

THE ENTRY-LEVEL GENERALIST DIETITIAN: EXPECTATIONS
OF THE HOSPITAL DIETETIC PRACTITIONER

by

MARILYN S. LOYD

B.S., Kansas State University, 1972

A MASTER'S THESIS

submitted in partial fulfillment of the
requirements for the degree

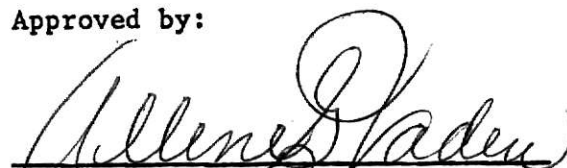
MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1975

Approved by:


Major Professor

LD
2668
T4
1975
L69
C.2
Document

ACKNOWLEDGMENTS

Sincere appreciation is expressed to Dr. Allene Vaden for her assistance and encouragement with this research and her guidance and advice throughout the graduate study; for helping in a way that is truly her own. Dr. Donald Hoyt's interest and insight enriched the study. Thanks to Mrs. Grace Shugart and Dr. Faith Roach, who contributed their expertise in reviewing the manuscript and serving on the committee.

Special thanks to my brother Jim, and my sister, Linda, for folding envelopes, licking stamps, and for moral support and to Karen, for being my "sounding board" and friend. My parents and grandmother gave me their confidence and support.

Deep appreciation is expressed to all the dietitians who participated in the study. With their contributions and the technical assistance of Nedra Sylvis this thesis became a reality.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
INTRODUCTION	1
Operational Definitions of Terms	3
REVIEW OF LITERATURE	5
Development of the Profession	5
Characteristics and Duties of Dietitians	6
Definitions and Goals	6
Perceptions of Characteristics of Dietitians	8
Activities and Responsibilities of Dietitians	12
Dietetic Education	18
Academic Requirements	18
Education of Dietitians	22
Studies Relating to Dietetic Education	24
Studies Relating to Competencies in Dietetics	29
Competency Based Education	30
METHODOLOGY	33
Development of Competencies for the Entry-Level Generalist Dietitian	33
Limitation of the Study	34
Development of the Instrument	34
Selection of Sample	37
Distribution of the Research Instrument	37
Data Analysis	38

	Page
RESULTS AND DISCUSSION	40
Description of the Sample	40
Factor Analysis	45
Essential Competencies for the Entry-Level Generalist Dietitian	47
Essential Administrative Competencies	48
Relationship to Demographic Data	56
Supervision of the Entry-Level Dietitian	56
Essential Clinical Competencies	58
Relationship to Demographic Data	64
Supervision of the Entry-Level Dietitian	69
Comments of Respondents	69
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	73
REFERENCES	79
APPENDIXES	86
A. Competencies of the Entry-Level Generalist Dietitian	87
B. Pretest Correspondence, and Instrument	96
C. Research Instrument: Administrative Form	105
D. Research Instrument: Clinical Form	108
E. Correspondence and Enclosure with Research Instrument	111
F. Coding Categories	115
G. Supplemental Tables 9-14	119

LIST OF TABLES

Table	Page
1. Place of employment of ADA members	35
2. Responses to survey instruments	41
3. Characteristics of study sample	42
4. Factor analysis of competency statements	46
5. Essentiality and degree of supervision for entry-level administrative competencies	49
6. Significant F ratios for analyses of variance of administrative competence ratings (scale b--degree of supervision)	57
7. Essentiality and degree of supervision for entry-level clinical competencies	59
8. Significant F ratios for analyses of variance of clinical competency ratings	65
9. Factor analysis of administrative value statements	120
10. Factor analysis of clinical value statements	123
11. Mean scores and percentage distribution of responses on essentiality and degree of supervision scales for administrative competencies	126
12. Means and F ratios for essentiality and degree of supervision scores on administrative competencies by area of country, years in ADA, years employed in profession, size of hospital, and number of dietitians on staff	129
13. Mean scores and percentage distribution of responses on essentiality and degree of supervision scales for clinical competencies	139
14. Means and F ratios for essentiality and degree of supervision scores on clinical competencies by area of country, years in ADA, years employed in profession, size of hospital, and number of dietitians on staff	142

INTRODUCTION

A profession has an obligation to society to provide competent practitioners. In dietetics, as in other health related professions, attention should be directed to identifying present competencies of various levels within the profession and new competencies that will allow for greater contribution to maximum health care. Identification of competencies for the entry-level dietitian is an initial step. By establishing these competencies and using them for building educational programs, the role of dietitians on health and/or management teams can be advanced.

