continuing education needs through calculation of mean differences. Five differences ($P \geq 0.01$) were found. Respondents who write a plan of work priorities when entering a new facility tended to have a greater need for entrepreneurial

activities. Younger respondents tended to have a higher need for organization and management activities. Respondents, who consult only as a second job, perceived entrepreneurial needs to be more important than any other employment category. This probably reflects less experience with regard to self employment. Full time to part time consultants tended to perceive activities involving adapting to a facility as a more important need than those who work at consulting as a second job. This is probably because respondents who spend more time in consulting are challenged by this problem more frequently than those who spend less time consulting.

Recommendations

An expanded study of the role functions and continuing education needs of consultant dietitians in health care facilities is needed nationwide. However, to ensure completion of questionnaires and accuracy of data, it is recommended that future studies be divided into two parts: role functions, and continuing education needs. If conducted on a national basis, it might be necessary to eliminate or reduce the number of open ended questions in order to facilitate data handling. The researcher feels, however, that some of the most valuable information collected in this study, in helping to understand the roles and the needs of the consultant came from this type of question. The researcher also recommends that less emphasis be placed on hypotheses testing and more emphasis on descriptive status wherein the most important findings of this study lie. More specific instructions should be given to avoid ranges in numerical answers. The section of the questionnaire regarding consultant accounts (Appendix A) should include more detailed

instructions, especially with regard to the handling of congregate nutrition sites. Communication techniques, new product development and visual aides for indications of malnutrition should be added to the 44 continuing education concerns surveyed in this study.

The researcher recommends that the academic preparative of the dietetic practitioner include awareness of the diversified roles and work environments of the contemporary dietitian as outlined by the ADA Council on Practice. The trend toward independent practice, as in consulting, needs special attention. There should also be greater integration of training with other health care professionals with emphasis on the total, not just nutritional, care of the client.

There is also a need for more communication and sharing of ideas among practicing consultants, and for role and image clarification within the dietetic profession, the general health care profession, and by the public at large. The researcher recommends that seminars, workshops, and university courses be developed with the particular needs of the consultants in mind. These needs should be designed with built-in sharing and reflection time among the consultants themselves. In addition, consultants need the latest research findings, practice methods, and technology to enhance performance in diversified role functions. The continuing education need, adapting to the facility, clearly emerged as the highest level need. This need, which includes evaluation of a prospective supervisor, working with the administrator, working with the foodservice supervisor, and state and federal regulations, has not been surveyed in previous study. A special emphasis should be placed on helping the administrator understand the role of the consultant and working with the foodservice supervisor since these two individuals are keys to

effective consultation. This need should be given top priority. Quality assurance and organization and management should also be addressed.

The researcher also recommends that consultants review their fee charges and considering raising them to a level commensurate with their level of experience including compensation for time spent in work done away from facilities served. There also seems to be a need for more peer review to assess and monitor the qualifications of practicing consultants to make sure that they are providing the services professionally required by the ADA and legally required by the state and federal government.

The ADA and the ODA should continue to increase their involvement in setting and monitoring state and federal regulations and nutritional public policy making. There is also a need for improving the professional image of the consultant dietitian in health care facilities within the dietetic profession itself, among other health care professionals and the general public. Suggestions for doing so include effective use of media such as magazines, newspapers, radio, and television to explain the functions and importance of the consultant in quality health care. Consultants should be reminded that this can be done on an individual basis as well as on an organizational basis.

There is also a high concern with regard to adequacy of time spent within facilities. There is a need for research to determine the amount of time and other factors necessary to assure quality care and proper nutritional assessment within different types of facilities based on bed or participant census. The data in this study indicate that the majority of consultants sampled are only being employed for the eight hour minimum required by law. There is also evidence that they are

spending a great deal of time on their own, without pay, in order to achieve the level of care they feel professionally they must provide. There is a need for cost/benefit documentation, being able to show the administrator, legislators, and the public, proof of the benefit of service rendered. Consultants need to become generally aware of the applications of programmable calculators and minicomputers, which are already being used within the profession, to relieve time strains in assessment. The consultant also needs to be, even more willing, to delegate authority to qualified and well trained foodservice supervisors to alleviate time burdens.

The consultant of the future is likely to become even more globally involved in consulting to a variety of health care facilities. They must become even more image conscious, politically astute, and technologically adept, with a higher involvement in and responsibility for continuing education, nutritional assessment, education and training of personnel, cost/benefit documentation, and generally improved quality health care.

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APPENDICES

APPENDIX A

RESEARCH INSTRUMENT

OKLAHOMA CONSULTANT DIETITIAN-HCF SURVEY

I. General Information

Directions: Please check or fill in the appropriate answers. It is important that you answer all the questions.

1. Age group: _____(1) 20-29 _____(3) 40-49 _____(5) 60-69
   _____(2) 30-39 _____(4) 50-59 _____(6) 70 or over

2. Degree(s) attained: Major emphasis:
   _____(1) B.S. (1)_____
   _____(2) M.S. (2)_____
   _____(3) Ph.D. (3)_____

3. Length of ADA membership in years:_____

4. Registration Status (R.D.): _____(1) Registered _____(2) Nonregistered

5. Route to registration: _____(1) Grandfather clause _____(2) R.D. exam

6. Professional affiliations:
   _____(1) ADA Practice Group, CD-HCF
   _____(2) American Society of Hospital Food Service Administrators
   _____(3) Other, please specify?
   _____

7. Average number of hours per week spent reading professional literature: _____

8. Total number of years of experience in the following areas:

	Full Time	Part Time
(1) As a consultant	_____	_____
(2) Other dietetic practice	_____	_____

9. Present employment status:
   _____(1) Full time (35 hours per week or more)
   _____(2) Half time or more but less than full time
   _____(3) Less than half time

10. Work arrangement: _____(1) Independent practice _____(2) Partnership or group
    _____(3) Other specify_____

11. Business base location: _____(1) Private residence _____(2) Separate business office

12. Check all the activities which you perform before accepting a new account:
    _____(1) Review the complete facility
    _____(2) Review only the dietary department
    _____(3) Observe the foodservice
    _____(4) Become acquainted with the foodservice personnel
    _____(5) Evaluate the foodservice
    _____(6) Talk with the administrator concerning problem areas
    _____(7) Talk with the foodservice supervisor concerning problem areas
    _____(8) Talk with the director of nurses concerning problem areas
    _____(9) Check mileage from business base location
    ____(10) Other, specify_____

13. Check the type of agreement you have with the facilities which you serve:

_____(1) Legal contract _____(3) Verbal agreements _____(5) Other, specify_____

_____(2) Written agreements _____(4) Have no agreement _____

14. When first entering a facility do you write a plan of work which establishes your priorities for service?

_____(1) Yes _____(2) No

15. When first taking a new account, how many hours per month, on the average, do you spend at a facility?_____

16. After having an account for one year or more, how many hours per month, on the average, do you spend at a facility?_____

17. Do you ever do any of your work for a facility away from the facilities you serve? _____(1) Yes _____(2) No

18. If yes above, indicate the hours per month:_____and types of work (reports, menus, etc.):

_____

_____

19. Do you use a computer to aid in your consulting work? _____(1) Yes _____(2) No

20. What is your consulting fee per hour?_____

21. Do you have plans to raise your fee within the next year? _____(1) Yes _____(2) No

22. If yes, indicate the projected hourly fee_____

23. Do you carry malpractice insurance? _____(1)Yes _____(2) No

24. Do you carry disability insurance? _____(1) Yes _____(2) No

25. Please complete the following chart by filling in the requested information concerning your consulting accounts. See facility code description (below left*). If you have more than eight accounts, please attach an additional page, number each account consecutively, and give requested information.

*Use the following codes to indicate type of facility:

A. Intermediate Care
B. Skilled Care Nursing
C. Residential Care
D. Mental Retardation Center
E. Community Mental Health Center
F. Hospital
G. Congregate Nutrition Sites
H. Other, please specify

_____

	Account	*Facility Code	Distance from your business base	Number of beds and/or participants	Hours per month at facility	Length of time employed by facility (yrs.)
(1)						
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						

26. Are you interested in obtaining additional accounts? _____(1) Yes _____(2) No

27. If yes, estimate the number of additional accounts which you feel you could handle?_____

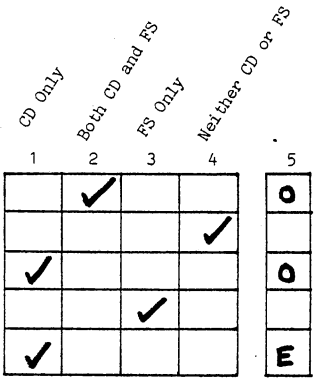
II. Role Functions

This section lists the functions and activities which may be performed by the consultant dietitian (CD) and/or foodservice supervisor (FS) in health care facilities. Answer each question as an overview of all the accounts which you presently serve.

Direction 1: Read each activity and check the appropriate column (1-4) which best describes who performs the activity.

Direction 2: If you have checked column 1 or 2, please complete column 5, using the following symbols to indicate the frequency with which you, the consulting dietitian, perform the activity.

E = Almost every visit or at home or office prior to visit
O = Only occasionally



1. Menu Planning
   - (1) Plans and writes resident menus
   - (2) Plans and writes personnel menus
   - (3) Makes menu changes
   - (4) Files menus

2. Food Purchasing
   - (1) Determines the food items
   - (2) Writes food specifications
   - (3) Places orders
   - (4) Confers with salespersons
   - (5) Inspects the quantity and quality of deliveries

3. Food Preparation
   - (1) Standardizes recipes
   - (2) Modifies recipes for energy savings
   - (3) Determines amount to be prepared
   - (4) Prepares menu items
   - (5) Tests menu items for taste and appearance
   - (6) Assigns work to employees

Don't forget to indicate the frequency in column 5.

Frequency symbols for column 5:

E = Almost every visit or at home or office prior to visit
O = Only occasionally

	CD Only	Both CD and FS	FS Only	Neither CD or FS	4
	1	2	3	4	5
4. Foodservice					
(1) Supervises the dishing-up of menu items					
(2) Maintains portion control					
(3) Supervises service and distribution of meals					
(4) Checks plate waste					
5. Sanitation					
(1) Establishes sanitation standards					
(2) Checks dishwashing temperatures					
(3) Checks refrigerator temperatures					
(4) Establishes cleaning schedules and procedures					
(5) Maintains standards					
(6) Assigns cleaning tasks					
6. Therapeutics					
(1) Assesses nutritional status of residents					
(2) Calculates modified diets					
(3) Plans menus for modified diets					
(4) Confers with patients regarding modified diets					
(5) Adjusts modified diets					
(6) Assesses drug-nutrient interrelationships					
(7) Discusses diets with physicians					
7. Dietary Administration					
(1) Develops department organization					
(2) Develops department procedures					
(3) Develops department policies					
(4) Prepares job descriptions					
(5) Initially interviews department personnel					
(6) Hires department personnel					
(7) Periodically evaluates personnel					
(8) Conducts exit interviews with personnel					
(9) Communicates with other departments					
(10) Sets overall standards for quality assurance					

Don't forget to indicate the frequency in column 5.

Frequency symbols for column 5:

E = Almost every visit or at home or office prior to visit
O = Only occasionally

	CD Only	Both CD and FS	FS Only	Neither CD or FS	5
	1	2	3	4	5
8. Records and Reports					
a. Develops the following records, forms or reports:					
(1) Census records					
(2) Summary of food costs					
(3) Staffing costs					
(4) Inventories					
(5) Budgets					
(6) Dietary progress notes for patient medical record					
(7) Summary of consultant visitation accomplishments					
(8) Cost/benefit changes suggested or implemented					
b. Maintains the following records, forms or reports:					
(1) Census records					
(2) Summary of food costs					
(3) Staffing costs					
(4) Inventories					
(5) Budgets					
(6) Dietary progress notes for patient medical record					
(7) Summary of consultant visitation accomplishments					
(8) Cost/benefit changes suggested or implemented					
9. Equipment and Layout					
(1) Within existing limitations, plans for use of space and equipment for maximum efficiency					
(2) Keeps records of power load and gas requirements for each piece of equipment used in the facility					
(3) Makes regular preventive maintenance checks of all equipment					
(4) Sets energy conservation goals for equipment use					
(5) Writes specifications for purchase of new equipment					
(6) In remodeling or new construction, works with architect and others to interpret kitchen needs					
(7) Assumes responsibility for layout and equipment of remodeled or new dietary facility					
10. Education and Training					
(1) Conducts orientation for new employees					
(2) Conducts in-service training for foodservice employees					
(3) Conducts in-service education in energy conservation					
(4) Conducts nutrition education for patients and their families					
(5) Conducts nutrition education for professionals					

Don't forget to indicate the frequency in column 5.

Directions: Using the functional codes below, fill in the appropriate letters. 6

A. Menu Planning	E. Sanitation	I. Equipment and Layout
B. Food Purchasing	F. Therapeutics	J. Education
C. Food Preparation	G. Dietary Administration	
D. Foodservice	H. Records and Reports	

1. Rank in order the three functions which consume the greatest amount of your time.

   (1)_____ (2)_____ (3)_____

2. Rank in order of importance the three functions which you believe most important for quality assurance.

   (1)_____ (2)_____ (3)_____

Directions: Please check or fill in the appropriate answers. It is important that you answer all the questions.

1. Do you see your responsibilities primarily as providing advice and counsel to the dietary departments or as directly supervising the operations in the facilities you serve?

   _____(1) Advice and counsel
   _____(2) Direct supervision
   _____(3) (1) and (2)
   _____(4) Other, please specify_____

2. Do you believe that the time you spend in the facilities you serve is adequate to accomplish all that needs to be accomplished? _____(1) Yes _____(2) No

   If no, why not?_____

   _____

3. What is the minimum number years of experience that you would recommend before beginning a career as a consultant?_____

4. Check the description that best expresses your attitude toward consulting as a career choice.

   _____(1) Highly satisfying _____(2) Moderately satisfying _____(3) Not satisfying

   Explain your answer_____

   _____

5. Please indicate how well your education and training has prepared you to perform as a consultant dietitian.

   _____(1) Very inadequate
   _____(2) Somewhat inadequate, needs to be improved
   _____(3) Adequate, needs little improvement
   _____(4) Completely adequate

   If your above answer was (1) or (2), please make suggestions for improvement._____

   _____

6. What are some of the concerns of consultants that should be addressed by:

   ADA?_____

   _____

   ODA?_____

   _____

7

III. Continuing Education Needs

Below is a list of possible continuing education concerns and responsibilities of consulting dietitians to health care facilities. Check the term that best describes your opinion of the importance of each sub-topic as a continuing education need.

	Very Important	Important	Slightly Important	Unimportant
1. Entrepreneurial (establishing a consulting service):				
(1) Small business management	○	○	○	○
(2) Incorporation	○	○	○	○
(3) Forming partnerships	○	○	○	○
(4) Insurance	○	○	○	○
(5) Record keeping systems	○	○	○	○
(6) Establishing a credit line	○	○	○	○
(7) Business logos, letterheads, and other symbols	○	○	○	○
(8) Writing and securing contracts	○	○	○	○
(9) Setting and collecting fees	○	○	○	○
2. Adapting to a facility:				
(1) Evaluation of a prospective facility	○	○	○	○
(2) Working with the administrator	○	○	○	○
(3) Working with the food service supervisor	○	○	○	○
(4) State and federal regulations	○	○	○	○
3. Organization and management:				
(1) Developing and writing policies & procedures	○	○	○	○
(2) Staff development and in-service education	○	○	○	○
(3) Personnel management	○	○	○	○
(4) Working with unions	○	○	○	○
(5) Zero base budgeting	○	○	○	○
(6) Cost control	○	○	○	○
(7) Cost/benefit documentation	○	○	○	○
(8) Computer methods and applications	○	○	○	○
(9) Equipment layout and design engineering	○	○	○	○
(10) Developing energy conservation policies & procedures	○	○	○	○

	Very Important	Important	Slightly Important	Unimportant
4. Working as a professional:				
(1) Professional dress and tools of the trade	○	○	○	○
(2) Professional conduct and ethics	○	○	○	○
(3) Time and stress management	○	○	○	○
(4) Interviewing techniques	○	○	○	○
(5) Media relationships (newspapers, radio, television)	○	○	○	○
(6) Writing for professional journals	○	○	○	○
(7) Writing for the public (newspapers & magazines)	○	○	○	○
(8) Interpretation and application of new research	○	○	○	○
5. Quality assurance and nutritional care:				
(1) Overall standards for quality assurance	○	○	○	○
(2) Third party reimbursement	○	○	○	○
(3) Patient rights standards	○	○	○	○
(4) Nutritional assessment	○	○	○	○
(5) Socio-cultural influences and food behavior	○	○	○	○
(6) Charting and documentation	○	○	○	○
(7) Patient care plans and audits	○	○	○	○
(8) Behavior modification	○	○	○	○
(9) Medical history-high risk conditions	○	○	○	○
(10) Food-drug interrelationships	○	○	○	○
(11) Nutritional implications of chronic disorders	○	○	○	○
(12) Gerontology/study of aging	○	○	○	○
(13) Principles of sanitation and food safety including techniques for inspection	○	○	○	○

6. Please list other educational needs which you feel should be included:

_____

_____

_____

Thank you for your participation!

Judith Faye
Department of Food Nutrition and Institution Administration
Oklahoma State University
425 Home Economics West
Stillwater, OK 74078

Please refold the questionnaire, staple together and mail. Postage has been provided for your convenience. Thank you for your participation.

APPENDIX B

CORRESPONDENCE

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

February 11, 1982

Ms. Kay Romero, R.D.
President Consultants' Practice Group
5779 S. 80th E. Avenue
Tulsa, OK 73145

Dear Ms. Romero:

I am a graduate teaching assistant at Oklahoma State University currently writing my research proposal under the direction of Dr. Lea L. Ebro. We are interested in doing a functional analysis and continuing education needs assessment of consultant dietitians in Oklahoma and request your assistance in providing us a list of current names and addresses of your group. I understand there are approximately eighty-three consultants at the present time.

The research instruments will be mailed questionnaires, and individual professionals and institutions will not be identified in the report. Studies regarding activities and responsibilities of consultants in nursing homes in New York State and the midwest states have been reported but no study has been conducted in the state of Oklahoma and information is limited nationwide.

It is our intention to make information gained from this study available to participating consultants and the profession at large. We hope to gain insight and direction for development of future educational programs which will benefit practicing consultants.

We solicit your assistance in adding to the meager resource of knowledge concerning consultants. Your cooperation is very much appreciated.

Sincerely,

Judith Faye

Judith Faye
FNIA Graduate Teaching Assistant

cc: Dr. L. Ebro

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

February 11, 1982

Dr. Marian C. Spears, Ph.D., R.D.
Professor and head
Department of Dietetics, Restaurant and
Institutional Management
Kansas State University
Manhattan, Kansas 66506

Dear Dr. Spears:

I am a graduate assistant at Oklahoma State University currently writing my research proposal under the direction of Dr. Lea L. Ebro. My subject concerns a functional analysis and continuing education needs assessment of dietitians in consultation and private practice in Oklahoma. I have tried to obtain a copy of Diane Spears' 1979 thesis, The Consultant Dietition in Nursing Homes through the Interlibrary Loan System. Unfortunately, my request was not filled since this thesis seems to be missing from the Kansas State Library.

I feel it is very important that I review this thesis before completing my proposal. If you have a departmental copy, I would appreciate your mailing it to me on loan in care of Dr. Ebro, or if this is not possible, having a Xerox copy made for me. I will be happy to cover all mailing and/or copying charges.