Establishing the degree of competency becomes more important with credentialing and professional review. Hart and Sharp (1) indicated the need to establish competencies of entry-level generalist, administrative, and clinical dietitians, and the various other specialties that are developing within the field. Once consensus has been reached, competency-based certification examinations could be developed that relate to criterion tasks that access the standards necessary for acceptable performance.

Although some skills can be gained on the job, the beginning dietitian is assumed to have a certain amount of knowledge and competency. In training the entry-level professional, a prime concern of educators is defining the expected level of performance. Katz (2) identified the three types of skills for managerial personnel as technical, human, and conceptual. Katz defined technical skill as that which implies an understanding of, and proficiency in, a specific kind of activity, particularly one involving methods, processes, procedures, or techniques. Human skill is the executive's ability to work effectively as a group member and to build cooperative effort within the team. Conceptual skill involves the ability to see

the organization as a whole; it includes recognizing the interdependence of various functions of the organization, and how changes in any one part affect all others. He further specified the first level position as involving primarily technical and human skills, with little emphasis on conceptual skills. This model has application to delineation of competencies needed at various levels of organizations for professionals in other fields.

The dietetic profession has given top priority to the identification of competencies for the entry-level dietitian (3-5). By the 1980's, membership in The American Dietetic Association (ADA) should be based on competencies, using Plan IV of the Minimum Academic Requirements (6). These competencies were developed primarily by educators to describe the academic outcomes of the education of entry-level dietitians.

Competencies are needed that include the clinical or applied aspects of the educational process, those experiences based on actual activities related to the practice of dietetics--which are provided in the coordinated undergraduate programs in dietetics or in dietetic internships. In 1972, Cagguila was commissioned by the ADA Executive Board (7) to develop entry-level competencies for the generalist dietitian as a first step in the process of identifying competencies for the profession. Again, these have been evaluated primarily by educators. To insure validity for academic and clinical preparation input also is needed from practitioners, employers, and clients. Piper (8) stressed the need for continuing exchange between educators and practitioners.

The purpose of this study was to secure information from hospital dietetic practitioners concerning their expectations of the entry-level generalist dietitian. The competencies developed by Cagguila were used as

the basis for the research (Appendix A). What do professionals in the field view as the necessary skills for effective practice? How much supervision is required in various aspects of practice? The study was limited to hospital dietitians since they comprise the largest group within the profession (9). The information from this study will provide valuable input for development and evaluation of curricula for dietetic educational programs. Literature reviewed relevant to the study included: development of the dietetics profession, characteristics and duties of dietitians, and education of dietitians.

Operational Definitions of Terms

The following operational definitions were used in the conceptualization of the research:

Dietitian. A specialist educated for a profession responsible for the nutritional care of individuals or groups. This care includes the application of science and the art of human nutrition in helping people select and obtain food for the primary purpose of nourishing their bodies in health or disease throughout the life cycle (10).

Generalist Dietitian. A dietitian that is competent to practice primarily in two areas of dietetics: clinical and administrative (11).

Entry-Level Dietitian. An individual who has completed all of the preprofessional requirements (undergraduate plus internship, coordinated undergraduate, or undergraduate plus traineeship) and has entered the profession in a first position. The dietitian has been employed in this position for at least a two month period and has become thoroughly familiar with the institution, the department or program, and the area for which he/she is responsible. The first position is viewed as a staff position

with responsibility for an area or unit within the organization. The individual would be supervised by an experienced dietitian (11).

Competencies. Integrated factors that influence effective behavior. These factors include knowledge of the job and theory professionals need to master in order to perform their role successfully (12).

Level of Competence. The dietitian should be able to perform tasks independently or either in cooperation with or under the direction of the administrative or clinical specialist (12).