If a copy of this thesis is not available in the department, how might I contact Diane Spears directly? Any help you can extend to me in obtaining this information will be greatly appreciated.

Sincerely,

Judith Faye

Judith Faye
FNIA Graduate Teaching Assistant

cc: Dr. L. Ebro

Enclosure: 1

KSU
KANSAS STATE UNIVERSITY

Department of Dietetics, Restaurant and Institutional Management

Justin Hall
Manhattan, Kansas 66506
913-532-5521

February 19, 1982

Ms. Judith Faye
Graduate Teaching Assistant
Dept. of Food, Nutrition &
Institution Administration
Oklahoma State University
Stillwater, Oklahoma 74078

Dear Ms. Faye:

I am enclosing a paper bound copy of Diane Spears' thesis which you requested. Please return it as soon as possible. You might want to xerox a copy for your files.

Also, I have included some questionnaires which you might find helpful. You may keep these.

Good luck on your research.

Sincerely,

Marian C. Spears

Marian C. Spears, Ph.D., R.D.
Head, Dietetics, Restaurant,
& Institutional Management

fj

enclosures

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

February 26, 1982

Dr. Marian C. Spears, Ph.D., R.D.
Professor and Head
Department of Dietetics, Restaurant,
& Institutional Management
Justin Hall 105
Kansas State University
Manhattan, Kansas 66506

Dear Dr. Spears:

I am returning the copy of Diane Spears' thesis. I took your advice and made a Xerox copy. I am finding the thesis and the bibliography most helpful. Thank you.

I can't tell you how much I appreciate your additional enclosure of the questionnaires. I believe, they will greatly speed the process of constructing my own questionnaire.

Sincerely,

Judith Faye

Judith Faye
Graduate Teaching Assistant

Enclosure: 1

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

May 21, 1982

Ms. Kay Romero, R.D.
President Consultants' Practice Group
5779 S. 80th E. Avenue
Tulsa, OK 73145

Dear Kay:

Here, at last, is a proof copy of my questionnaire. Please read through the first time answering questions and keeping track of the total time it takes you from start to completion. Pretend that you are a participant rather than an evaluator.

Then go back through the questionnaire and carefully examine it for content, clarity and format. Please make suggestions for additions, deletions or rewording. Look for terms or questions which could be easily misinterpreted or that you had difficulty answering. How could these be improved? Do the questions flow in a logical order? In question 16 of Section I, have I left enough spaces for accounts or should there be more? Please feel free to mark or write anywhere on the questionnaire copy. If you have any questions, please call me collect at (405) 377-1611. You might be interested to know that Phyllis Nichols is also reviewing this questionnaire if you wish to compare notes.

My preliminary plans are to print the final copy of the questionnaire on a buff or beige paper, front and back, in a booklet form. The last page is designed so that it can be folded and stapled for ease in return mailing. My projected mailing date to participants is mid June.

I will anxiously look forward to the return of your comments. Thank you for your time and professional concern. Enclosed is a self-addressed, stamped envelope for your convenience.

Sincerely,

Judith Faye

Judith Faye
FNIA Graduate Teaching Assistant

cc: Dr. L. Ebro

Enclosures: 2

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

May 21, 1982

Ms. Phyllis Nichols, R.D.
605 Garden Lane
McAlester, OK 74501

Dear Phyllis:

Here, at last, is a proof copy of my questionnaire. Please read through the first time answering questions and keeping track of the total time it takes you from start to completion. Pretend that you are a participant rather than an evaluator.

Then go back through the questionnaire and carefully examine it for content, clarity and format. Please make suggestions for additions, deletions, or rewording. Look for terms or questions which could be easily misinterpreted or that you had difficulty answering. How could these be improved? Do the questions flow in a logical order? In question 16 of Section I, have I left enough spaces for accounts or should there be more? Please feel free to mark or write anywhere on the questionnaire copy. If you have any questions, please call me collect at (405) 377-1611. You might be interested to know that Kay Romero is also reviewing this questionnaire if you wish to compare notes.

My preliminary plans are to print the final copy of the questionnaire on a buff or beige paper, front and back , in booklet form. The last page is designed so that it can be folded and stapled for ease in return mailing. My projected mailing date to participants is mid June.

I will anxiously look forward to the return of your comments. Thank you for your time and professional concern. Enclosed is a self-addressed, stamped envelope for your convenience.

Sincerely,

Judith Faye

Judith Faye
Graduate Teaching Assistant

cc: Dr. L. Ebro

Enclosures: 2

Oklahoma State University

Department of Food, Nutrition and Institution Administration

STILLWATER, OKLAHOMA 74078
(405) 624-5039

June 24, 1982

Dear Consultant Dietitian:

We are conducting a "Functional Analysis and Continuing Education Needs Assessment of Consultant Dietitians in Health Care Facilities in Oklahoma" and request your participation in this study. Research regarding activities and responsibilities of consultants in nursing homes has been conducted in New York State and the north central region states. Research concerned with forecasting the educational needs of consultants has been conducted in Ohio and Tennessee. However, no studies, on either of these subjects, have been conducted in the state of Oklahoma and information is limited nationwide. You are one of 76 persons invited to participate in this study.

It is hoped that this research will provide valuable information to professional organizations, health care institutions, educational institutions, the foodservice industry, and individual consultants like yourself. It is our intention to make this information available to participating consultants and the profession at large. The information you supply will be held in strict confidence. At no time will you or the facilities you serve be identified in the research results. The code number on your questionnaire is merely to assist the researcher in tabulating data and with follow-up responses.

For our purposes here at Oklahoma State University, we hope to use the information to plan and develop continuing education opportunities especially adapted to your needs as a consultant. It will also aid us in the preparation of students who show an interest in consulting as a career option.

Please take time from your busy schedule to check the responses and fill in the requested information in the attached questionnaire. Please return the questionnaire on or before July 8th. Thank you for your professional concern and participation.

Sincerely yours,

Judith Faye

Judith Faye
Graduate Teaching Assistant

Lea L Ebro

Lea L. Ebro, Ph.D, R.D.
Major Advisor

P.S. If you have any questions, call (405) 377-1611 collect and ask for Judy Faye.

Kay R. Romero
5779 South 80th East Avenue
Tulsa, Oklahoma 74145

Dear Consultant:

Please find enclosed a questionnaire that Judith Faye, a master's degree candidate at Oklahoma State University has developed. Phyllis Nichols and I have participated in reviewing the questionnaire. We would very much appreciate your answering it and returning it to Judith. The results will not only help Oklahoma State University develop continuing education for consultants, but also the Oklahoma Consultants in Health Care Facilities Practice Group will use the results to develop activities that we hope will be of interest and value to you.

Thank you for your help in answering and returning these questions.

Sincerely,

Kay

Kay Romero
President Oklahoma
Consultants Practice Group

July 13, 1982

Dear _____*

I have greatly appreciated the fine and timely response of the Oklahoma Consultants Practice Group to the enclosed survey. However, the study will not be as beneficial to you or to the members of your practice group without your input. I believe, you will find the compiled information extremely valuable in your own practice. I appreciate your taking time from your busy schedule to return the survey. I am eagerly looking forward to your response. Thanks very much for your help.

Sincerely,

Judy Faye

Judy Faye

P.S. If you have any questions, please call me collect (405) 377-1611.

*Text of a handwritten note enclosed with second questionnaire mailing. Blank was filled in with the individual consultant's name.

APPENDIX C

STATISTICAL ANALYSIS SYSTEM SUMMARY

OF INDIVIDUAL CONSULTANT ACCOUNTS

SUMMARY OF INDIVIDUAL CONSULTANT ACCOUNTS

STATISTICAL ANALYSIS SYSTEM

ID=1

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	1	50.00000000	.	50.00000000	50.00000000	.	50.00000000	.	.
BEDS	1	95.00000000	.	95.00000000	95.00000000	.	95.00000000	.	.
HRS	1	6.00000000	.	6.00000000	6.00000000	.	6.00000000	.	.
YRS	1	1.00000000	.	1.00000000	1.00000000	.	1.00000000	.	.
ID=2									
DIST	8	30.75000000	12.20948109	4.00000000	45.00000000	4.31670344	246.00000000	149.0714286	39.706
BEDS	8	79.50000000	51.38927070	45.00000000	200.00000000	18.16885090	636.00000000	2640.8571429	64.641
HRS	8	12.00000000	11.31370850	8.00000000	40.00000000	4.00000000	96.00000000	128.0000000	94.281
YRS	8	7.75000000	1.48804762	5.00000000	9.00000000	0.52610428	62.00000000	2.2142857	19.201
ID=11									
DIST	2	60.00000000	0	60.00000000	60.00000000	0	120.00000000	0	0.000
BEDS	2	50.00000000	0	50.00000000	50.00000000	0	100.00000000	0	0.000
HRS	2	8.00000000	0	8.00000000	8.00000000	0	16.00000000	0	0.000
YRS	2	6.00000000	0	6.00000000	6.00000000	0	12.00000000	0	0.000
ID=12									
DIST	23	38.04347826	23.90412338	0.00000000	80.00000000	4.98435428	875.0000000	571.4071146	62.834
BEDS	23	81.86956522	49.27225325	25.00000000	225.00000000	10.27397502	1883.0000000	2427.7549407	60.184
HRS	23	6.65217391	2.72377905	4.00000000	16.00000000	0.56794719	153.0000000	7.4189723	40.946
YRS	23	7.00000000	3.43775825	3.00000000	16.00000000	0.71682215	161.0000000	11.8181818	49.111
ID=13									
DIST	8	26.00000000	23.05893071	1.00000000	65.00000000	8.15256314	208.00000000	531.71428571	88.688
BEDS	8	76.87500000	28.90100097	35.00000000	120.00000000	10.21804688	615.00000000	835.26785714	37.595
HRS	8	6.75000000	2.31455025	3.00000000	8.00000000	0.81831709	54.00000000	5.35714286	34.290
YRS	8	4.37500000	2.19983766	1.00000000	6.00000000	0.77776006	35.00000000	4.83928571	50.282
ID=14									
DIST	1	15.00000000	.	15.00000000	15.00000000	.	15.00000000	.	.
BEDS	1	150.00000000	.	150.00000000	150.00000000	.	150.00000000	.	.
HRS	1	8.00000000	.	8.00000000	8.00000000	.	8.00000000	.	.
YRS	1	1.00000000	.	1.00000000	1.00000000	.	1.00000000	.	.
ID=15									
DIST	10	64.50000000	19.35774321	25.00000000	85.00000000	6.12145589	645.00000000	374.7222222	30.012
BEDS	10	67.50000000	36.53385036	20.00000000	125.00000000	11.55301788	675.00000000	1334.7222222	54.124
HRS	10	11.20000000	7.72873426	8.00000000	32.00000000	2.44404037	112.00000000	59.7333333	69.007
YRS	10	2.80000000	1.54919334	1.00000000	6.00000000	0.48989795	28.00000000	2.4000000	55.328
ID=16									
DIST	9	36.77777778	21.78748366	3.00000000	64.00000000	7.26249455	331.00000000	474.6944444	59.241
BEDS	9	72.33333333	37.57658846	32.00000000	120.00000000	12.52552949	651.00000000	1412.0000000	51.949
HRS	9	9.33333333	2.64575131	8.00000000	16.00000000	0.88191710	84.00000000	7.0000000	28.347
YRS	9	4.44444444	3.71184291	1.00000000	10.00000000	1.23728097	40.00000000	13.7777778	83.516

SUMMARY OF INDIVIDUAL CONSULTANT ACCOUNTS (CONTINUED)

STATISTICAL ANALYSIS SYSTEM

ID=17

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	17	11.82352941	6.95732792	1.00000000	35.00000000	1.68739988	201.0000000	48.40441176	58.843
BEDS	17	96.17647059	12.62554600	75.00000000	130.00000000	3.06214469	1635.0000000	159.40441176	13.127
HRS	17	4.47058824	1.94028500	4.00000000	12.00000000	0.47058824	76.0000000	3.76470588	43.401
YRS	17	4.00000000	0.35355339	3.00000000	5.00000000	0.08574929	68.0000000	0.12500000	8.839

ID=20

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	8	31.87500000	11.93359603	15.00000000	45.00000000	4.21916334	255.00000000	142.41071429	37.439
BEDS	8	80.25000000	23.34064511	50.00000000	105.00000000	8.25216422	642.00000000	544.78571429	29.085
HRS	8	13.00000000	8.48528137	8.00000000	32.00000000	3.00000000	104.00000000	72.00000000	65.271
YRS	8	5.75000000	3.57571172	2.00000000	10.00000000	1.26420500	46.00000000	12.78571429	62.186

ID=21

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	6	43.83333333	30.53140460	0.00000000	95.00000000	12.46439373	263.00000000	932.1666667	69.653
BEDS	6	87.00000000	33.28663395	40.00000000	115.00000000	13.58921141	522.00000000	1108.0000000	38.260
HRS	6	8.33333333	0.81649658	8.00000000	10.00000000	0.33333333	50.00000000	0.6666667	9.798
YRS	6	7.16666667	2.71416040	4.00000000	11.00000000	1.10805134	43.00000000	7.3666667	37.872

ID=23

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	14	32.78571429	17.47604326	0.00000000	60.00000000	4.67066902	459.00000000	305.41208791	53.304
BEDS	14	60.92857143	28.91755997	15.00000000	113.00000000	7.72854299	853.00000000	836.22527473	47.461
HRS	14	9.57142857	6.47734853	6.00000000	32.00000000	1.73114421	134.00000000	41.95604396	67.674
YRS	14	5.50000000	1.22474487	3.00000000	7.00000000	0.32732684	77.00000000	1.50000000	22.268

ID=24

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	6	36.33333333	22.10580618	8.00000000	60.00000000	9.02465758	218.00000000	488.6666667	60.842
BEDS	6	93.83333333	47.49912280	50.00000000	150.00000000	19.39143568	563.00000000	2256.1666667	50.621
HRS	6	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	48.00000000	0.0000000	0.000
YRS	6	5.16666667	2.22860195	1.00000000	7.00000000	0.90982294	31.00000000	4.9666667	43.134

ID=25

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	7	85.28571429	43.05699434	20.00000000	140.00000000	16.27401418	597.00000000	1853.9047619	50.486
BEDS	7	70.00000000	15.40562668	54.00000000	100.00000000	5.82277957	490.00000000	237.3333333	22.008
HRS	7	10.85714286	3.02371578	8.00000000	16.00000000	1.14285714	76.00000000	9.1428571	27.850
YRS	7	4.28571429	4.30945804	1.00000000	10.00000000	1.62882204	30.00000000	18.5714286	100.554

ID=28

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	9	15.55555556	20.53114166	0.00000000	55.00000000	6.84371389	140.00000000	421.52777778	131.986
BEDS	9	52.44444444	13.32395504	32.00000000	75.00000000	4.44131835	472.00000000	177.52777778	25.406
HRS	9	9.77777778	5.33333333	8.00000000	24.00000000	1.77777778	88.00000000	28.44444444	54.545
YRS	9	3.22222222	0.66666667	2.00000000	4.00000000	0.22222222	29.00000000	0.44444444	20.690

ID=29

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	7	35.00000000	8.66025404	20.00000000	50.00000000	3.27326835	245.00000000	75.00000000	24.744
BEDS	7	104.00000000	21.87845211	78.00000000	150.00000000	8.26927762	728.00000000	478.66666667	21.037
HRS	7	10.28571429	6.04743157	8.00000000	24.00000000	2.28571429	72.00000000	36.57142857	58.794
YRS	7	1.00000000	0.00000000	1.00000000	1.00000000	0.00000000	7.00000000	0.00000000	0.000

SUMMARY OF INDIVIDUAL CONSULTANT ACCOUNTS (CONTINUED)

STATISTICAL ANALYSIS SYSTEM

ID=32

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	3	65.00000000	44.44097209	15.00000000	100.00000000	25.65800720	195.00000000	1975.0000000	68.371
BEDS	3	90.66666667	26.55811238	60.00000000	106.00000000	15.33333333	272.00000000	705.3333333	29.292
HRS	3	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	24.00000000	0.0000000	0.000
YRS	3	1.00000000	0.00000000	1.00000000	1.00000000	0.00000000	3.00000000	0.0000000	0.000

ID=33

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	6	39.16666667	15.62583331	10.00000000	55.00000000	6.37921974	235.00000000	244.16666667	39.896
BEDS	6	60.16666667	18.81931632	45.00000000	96.00000000	7.68295371	361.00000000	354.16666667	31.279
HRS	6	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	48.00000000	0.00000000	0.000
YRS	6	5.50000000	4.92950302	1.00000000	10.00000000	2.01246118	33.00000000	24.30000000	89.627

ID=34

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	15	36.80000000	8.78472701	12.00000000	50.00000000	2.26820676	552.0000000	77.17142857	23.872
BEDS	15	71.00000000	19.71583845	25.00000000	106.00000000	5.09060760	1065.0000000	388.71428571	27.769
HRS	15	6.00000000	1.30930734	5.00000000	8.00000000	0.33806170	90.0000000	1.71428571	21.822
YRS	15	4.13333333	3.13657381	1.00000000	11.00000000	0.80985987	62.0000000	9.83809524	75.885

ID=36

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	3	45.66666667	39.82880030	2.00000000	80.00000000	22.99516857	137.00000000	1586.3333333	87.216
BEDS	3	66.66666667	31.75426481	30.00000000	85.00000000	18.33333333	200.00000000	1008.3333333	47.631
HRS	3	6.66666667	1.15470054	6.00000000	8.00000000	0.66666667	20.00000000	1.3333333	17.321
YRS	3	5.66666667	1.52752523	4.00000000	7.00000000	0.88191710	17.00000000	2.3333333	26.956

ID=38

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	3	27.66666667	32.88363321	3.00000000	65.00000000	18.98537449	83.00000000	1081.3333333	118.857
BEDS	3	76.66666667	51.31601439	20.00000000	120.00000000	29.62731472	230.00000000	2633.3333333	66.934
HRS	3	7.66666667	0.57735027	7.00000000	8.00000000	0.33333333	23.00000000	0.3333333	7.531
YRS	3	1.33333333	0.57735027	1.00000000	2.00000000	0.33333333	4.00000000	0.3333333	43.301

ID=39

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	5	15.00000000	9.35414347	5.00000000	25.00000000	4.18330013	75.00000000	87.5000000	62.361
BEDS	5	79.80000000	34.61502564	40.00000000	120.00000000	15.48031007	399.00000000	1198.2000000	43.377
HRS	5	11.20000000	4.38178046	8.00000000	16.00000000	1.95959179	56.00000000	19.2000000	39.123
YRS	5	10.40000000	0.54772256	10.00000000	11.00000000	0.24494897	52.00000000	0.3000000	5.267

ID=40

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	12	27.25000000	16.28231054	1.00000000	50.00000000	4.70029819	327.00000000	265.1136364	59.752
BEDS	12	69.08333333	32.80370914	25.00000000	150.00000000	9.46961515	829.00000000	1076.0833333	47.484
HRS	12	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	96.00000000	0.0000000	0.000
YRS	12	7.33333333	3.02514713	4.00000000	15.00000000	0.87328475	88.00000000	9.1515152	41.252

ID=42

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	4	24.25000000	18.04392788	2.00000000	45.00000000	9.02196394	97.00000000	325.58333333	74.408
BEDS	4	106.25000000	12.50000000	100.00000000	125.00000000	6.25000000	425.00000000	156.25000000	11.765
HRS	4	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	32.00000000	0.00000000	0.000
YRS	4	7.25000000	4.50000000	1.00000000	11.00000000	2.25000000	29.00000000	20.25000000	62.069