REVIEW OF LITERATURE

Development of the Profession

The growth of the dietetics profession has been mainly in the twentieth century, although a proper diet has been stressed since the days of Hippocrates (13). Cooper (14) identified one of the first dietitians as Florence Nightingale, who realized the importance of a properly chosen diet in the treatment of disease.

At the national home economics association meeting in 1899, the term "dietitian" was first used to designate the person who specialized in the knowledge of food and could meet the medical demands of diet therapy (15). In the early days, dietitians were usually employed to teach in a cooking school or to instruct nurses in ways to prepare and serve food to the sick. Sara Tyson Rorer, one of these early dietitians, opened the Philadelphia Cooking School which included a course on diets that could be used as therapy for patients (16,17). Not until the science of nutrition was incorporated with the art of dietetics did the dietitian achieve a distinct professional status (18). With the establishment of a national organization in 1917 came full recognition of the profession.

The problems caused by World War I provided the stimulus for dietetics to become a profession. Lenna F. Cooper and Lula G. Graves invited other persons with an interest in dietetics to a conference in Cleveland, October 18-20, 1917, to determine the means by which they would serve the hospital needs at home and overseas. Ninety-eight persons came and a decision was made during the business meeting to form an independent group for dietitians--The American Dietetic Association (18).

Lipscomb (19) credits The American Home Economics Association for being a crusader in recognizing the need for and economic value of the dietitian. The Association promoted dietetics as a career for the educated woman. During the 1906 Lake Placid Conference, discussions included finding a better word to describe the institutional food expert, as terms based on "diet" implied a hospital atmosphere. Terms suggested included eufagist, dietist, and refector (19).

In early days, dietitians worked alone in remote areas of the hospital and had little communication with the physician. There were no standards to live up to; dietitians relied on their own ideas in establishing a system of duties. They faced problems of food shortages, scarcity of workers, and difficulty in keeping efficient employees on the job (18).

A gain of confidence in the profession came in the 1930's, when the American College of Surgeons' specifications for approval of a hospital stated that the department must be headed by a person whose education and experience met ADA requirements (20). Membership in ADA has become the primary standard for identification of dietitians since that time (6).

A dichotomy has always existed in the administrative and clinical aspects of the profession. As early as 1925, MacEachern (21) recognized that the dietitian's responsibilities also included teaching of nutrition. He believed that the full responsibility and authority for foodservice should be placed with the dietitian.

Characteristics and Duties of Dietitians

Definitions and Goals

In 1970, The American Dietetic Association assigned to an independent Commission on Dietetics the responsibility for studying all aspects of

dietetic practice and education. The Commission report (22) shed considerable light on the way dietetic practitioners, educators, physicians, and hospital administrators viewed the dietitian. To explain the question of "Who and What are dietitians?" the Commission developed this definition: "The dietitian is a 'translator' of the science of nutrition into the skill of furnishing optimal nourishment to people." The report indicated that the nature and purpose of the institution where dietitians are employed affects their duties, but the essence of the definition is still true regardless of their role (22).

In 1974 an ADA committee (10) to develop a glossary of terminology for the profession reported titles, definitions, and suggested responsibilities for various professional positions. The definition for a dietitian was described in an earlier section. A registered dietitian has successfully completed the registration examination and maintains continuing education requirements (10).

The administrative dietitian is a member of the management team and the clinical dietitian, a member of the health care team. Duties that are common to both include: maintaining effective communication and public relations; managing human resources effectively; administering personnel policies; compiling and utilizing pertinent operational data to assure provision of quality nutritional care; and utilizing pertinent current research (10).

Administrative duties include: management functions in foodservice systems; establishment and maintenance of standards for food production and service, sanitation, safety and security, and orientation and in-service educational programs; development of menu patterns and evaluation of client acceptance; development of specifications for procurement of food,

equipment, and supplies; management of financial resources; and planning of layout designs. The clinical dietitian assesses nutritional needs; develops and implements nutritional care plans, adapts plans to individual life styles, and evaluates and reports results; counsels individuals and families in nutritional principles, dietary plans, food selection, and economics; serves as a consultant on nutritional care; evaluates food served for conformance to quality standards and dietary prescriptions; provides nutrition education to students and personnel; and develops educational materials (10).