SUMMARY OF INDIVIDUAL CONSULTANT ACCOUNTS (CONTINUED)

STATISTICAL ANALYSIS SYSTEM

ID=43

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	4	85.25000000	38.16957776	37.00000000	128.00000000	19.08478888	341.00000000	1456.9166667	44.774
BEDS	4	75.00000000	37.41657387	35.00000000	125.00000000	18.70828693	300.00000000	1400.0000000	49.889
HRS	4	10.00000000	4.00000000	8.00000000	16.00000000	2.00000000	40.00000000	16.0000000	40.000
YRS	4	13.50000000	1.73205081	12.00000000	15.00000000	0.86602540	54.00000000	3.0000000	12.830

ID=44

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	6	25.16666667	29.80212520	0.00000000	71.00000000	12.16666667	151.00000000	888.1666667	118.419
BEDS	6	75.83333333	81.75675303	30.00000000	240.00000000	33.37705466	455.00000000	6684.1666667	107.811
HRS	6	22.00000000	23.42648074	8.00000000	64.00000000	9.56382071	132.00000000	548.8000000	106.484
YRS	6	1.16666667	0.40824829	1.00000000	2.00000000	0.16666667	7.00000000	0.1666667	34.993

ID=45

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	1	45.00000000	.	45.00000000	45.00000000	.	45.00000000	.	.
BEDS	1	75.00000000	.	75.00000000	75.00000000	.	75.00000000	.	.
HRS	1	24.00000000	.	24.00000000	24.00000000	.	24.00000000	.	.
YRS	1	1.00000000	.	1.00000000	1.00000000	.	1.00000000	.	.

ID=49

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	3	120.00000000	51.96152423	60.00000000	150.00000000	30.00000000	360.00000000	2700.000000	43.301
BEDS	3	177.00000000	193.26924225	58.00000000	400.00000000	111.58404904	531.00000000	37353.000000	109.192
HRS	3	32.00000000	0.00000000	32.00000000	32.00000000	0.00000000	96.00000000	0.000000	0.000
YRS	3	3.33333333	2.30940108	2.00000000	6.00000000	1.33333333	10.00000000	5.333333	69.282

ID=52

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	1	55.00000000	.	55.00000000	55.00000000	.	55.00000000	.	.
BEDS	1	50.00000000	.	50.00000000	50.00000000	.	50.00000000	.	.
HRS	1	8.00000000	.	8.00000000	8.00000000	.	8.00000000	.	.
YRS	1	1.00000000	.	1.00000000	1.00000000	.	1.00000000	.	.

ID=55

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	2	23.00000000	31.11269837	1.00000000	45.00000000	22.00000000	46.00000000	968.00000000	135.273
BEDS	2	52.50000000	3.53553391	50.00000000	55.00000000	2.50000000	105.00000000	12.50000000	6.734
HRS	2	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	16.00000000	0.00000000	0.000
YRS	2	2.50000000	0.70710678	2.00000000	3.00000000	0.50000000	5.00000000	0.50000000	28.284

ID=58

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	7	10.00000000	3.10912635	5.00000000	15.00000000	1.17513930	70.00000000	9.6666667	31.091
BEDS	7	85.00000000	32.14550254	40.00000000	120.00000000	12.14985793	595.00000000	1033.3333333	37.818
HRS	7	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	56.00000000	0.0000000	0.000
YRS	7	7.42857143	5.12695956	2.00000000	12.00000000	1.93780857	52.00000000	26.2857143	69.017

ID=59

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	13	50.00000000	0.00000000	50.00000000	50.00000000	0.00000000	650.0000000	0.00000000	0.000
BEDS	13	84.61538462	1.38675049	80.00000000	85.00000000	0.38461538	1100.0000000	1.92307692	1.639
HRS	13	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	104.0000000	0.00000000	0.000
YRS	13	1.23076923	0.83205029	1.00000000	4.00000000	0.23076923	16.0000000	0.69230769	67.604

SUMMARY OF INDIVIDUAL CONSULTANT ACCOUNTS (CONTINUED)

STATISTICAL ANALYSIS SYSTEM

ID=60

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	9	28.55555556	13.43606258	3.00000000	47.00000000	4.47868753	257.00000000	180.52777778	47.052
BEDS	9	56.88888889	25.60490404	27.00000000	118.00000000	8.53496801	512.00000000	655.61111111	45.009
HRS	9	8.88888889	2.66666667	8.00000000	16.00000000	0.88888889	80.00000000	7.11111111	30.000
YRS	9	9.55555556	4.66666667	1.00000000	13.00000000	1.55555556	86.00000000	21.77777778	48.837

ID=61

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	16	25.06250000	20.54740454	6.00000000	70.00000000	5.13685114	401.0000000	422.1958333	81.985
BEDS	16	83.75000000	33.14111243	45.00000000	135.00000000	8.28527811	1340.0000000	1098.3333333	39.571
HRS	16	9.00000000	2.73252020	8.00000000	16.00000000	0.68313005	144.0000000	7.4666667	30.361
YRS	16	5.18750000	3.37083076	1.00000000	12.00000000	0.84270769	83.0000000	11.3625000	64.980

ID=64

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	16	36.25000000	23.95412282	5.00000000	80.00000000	5.98853070	580.0000000	573.8000000	66.080
BEDS	16	65.06250000	34.09685958	28.00000000	125.00000000	8.52421490	1041.0000000	1162.5958333	52.406
HRS	16	8.50000000	2.00000000	8.00000000	16.00000000	0.50000000	136.0000000	4.0000000	23.529
YRS	16	3.12500000	1.45487686	1.00000000	5.00000000	0.36371921	50.0000000	2.1166667	46.556

ID=65

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	1	4.00000000	.	4.00000000	4.00000000	.	4.00000000	.	.
BEDS	1	40.00000000	.	40.00000000	40.00000000	.	40.00000000	.	.
HRS	1	8.00000000	.	8.00000000	8.00000000	.	8.00000000	.	.
YRS	1	13.00000000	.	13.00000000	13.00000000	.	13.00000000	.	.

ID=69

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	3	5.00000000	0.00000000	5.00000000	5.00000000	0.00000000	15.00000000	0.0000000	0.000
BEDS	3	145.00000000	95.00000000	65.00000000	250.00000000	54.84827557	435.00000000	9025.0000000	65.517
HRS	3	10.66666667	4.61880215	8.00000000	16.00000000	2.66666667	32.00000000	21.3333333	43.301
YRS	3	4.00000000	1.73205081	2.00000000	5.00000000	1.00000000	12.00000000	3.0000000	43.301

ID=70

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	1	109.00000000	.	109.00000000	109.00000000	.	109.00000000	.	.
BEDS	1	35.00000000	.	35.00000000	35.00000000	.	35.00000000	.	.
HRS	1	8.00000000	.	8.00000000	8.00000000	.	8.00000000	.	.
YRS	1	2.00000000	.	2.00000000	2.00000000	.	2.00000000	.	.

ID=71

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
DIST	10	35.90000000	45.39322025	1.00000000	106.00000000	14.35459663	359.00000000	2060.5444444	126.444
BEDS	10	64.70000000	33.54284159	25.00000000	120.00000000	10.60717786	647.00000000	1125.1222222	51.844
HRS	10	8.00000000	0.00000000	8.00000000	8.00000000	0.00000000	80.00000000	0.0000000	0.000
YRS	10	1.90000000	1.19721900	1.00000000	4.00000000	0.37859389	19.00000000	1.4333333	63.012

APPENDIX D

QUOTATIONS EXPRESSING ATTITUDES TOWARD CONSULTING AS A CAREER CHOICE

QUOTATIONS EXPRESSING ATTITUDES TOWARD CONSULTING AS A CAREER CHOICE

Highly Satisfying Responses: N = 19

I enjoy the variety of people I work with. Consulting is challenging. /I enjoy/ finding and trying varied approaches for all the different problems and situations.

Dietary personnel are eager to learn. /They/ enjoy the expertise of the dietitian /plus/ you are helping people who cannot help themselves /the resident or patient/.

. . . challenging, interesting, flexibility.

. . . own boss--set own hours--better pay.

. . . like being self-employed /and/ my own 'boss'; flexibility in schedule; many contacts with people; see it as a challenge!

. . . challenge of problem-solving; nutrition education for personnel, residents, families; progress.

I enjoy being able to develop new programs and enjoy being able to do both adm. /inistrative/ and clinical work.

I like not working full time and I like not having the responsibilities of day to day operation /that/ I had when working in a hospital.

I'm my own 'boss'.

There are new situations every time you go to a facility /and/ to help solve them is a challenge.

Since I cannot work full time, consulting helps me keep up with changes in medicine /and/ diet.

Nursing homes need so much help in foodservice.

I enjoy administration, therapeutics, lay-outs, cost accounting, etc. Broad knowledge required!

It is an opportunity to provide very important changes that benefit a large number of patients.

I feel that consulting is a very rewarding way of helping others to obtain good nutrition and happiness in institutions.

. . . can use expertise to effect improvements in many areas of foodservice--if patient enough.

I enjoy contact /and/ communication with patient /and/ personnel.

I see my job as motivator--one who supplies enthusiasm.

Consulting is the best of both worlds; you receive experience and practice in administration and therapeutics.

Moderately Satisfying Responses: N = 22*

I have too many extra curricular activities.

It is hard to accomplish what you want to. The consultant is completely dependent upon others to accomplish

. . . would be highly satisfying but for the time restrictions.

I only do consulting as a side choice to enrich and broaden diatetic knowledge, for me.

It is enjoyable work but results are not entirely satisfying because of lack of training of dietary employees.

I enjoy most the facilities that I spend the most time in /and/ accomplish something. Otherwise, if I don't have enough time I feel futile in my efforts.

I often feel the nursing home administrator had rather not deal with special diets, standards, etc. because they aren't important /enough/.

Consulting would be more satisfying if results were quicker.

I love working with the elderly but employee changes occur so frequently anymore it can be very discouraging.

. . . difficulty in dealing with some administrators, you can only suggest /and/ counsel, but you don't have the ability to see it through.

Frustrating because you do not have the control over the food-service.

Without line responsibility, many things cannot be accomplished which are desirable.

It combines professional work part time and family life very nicely. Poorly motivated dietary employees make is frustrating.

The biggest draw back to consulting is not having direct authority--having to motivate someone else can be very frustrating.

Not all recommendations /and/ suggestions are well received. And alot goes on when you are not at the facility daily.

. . . enables me to keep up with my profession /and/ yet have the number of accounts I want.

Have been at it too long--have dropped all but four accounts which offer ideal setting for a consultant.

. . . flexibility in work schedule, improvement in quality of service, slow progress.

Not Satisfying Responses: N = 1

. . . cannot see progress--very frustrating--too much work for 8 hours a month.

*Only 20 out of 22 respondents gave a reason for their response.

APPENDIX E

CONCERNS OF CONSULTANTS WHICH SHOULD BE ADDRESSED BY ADA AND ODA-- SELECTED QUOTATIONS

CONCERNS FOR ADA QUOTATIONS

Consultants should have a representative to the Board rather than through the Council on Practice only. It is a large practice group.

. . . salary scale for consultants in specific areas; more detail on number of hours to be spent in facility based on bed census . . .

. . . national politics /and/ public relations (i.e., t.v., radio, newspaper and magazines) . . . to educate the public as to what is a dietitian . . .

. . . procedures for nutritional assessment . . .

. . . working with legislation to ensure national guidelines for consulting services . . .

There should be a list of qualifications established by the ADA that must be met in order for an R.D. to be eligible for consulting positions. All R.D.'s who fall under the Grandfather Clause should be ineligible for consulting positions because their education and current knowledge are not 'up to par so to speak' as compared /with/ dietitians who have received their R.D. status via the R.D. exam. They should have to take and pass the exam.

. . . effective lobbying of U. S. legislators, effective input in nutrition policy-making; project good image to public . . .

. . . role understanding and important functions understood by other professionals and survey teams . . .

. . . qualifying standards for a consultant in experience . . .

. . . cost effectiveness . . .

. . . finding ways to prove or show /the consultants/ services do benefit a home . . .

. . . high health care dietary standards . . .

. . . cost control; state and federal regulations . . .

. . . better availability of films and materials for in-service programs . . .

. . . more time in facilities--a minimum of four hours a week . . .

. . . combined therapeutic diets; in-service education topics . . .

. . . geriatric nutrition . . .

. . . more communication among consultants . . .

. . . teaching young R.D.'s who would like to become consultants . . .

. . . continue workshops for consultants to keep them up with new developments in dietetics . . .

. . . would like to see some standardization of Title 19 inspections. They all seem to be different. I think every consultant knows of homes that seem to get picked to pieces just because the inspector can't find anything major wrong. Then there will be other, marginal, homes that have big problems but don't get the little nit-picking details.

I think consultants should just visit patients more, not necessarily interview them and they should allot part of their time for this.

CONCERNS FOR ODA QUOTATIONS

. . . consultants who don't earn their fee (peer review needed) . . .

. . . more information for in-service classes . . .

. . . hours in facility; salary; benefits; education for consultant previous to employment . . .

. . . continuing education . . .

. . . public relations and the state legislature . . .

. . . standardization of consulting techniques; emphasis on informing administrators about /consultants/ areas of expertise . . .

. . . procedures /for quality assurance and/ nutritional assessment . . .

. . . doctors writing combination diets that contradict each other . . .

. . . determine some common problem areas of health care facilities (perhaps from Title XIX surveyers) so dietitians could unify their efforts to solve problems. For example, are most patients receiving food at palatable temperatures? If not, what are some of the best food delivery systems in use and where are some in operation to observe.

. . . increasing time in facilities if current requirements remain the same . . .

. . . image of dietitians; contacts with other professionals in state . . .

. . . training for consultants--planned so that time is allowed for an interchange of ideas . . .

. . . would help to follow California Dietetic Association and get passage of a similar bill; positive support from the Oklahoma State Health Department . . .

. . . cost effectiveness; equipment; effective ways to educate people (not only as a class but in day-to-day contact) without letting them know you are doing so . . .

. . . more information about training, jobs, etc., be made public . . .

. . . high health care dietary standards . . .

APPENDIX F

CHI SQUARE DETERMINATIONS BETWEEN FUNCTIONAL ACTIVITIES AND SELECTED DEMOGRAPHIC VARIABLES

TABLE XX

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: PLANS AND WRITES RESIDENT MENUS BY AGE OF THE RESPONDENTS

Age of Respondents	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	CD or FS f	%	Total f	%
20-49	5	11.90	13	30.95	4	9.52	0	0.00	22	52.38
50 and over	0	0.00	18	42.86	2	4.76	0	0.00	20	47.62
Total	5	11.90	31	78.81	6	14.29	0	0.00	42	100.00

$X^2 = 6.392$ Df = 2 Prob = 0.0409

TABLE XXI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAKES MENU CHANGES BY AGE OF THE RESPONDENTS

Age of Respondents	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	CD or FS f	%	Total f	%
20-49	1	2.38	20	47.62	1	2.38	0	0.00	22	52.38
50 and over	1	2.38	12	28.57	7	16.67	0	0.00	20	47.62
Total	2	4.76	32	76.19	8	19.05	0	0.00	42	100.00

$X^2 = 6.419$ Df = 2 Prob = 0.0404

TABLE XXII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR STAFFING COSTS BY AGE OF THE RESPONDENTS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		CD or FS		Total	
Age of Respondents	f	%	f	%	f	%	f	%	f	%
20-49	2	5.00	2	5.00	5	12.50	13	32.50	22	55.00
50 and over	1	2.50	5	12.50	9	22.50	3	7.50	18	45.00
Total	3	7.50	7	17.50	14	35.00	16	40.00	40	100.00

$X^2 = 8.699$ Df = 3 Prob = 0.0336

TABLE XXIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR INVENTORIES BY AGE OF THE RESPONDENTS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Age of Respondents	f	%	f	%	f	%	f	%	f	%
20-49	5	12.50	1	2.50	12	30.00	4	10.00	22	55.00
50 and over	0	0.00	6	15.00	9	22.50	3	7.50	18	45.00
Total	13	12.50	7	17.50	21	52.50	7	17.50	40	100.00

$X^2 = 8.831$ Df = 3 Prob = 0.0316

TABLE XXIV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR BUDGETS BY AGE OF THE RESPONDENTS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Age of Respondents	f	%	f	%	f	%	f	%	f	%
20-49	1	2.56	2	5.13	5	12.82	13	33.33	21	53.85
50 and over	0	0.00	9	23.08	3	7.69	6	15.38	18	46.15
Total	1	2.56	11	28.21	21	20.51	19	48.72	39	100.00

$X^2 = 8.352$ Df = 3 Prob = 0.0393

TABLE XXV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS OR REPORTS FOR COST/BENEFIT CHANGES SUGGESTED OR IMPLEMENTED BY AGE OF THE RESPONDENTS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Age of Respondents	f	%	f	%	f	%	f	%	f	%
20-49	7	17.95	4	10.26	2	5.13	9	23.08	22	56.41
50 and over	6	15.38	10	25.64	0	0.00	1	2.56	17	43.59
Total	13	33.33	14	35.90	2	5.13	10	25.64	39	100.00

$X^2 = 10.581$ Df = 3 Prob = 0.0142

TABLE XXVI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR COST/BENEFIT CHANGES SUGGESTED OR IMPLEMENTED BY AGE OF THE RESPONDENTS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Age of Respondents	f	%	f	%	f	%	f	%	f	%
20-49	6	15.38	6	15.38	2	5.13	8	20.51	22	56.41
50 and over	5	12.82	11	28.21	0	0.00	1	2.56	17	43.59
Total	11	28.21	17	43.59	2	5.13	9	23.08	39	100.00

$X^2 = 8.505$ Df = 3 Prob = 0.0367

TABLE XXVII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: ASSIGNS FOOD PREPARATION WORK TO EMPLOYEES BY DEGREE ATTAINED

Highest Degree Attained	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
B.S.	0	0.00	0	0.00	26	65.00	2	5.00	28	70.00
M.S. or M.P.H.	1	2.50	2	5.00	9	22.50	0	0.00	12	30.00
Total	1	2.50	2	5.00	35	87.50	2	5.00	40	100.00

$X^2 = 8.163$ Df =3 Prob = 0.0428

TABLE XXVIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: CONDUCTS EXIT INTERVIEWS WITH PERSONNEL BY DEGREE ATTAINED

Highest Degree Attained	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
B.S.	0	0.00	3	7.89	18	47.37	5	13.16	26	68.42
M.S. or M.P.H.	1	2.63	0	0.00	4	10.53	7	18.42	12	31.58
Total	1	2.63	3	7.89	22	57.89	12	31.58	38	100.00

$X^2 = 9.354$ Df = 3 Prob = 0.0249

TABLE XXIX

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR CENSUS BY DEGREE ATTAINED

Highest Degree Attained	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
B.S.	6	15.38	5	12.82	11	28.21	5	12.82	27	69.23
M.S. or M.P.H.	0	0.00	3	7.69	2	5.13	7	17.95	12	30.77
Total	6	15.38	8	20.51	13	33.33	12	30.77	39	100.00

$X^2 = 8.561$ Df = 3 Prob = 0.0357

TABLE XXX

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR INVENTORIES BY DEGREE ATTAINED