Goals have been derived for the continuing education of dietitians. The unique contribution of the dietitian was described as nutritional care. The dietitian was depicted as understanding and applying the science and art of nutrition to the goal of individual and group health and having the ability to evaluate, interpret, and utilize relevant research findings. Sharing specialized nutrition knowledge with associated professionals in health care programs and being aware of change in environmental influences that affect the goals in health care are components of the goals. The goals also reflect the importance of recognizing individual differences and realizing persons' capacity to change and develop, skill in the communication processes, and competency in managing resources--physical facilities, finances, and people. The ability to assess and use one's own time and talents effectively and acceptance of the responsibility for developing competency as a professional also were among the goal statements (23).

Perceptions of Characteristics of Dietitians

Kirk (24) asserted that factors contributing to a feeling of competence and sense of one's worth among other professionals include the type

of preparation and knowledge and attitudes learned. Also, if the opportunities for becoming a confident person are lacking, the dietitian may emerge as a frustrated, hesitant, and basically withdrawn type of person. He concluded that the responsibilities of the position require firmness and confidence, not timidity and withdrawal.

Since early in the profession, tolerance, generosity, courtesy, friendliness, poise, cordiality, consideration for others, insight into basic problems, initiative, and ability for leadership have been listed as qualities that administrators consider important for dietitians (21,25). The need to set and maintain high standards but also avoid rigidity, and the ability to work with other people and to adapt to existing work conditions also have been delineated as desirable qualities (25).

Among early descriptions of the dietitian, Copher (26) stated that the ability to deal with situations comes with experience. She intimated that good judgment is formed by mistakes; that it takes courage to meet disappointments; and that no one is equally endowed with each quality--some come only with "the mellowing influence of years" (26). MacLachlan (27) stated a dietitian must have an understanding mind as well as vocational proficiency, a sense of responsibility, and the ability to direct others. Early descriptions (28) of the personal qualifications needed by student dietitians included: enthusiasm, open-mindedness, confidence, ability to accept criticism, tactfulness, perserverance, ability to act quickly in emergencies, and a sense of integrity.

In comparing the personality patterns of nurses and dietitians, Cleveland (29) found the dietetic interns to be achievement and success oriented. The dietitians were found to be status conscious and to exert a feeling of natural superiority. The need for prestige was satisfied through

opportunities to influence others. The interns chose dietetics for a career because it represented intellectual stimulation and a challenge.

Hornaday's study (30) of interest patterns showed that dietitians prefer situations where they can be in a position of power and authority. Their profile indicated a preference for the discovery of new facts and solving problems, helping people, and being active in groups. Respondents showed a strong disinterest in clerical activities; although Noland and Steinberg (31) reported that therapeutic dietitians spend 35 per cent, or the largest segment of work time, in written communication.

Wagner and Dreyer (32) observed that hospital dietitians handle frustrating situations differently, depending on the status of the individuals involved. Administrative dietitians were more directly aggressive than therapeutic dietitians. Conversely, more therapeutic dietitians than administrative dietitians tended to blame themselves for failures and to admit mistakes to low status individuals.

Personal qualities are difficult to define because different organizations and environmental conditions require different qualities. Several papers in the literature deal with hospital administrators' perception of dietitians (33-36). Cartmill (33) indicated that he expected the director of dietetics to possess imagination, objectivity, thirst for knowledge, openmindedness, alertness to change, and ability to communicate. In evaluating the performance of his department heads Ross (34) considered technical competency, people proficiency, problem-solving ability, and salesmanship. He also expected administrative and professional personnel to establish priority systems, to follow-up and act on problems, and to make independent decisions. Rainer (35) indicated dietitians need to be

totally responsible for their department--for quality food, teaching, and high professional standards.

Cartmill (36) considered communication and responsibility the areas where the most misunderstanding arises between dietitians and administrators. He contended an effective dietitian must be aware of the duties and responsibilities of the job, accountable to the administrator, and communicate progress. Kurtz (37) believed that administrators and dietitians need to agree on organizational philosophy. Kurtz emphasized the need of the director to be a member of the institution's planning team.