Highest Degree Attained	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
B.S.	0	0.00	1	2.63	23	60.53	2	5.26	26	68.42
M.S. or M.P.H.	0	0.00	0	0.00	7	18.42	5	13.16	12	31.58
Total	0	0.00	1	2.63	30	78.95	7	18.42	38	100.00

$X^2 = 6.550$ Df = 2 Prob = 0.0378

TABLE XXXI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR CENSUS BY LENGTH OF ADA MEMBERSHIP

Length of Membership in Years	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Less than 20	6	15.00	2	5.00	7	17.50	10	25.00	25	62.60
Greater than 20	1	2.50	6	15.00	6	15.00	2	5.00	15	37.50
Total	7	17.50	8	20.00	13	32.50	12	30.00	40	100.00

$X^2 = 9.047$ Df = 3 Prob = 0.0287

TABLE XXXII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS OF FOOD COSTS BY LENGTH OF ADA MEMBERSHIP

Length of Membership in Years	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Less than 20	4	10.00	2	5.00	8	20.00	11	27.50	25	62.50
Greater than 20	1	2.50	6	15.00	6	15.00	2	5.00	15	37.50
Total	5	12.50	8	20.00	14	35.00	13	32.50	40	100.00

$X^2 = 8.338$ DF = 3 Prob = 0.0395

TABLE XXXIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR INVENTORIES BY LENGTH OF ADA MEMBERSHIP

Length of Membership in Years	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Less than 20	5	12.50	1	2.50	13	32.50	6	15.00	25	62.50
Greater than 20	0	0.00	6	15.00	8	20.00	1	2.50	15	37.50
Total	5	12.50	7	17.50	21	52.50	7	17.50	40	100.00

$X^2 = 11.556$ Df = 3 Prob = 0.0091

TABLE XXXIV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MODIFIES RECIPES FOR ENERGY SAVINGS BY ROUTE TO ADA REGISTRATION

Route to Registration	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Grandfather Clause	1	2.50	9	22.50	3	7.50	7	17.50	20	50.00
R.D. Exam	4	10.00	2	5.00	1	2.50	13	32.50	20	50.00
Total	5	12.50	11	27.58	4	10.00	20	50.00	40	100.00

$X^2 = 9.055$ Df = 3 Prob = 0.0286

TABLE XXXV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
ESTABLISHES CLEANING SCHEDULES AND PROCEDURES
BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	0	0.00	18	45.00	1	2.50	1	2.50	20	50.00
R.D. Exam	1	2.50	11	27.50	8	20.00	0	0.00	20	50.00
Total	1	2.50	29	72.50	9	22.50	1	2.50	40	100.00

$X^2 = 9.134$ Df = 3 Prob = 0.0276

TABLE XXXVI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
DEVELOPS RECORDS, FORMS, OR REPORTS FOR CENSUS
BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	2	5.13	6	15.38	9	23.08	2	5.13	19	48.72
R.D. Exam	5	12.82	1	2.56	4	10.26	10	25.64	20	51.28
Total	7	17.95	7	17.45	13	33.33	12	30.77	39	100.00

$X^2 = 12.096$ DF = 3 Prob = 0.0071

TABLE XXXVII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR SUMMARY OF FOOD COSTS BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	2	5.13	7	17.95	8	20.51	2	5.13	19	48.72
R.D. Exam	3	7.69	1	2.56	5	12.82	11	28.21	10	51.28
Total	5	12.82	8	20.51	13	33.33	13	33.33	39	100.00

$X^2 = 11.605$ Df = 3 Prob = 0.0089

TABLE XXXVIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS OR REPORTS FOR STAFFING COSTS BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	1	2.56	6	15.38	8	20.51	4	10.26	19	48.72
R.D. Exam	2	5.13	1	2.56	5	12.82	12	30.77	20	51.28
Total	3	7.69	7	17.95	13	33.33	16	41.03	39	100.00

$X^2 = 8.577$ Df = 3 Prob = 0.0355

TABLE XXXIX

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS FOR BUDGETS BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	0	0.00	10	26.32	5	13.16	4	10.53	19	50.00
R.D. Exam	1	2.63	0	0.00	3	7.89	15	39.47	19	50.00
Total	1	2.63	10	26.32	8	21.05	19	50.00	38	100.00

$X^2 = 17.868$ Df = 3 Prob = 0.0005

TABLE XL

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, REPORTS FOR COST/BENEFIT CHANGES SUGGESTED OR IMPLEMENTED BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	6	15.79	10	26.32	1	2.63	1	2.63	18	47.37
R.D. Exam	7	18.42	3	7.89	1	2.63	9	23.68	20	52.63
Total	13	34.21	13	34.21	2	5.26	10	26.32	38	100.00

$X^2 = 10.169$ Df = 3 Prob = 0.0172

TABLE XLI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS OR REPORTS FOR CENSUS BY ROUTE TO ADA REGISTRATION

Route to Registration	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Grandfather Clause	0	0.00	5	12.82	12	30.77	2	5.13	19	48.72
R.D. Exam	0	0.00	1	2.56	10	25.64	9	23.08	20	51.28
Total	0	0.00	6	15.38	22	56.41	11	28.21	39	100.00

$X^2 = 7.282$ Df = 2 Prob = 0.0262

TABLE XLII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR SUMMARY OF FOOD COSTS BY ROUTE TO ADA REGISTRATION

Route to Registration	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Grandfather Clause	1	2.56	4	10.26	12	30.77	2	5.13	19	48.72
R.D. Exam	1	2.56	0	0.00	10	25.64	9	23.08	20	51.28
Total	2	5.13	4	10.26	22	56.41	11	28.21	39	100.00

$X^2 = 8.616$ Df = 3 Prob = 0.0349

TABLE XLIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR BUDGETS BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	0	0.00	6	15.38	9	23.08	4	10.26	19	48.72
R.D. Exam	0	0.00	0	0.00	6	15.38	6	35.90	20	51.28
Total	0	0.00	6	15.38	15	38.46	15	46.15	39	100.00

$X^2 = 12.138$ Df = 2 Prob = 0.0023

TABLE XLIV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR COST/ BENEFIT CHANGES SUGGESTED OR IMPLEMENTED BY ROUTE TO ADA REGISTRATION

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Route to Registration	f	%	f	%	f	%	f	%	f	%
Grandfather Clause	4	10.53	12	31.58	1	2.63	1	2.63	18	47.37
R.D. Exam	7	18.42	4	10.53	1	2.63	8	2.63	20	52.63
Total	11	28.95	16	42.11	2	5.26	9	23.68	38	100.00

$X^2 = 10.186$ Df = 3 Prob = 0.0171

TABLE XLV

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
MAKES MENU CHANGES BY EMPLOYMENT STATUS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Employment Status	f	%	f	%	f	%	f	%	f	%
Full time (35 hours per week or more)	1	2.38	3	7.14	0	0.00	0	0.00	4	9.52
Half time or more but less than full time	0	0.00	14	33.33	2	4.76	0	0.00	16	38.10
Less than half time	0	0.00	14	33.33	4	9.52	0	0.00	18	42.86
Consulting as a second job	1	2.38	1	2.38	2	4.76	0	0.00	4	9.52
Total	2	4.76	32	76.19	8	19.05	0	0.00	42	100.00

$X^2 = 13.380$ DF = 6 Prob = 0.0374

TABLE XLVI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR COST/ BENEFIT CHANGES SUGGESTED OR IMPLEMENTED BY EMPLOYMENT STATUS

	Performer of Activity									
	CD Only		Both CD and FS		FS Only		Neither CD or FS		Total	
Employment Status	f	%	f	%	f	%	f	%	f	%
Full time (35 hours per week or more)	4	10.26	0	0.00	0	0.00	0	0.00	4	10.26
Half time or more but less than full time	2	5.13	10	25.64	0	0.00	4	10.26	16	41.03
Less than half time	3	7.69	5	12.82	2	5.13	5	12.82	15	38.46
Consulting as a second job	2	5.13	2	5.13	0	0.00	0	0.00	4	10.26
Total	11	28.21	17	43.59	2	5.13	9	23.08	39	100.00

$X^2 = 18.952$ Df = 9 Prob = 0.0256

TABLE XLVII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
PLANS AND WRITES RESIDENT MENUS
BY PRIORITY PLAN

Priority Plan	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Yes	5	12.50	9	22.50	4	10.00	0	0.00	18	45.00
No	0	0.00	20	50.00	2	5.00	0	0.00	22	55.00
Total	5	12.50	29	72.50	6	15.00	0	0.00	40	100.00

$X^2 = 9.534$ Df = 2 Prob = 0.0085

TABLE XLVIII

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
MODIFIES RECIPES FOR ENERGY SAVINGS
BY PRIORITY PLAN

Priority Plan	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Yes	1	2.56	8	20.51	0	0.00	8	20.51	17	43.59
No	4	10.26	2	5.13	4	10.26	12	30.77	22	56.41
Total	5	12.82	10	25.64	4	10.26	20	51.28	39	100.00

$X^2 = 9.719$ Df = 3 Prob = 0.0211

TABLE XLVIX

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: CONFERS WITH PATIENTS REGARDING MODIFIED DIETS BY PRIORITY PLAN

Priority Plan	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Yes	0	0.00	17	42.50	1	2.50	0	0.00	18	45.00
No	11	27.50	11	27.50	0	0.00	0	0.00	22	55.00
Total	11	27.50	28	70.00	1	2.50	0	0.00	40	100.00

X^2 = 13.016 Df = 2 Prob = 0.0015

TABLE L

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY: PREPARES JOB DESCRIPTIONS BY PRIORITY PLAN

Priority Plan	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Yes	1	2.56	15	38.46	1	2.56	0	0.00	17	43.59
No	4	10.26	10	25.64	5	12.82	3	7.69	22	56.41
Total	5	12.82	25	64.10	6	15.38	3	7.69	39	100.00

X^2 = 7.956 Df = 3 Prob = 0.0469

APPENDIX G

CHI SQUARE DETERMINATIONS BETWEEN FREQUENCY OF PERFORMANCE BY CONSULTANTS OF FUNCTIONAL ACTIVITIES AND SELECTED DEMOGRAPHIC VARIABLES

TABLE LI

CHI SQUARE TABLE SHOWING THE FUNCTIONAL ACTIVITY:
HIRES DEPARTMENT PERSONNEL BY PRIORITY PLAN

Priority Plan	Performer of Activity: CD Only f	%	Both CD and FS f	%	FS Only f	%	Neither CD or FS f	%	Total f	%
Yes	0	0.00	0	0.00	16	41.03	1	2.56	17	43.59
No	0	0.00	0	0.00	15	38.46	7	17.95	22	56.41
Total	0	0.00	0	0.00	31	79.49	8	20.51	39	100.00

$X^2 = 3.956$ Df = 1 Prob = 0.0467

TABLE LII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: MAKES MENU CHANGES BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
20-49	15	44.12	5	14.71	20	58.82
50 and Over	5	14.71	9	26.47	14	41.18
Total	20	58.82	14	41.18	34	100.00

$X^2 = 5.247$ Df = 1 Prob = 0.0220

TABLE LIII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: DETERMINES AMOUNT OF FOOD TO BE PREPARED BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
20-49	6	50.00	0	0.00	6	50.00
50 and Over	3	25.00	3	25.00	6	50.00
Total	9	75.00	3	25.00	12	100.00

$X^2 = 4.000$ Df = 1 Prob = 0.0455

TABLE LIV

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: CHECKS REFRIGERATOR TEMPERATURES BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
20-49	5	14.71	15	44.12	20	58.82
50 and Over	0	0.00	14	41.18	14	41.18
Total	5	14.71	29	85.29	34	100.00

$X^2 = 4.103$ Df = 1 Prob = 0.0428

TABLE LV

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: CALCULATES MODIFIED DIETS BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
20-49	13	32.50	8	20.00	21	52.50
50 and Over	5	12.50	14	35.00	19	47.50
Total	18	45.00	22	55.00	40	100.00

$X^2 = 5.105$ Df = 1 Prob = 0.0239

TABLE LVI

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: DEVELOPS DEPARTMENT PROCEDURES BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
20-49	16	47.06	0	0.00	16	47.06
50 and Over	14	41.18	4	11.76	18	52.94
Total	30	88.24	4	11.76	34	100.00

$X^2 = 4.030$ Df = 1 Prob = 0.0447

TABLE LVII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: SETS OVERALL STANDARDS FOR QUALITY ASSURANCE BY AGE OF THE RESPONDENTS

Age of Respondents	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
20-49	14	38.89	5	13.89	19	52.78
50 and Over	6	16.67	11	30.56	17	47.22
Total	20	55.56	16	44.44	36	100.00

$X^2 = 5.355$ Df = 1 Prob = 0.0207

TABLE LVIII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE
BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY:
PLANS AND WRITES RESIDENT MENUS
BY DEGREE ATTAINED

Highest Degree Attained	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
B.S.	15	46.88	7	21.88	22	68.75
M.S. or M.P.H.	10	31.25	0	0.00	10	31.25
Total	25	78.13	7	21.88	32	100.00

$X^2 = 4.073$ Df = 1 Prob = 0.436

TABLE LIX

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE
BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY:
CONFERS WITH PATIENTS REGARDING
DIETS BY DEGREE ATTAINED

Highest Degree Attained	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
B.S.	10	25.64	18	46.15	28	71.79
M.S. or M.P.H.	0	0.00	11	28.21	11	28.21
Total	10	25.64	29	74.36	39	100.00

$X^2 = 5.283$ Df = 1 Prob = 0.0215

TABLE LX

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: DEVELOPS DEPARTMENT POLICIES BY DEGREE ATTAINED

Highest Degree Attained	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
B.S.	24	75.00	1	3.13	25	78.13
M.S. or M.P.H.	5	15.63	2	6.25	7	21.88
Total	29	90.63	3	9.38	32	100.00

$X^2 = 3.886$ Df = 1 Prob = 0.0487

TABLE LXI

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: MAKES MENU CHANGES BY LENGTH OF ADA MEMBERSHIP

Highest Degree Attained	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
B.S.	16	47.06	4	11.76	20	58.82
M.S. or M.P.H.	4	11.76	10	29.41	14	41.18
Total	20	58.82	14	41.18	34	100.00

$X^2 = 8.993$ Df = 1 Prob = 0.0027

TABLE LXII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE OF CONSULTANTS OF THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS OF DIETARY PROGRESS NOTES FOR PATIENT MEDICAL RECORDS BY LENGTH OF ADA MEMBERSHIP

Length of Membership in Years	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
Less than 20	12	37.50	6	18.75	18	56.25
Greater than 20	4	12.50	10	31.25	14	43.75
Total	16	50.00	16	50.00	32	100.00

$X^2 = 4.571$ Df = 1 Prob = 0.0325

TABLE LXIII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE OF CONSULTANTS OF THE FUNCTIONAL ACTIVITY: MAINTAINS RECORDS, FORMS, OR REPORTS FOR SUMMARY OF FOOD COSTS BY LENGTH OF ADA MEMBERSHIP

Length of Membership in years	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
Less than 20	2	33.33	0	0.00	2	33.33
Greater than 20	0	0.00	4	66.67	4	66.67
Total	2	33.33	4	66.67	6	100.00

$X^2 = 6.00$ Df = 1 Prob = 0.0143

TABLE LXIV

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: PLANS AND WRITES RESIDENT MENUS BY ROUTE TO ADA REGISTRATION

Route to Registration	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Grandfather Clause	10	31.25	6	18.75	16	50.00
R.D. Exam	15	46.88	1	3.13	16	50.00
Total	25	78.13	7	21.88	32	100.00

$X^2 = 4.571$ Df = 1 Prob = 0.0325

TABLE LXV

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: CHECKS PLATE WASTE BY ROUTE TO ADA REGISTRATION

Route to Registration	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Grandfather Clause	5	13.89	14	38.89	19	52.78
R.D. Exam	10	27.78	7	19.44	17	47.22
Total	15	41.67	21	58.33	36	100.00

$X^2 = 3.901$ Df = 1 Prob = 0.0483

TABLE LXVI

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: CALCULATES MODIFIED DIETS BY ROUTE TO ADA REGISTRATION

Route to Registration	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Grandfather Clause	6	15.38	14	35.90	20	51.28
R.D. Exam	12	30.77	7	17.95	19	48.72
Total	18	46.15	21	53.85	39	100.00

$X^2 = 4.311$ Df = 1 Prob = 0.0379

TABLE LXVII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: SETS OVERALL STANDARDS FOR QUALITY ASSURANCE BY ROUTE TO ADA REGISTRATION

Route to Registration	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Grandfather Clause	7	20.00	11	31.43	18	51.43
R.D. Exam	13	37.14	4	11.43	17	48.57
Total	20	57.14	15	42.86	35	100.00

$X^2 = 5.042$ Df = 1 Prob = 0.0247

TABLE LXVIII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: DEVELOPS RECORDS, FORMS, OR REPORTS OF DIETARY PROGRESS NOTES FOR PATIENT MEDICAL RECORD BY ROUTE TO ADA REGISTRATION

Route to Registration	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Grandfather Clause	5	16.13	13	41.94	18	58.06
R.D. Exam	10	32.26	3	9.68	13	41.94
Total	15	48.39	16	51.61	31	100.00

$X^2 = 7.300$ Df = 1 Prob = 0.0069

TABLE LXIX

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: CHECKS REFRIGERATOR TEMPERATURES BY EMPLOYMENT STATUS

Employment Status	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Full time (35 hours per week or more)	1	2.94	3	8.82	4	11.76
Half time or more but less than full time	1	2.94	14	41.18	15	44.12
Less than half time	1	2.94	12	35.29	13	38.24
Consulting as a second job	2	5.88	0	0.00	2	5.88
Total	5	14.71	29	85.29	34	100.00

$X^2 = 13.221$ Df = 3 Prob = 0.0042

TABLE LXX

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY: PREPARES JOB DESCRIPTIONS BY EMPLOYMENT STATUS

Employment Status	Frequency of Performance: Only Occasionally f	%	Almost Every Visit at Home or Office Prior to Visit f	%	Total f	%
Full time (35 hours per week or more)	2	6.45	0	0.00	2	6.45
Half time or more but less than full time	13	41.94	0	0.00	13	41.94
Less than half time	13	41.94	1	0.00	13	41.94
Consulting as a second job	2	6.45	1	3.23	3	9.68
Total	30	96.77	1	3.23	13	100.00

$X^2 = 9.644$ Df = 3 Prob = 0.0218

TABLE LXXI

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE
BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY:
MAINTAINS RECORDS, FORMS, OR REPORTS
FOR STAFFING COSTS
BY PRIORITY PLAN

Priority Plan	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
Yes	2	50.00	0	0.00	2	50.00
No	0	0.00	2	50.00	2	50.00
Total	2	50.00	2	50.00	4	100.00

$X^2 = 4.000$ Df = 1 Prob = 0.0455

TABLE LXXII

CHI SQUARE TABLE SHOWING FREQUENCY OF PERFORMANCE
BY CONSULTANTS OF THE FUNCTIONAL ACTIVITY:
MAKES REGULAR PREVENTIVE MAINTENANCE
CHECKS OF ALL EQUIPMENT
BY PRIORITY PLAN

Priority Plan	Frequency of Performance: Only Occasionally		Frequency of Performance: Almost Every Visit at Home or Office Prior to Visit		Total	
	f	%	f	%	f	%
Yes	2	18.18	2	18.18	4	36.36
No	7	63.64	0	0.00	7	63.64
Total	9	81.82	2	18.18	11	100.00

$X^2 = 4.278$ Df = 1 Prob = 0.0386

VITA 2

Judith Faye

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