Bartlett (38) believed that administrative experience can be improved by seeking employment in smaller hospitals where all dietitians are more exposed to the department head's responsibilities. She stated that executive ability was a definite requisite for future department heads and that experience tends to develop executive ability.

Kirk (24) asserted that many people have a negative or passive opinion of the dietitian's role. He attributed this to the obscurity of the dietitian in the time-consuming planning, often in seclusion and in remote areas of the hospital. As a result little time is left for dealing with the patient or reflecting needs of the hospital. He suggested this obscurity depended on the hospital and on the dietitian's ability and background to be a known and recognized figure on the health team. From an administrator's viewpoint, Ross (34) purported that dietitians should avoid burying themselves in the kitchen and should demonstrate their professional competence and abilities. Carroll (39) warned, however, that no matter how competently other duties are performed, the dietitian's status will be judged mainly on the popularity of the meals served.

The report of the Study Commission on Dietetics (22) stated that many administrators wonder if the dietitians have been properly prepared to be managers of large foodservices. The Study Commission also concluded that physicians' own interests and area of clinical practice influenced their perceptions of dietitians' roles. If physicians practice in areas where diet is of critical concern, such as diabetes and renal disease, they worked more closely with dietitians and saw them as health professionals. Otherwise physicians tended to view dietitians as management technicians who furnish the "mechanics" of patient service. Many physicians believed that dietitians are not ready to assume the responsibilities of an expanded role in patient dietary management (22).

The Commission (22) hypothesized that other health professionals' opinions (such as nurses, social workers, and public health workers) appeared to be based on limited contact with dietitians. Therefore, they had a narrow understanding of dietitians' knowledge and potential services. Predominantly, dietitians were viewed as either consultants or food management employees (22).

Activities and Responsibilities of Dietitians

Several authors have reported on the activities of dietitians. A study by Lipscomb and Donaldson (40) determined dietitians' perceived time expenditures in contacts with other people, in individual effort, and in major responsibilities. Their findings indicated that dietitians spend their time similar to that of business executives, but with more time involved in instruction, inspection, negotiations, scheduling, and supervision. The directors in small hospitals spent more time consulting superiors on technical matters; those in large hospitals devoted a greater percentage

of time to teaching, instructing, and training. The greatest percentage of time was spent in personal observation, inspection, and examination of activities; the least time in publication writing. Major responsibilities varied with bed size. Directors of large hospitals used more time on inspection, investigation and research, planning, preparation of procedures and methods, coordination and professional consultation than did those in small hospitals. Time of directors in small hospitals was spent supervising the work of subordinates, in personnel activities, and in negotiating, which included buying for the department (40).

Noland and Steinberg (31) observed the activities of therapeutic dietitians and found that written and oral communications occupied over 70 per cent of their total working time. Written communications accounted for 35 per cent of their time--far more than any other of the ten work categories. Non-productive work activity accounted for 21.4 per cent of their time. Medical rounds and research activities comprised the least amount of their time. Dietitians devoted only 12 per cent of their time in direct patient contact. Vivian (41) reported that the effectiveness of the dietitian is in large part determined by the quality and orientation of her interaction with the patient.

Tillotson and Loughney (42) reported an experiment in a research hospital with a staffing pattern that was structured to utilize the therapeutic dietitian's skills. By giving the therapeutic dietitian more administrative assistance, a more professional role was possible. Physicians accepted the dietitians and utilized their knowledge in research projects. Only 3 per cent of their day was spent on routine tasks, mainly occurring in the off-duty hours of the clerical assistant (42).

The duties and responsibilities for dietitians and associated personnel were explained in a 1954 editorial (43). As the dietitian has delegated more non-professional duties within the department, her job description has been updated (10,44). Zahasky and Brady (45) established policies that could be used as evaluation of the effectiveness of the dietary department. A list of statements developed by ADA (46) in 1962, Responsibilities of Dietitians to Administrators and Physicians, was the beginning of an attempt to develop guidelines of expected performance. In 1963 standards were established for the minimal performance level in administration of a hospital dietary department. These standards covered organization, responsibilities, personnel policies, facilities, education, appraisal, and research (47).

The report on the profession of dietetics found that dietitians were reluctant to delegate some of their activities and, thus, were frequently working at a level below their true professional competence (22). In the 1960's, when an acute shortage of dietitians was occurring, the importance of delegation was realized. Johnson (48) speculated that some dietitians find it easier to be caught up in routine tasks than to take the time to delegate and then supervise those to whom the tasks have been delegated. She added that some dietitians may not know what to do with the resultant extra time which could be used in higher-level managerial functions.

Young (49) also stressed that too much of the dietitians' time was concerned with routine tasks. She added that most people find the time to do what they really want to do and are secure in doing and hypothesized that the failure of some dietitians to relinquish duties may be attributed, in part, to inflexibility or insecurity. She contended that therapeutic

dietitians should show more initiative and more effectiveness in using professional talents on the medical team and for the patient.

Bloetjes (50) advocated that delegation was a principle of management and the various levels within the organization are strengthened by better utilization of personnel. Directors of dietetics were asked to indicate which of the 143 duties he or she performed, who could perform the duty if it were delegated, and if the director did not perform the task, who did. Many of the duties, even those of a routine activity, were performed by directors (50). Kline and Dowling (51) found that the duties actually delegated to supportive personnel in each of the fifty-nine hospitals were not consistent with those regarded in theory to be appropriate for delegation.

Lipscomb and Donaldson (52) developed an instrument to study the opinions of administrators on the degree to which directors of dietetics fulfilled managerial responsibilities. Sixty-eight per cent of the administrators believed the directors almost always or always supported the objectives of the institution and 60 per cent reported quality food-service was provided. Only 35 per cent believed that the directors evaluate the function of their departments (52).

Clark (53) explored managerial skills that administrators and chief dietitians consider the most important for the chief dietitian. Ten statements describing managerial skills were ranked. Responses of administrators and chief dietitians were closely correlated. Both agreed that establishing long-range and short-range objectives was most important; research programs had the lowest priority (53).

In a study by Hofto and Brush (54), hospital administrators were asked to describe the performance of directors of dietetics in relation to

twenty-five managerial duties. Data from nineteen interviews showed the dietitians were performing at a good to excellent rate. More experienced administrators gave the dietitians higher ratings, independent of the number of dietitians with whom they had worked. Twenty-two of the twenty-five duties were evaluated as being performed almost always to always by half or more of the heads of departments of dietetics (54). Noland and Steinberg (31) asserted that evaluation of performance requires measurement of how time is spent, type of decision making, levels of skills utilized, pace of work performed, and the satisfaction of those benefited by services.

Schiller (55) focused on differences between dietitians' and physicians' definitions of the dietitian's role. A thirty-four item role-conception inventory that included five conventional activities and eight activities connoting high decision-making responsibilities was distributed to 2,000 physicians and 1,000 dietitians. Physicians agreed that dietitians should make a definite contribution to the health team, but they did not agree on the specific activities by which a dietitian can play a direct role in decision-making. Physicians were more critical of dietitians' performances than were dietitians. They tended to attribute problems in role performance to education, restricting hospital policies, and lack of interest, in that order; whereas dietitians ordered the problems as lack of time, restricting hospital policies, and lack of interest (55).

Johnson (56) studied the entry-level clinical nutrition specialist from the viewpoints of clients (consumers), dietetic practitioners (educators), and hospital administrators (employers). Two hundred and forty lay members of the Central Ohio Diabetes Association were selected to represent the

client group and were sent a Client Perception Questionnaire to identify clinical activities that the client found helpful. One hundred forty-three hospital administrators who had advertised for entry-level dietitians in the Journal of The American Dietetic Association represented the employers. Three hundred and three educators and 386 practitioners were sent the Professional Perception Questionnaire to study the important activities in clinical dietetics. The clients and professionals agreed that the planning, teaching, and counseling functions should be the primary focus of nutritional care. The importance the dietitian placed on activities affected the time they spent in that activity (56).

Spangler (57) studied the present and ideal role of hospital dietitians as perceived by various members of the health team. Their functions were viewed differently by administrators, chiefs of staff, directors of nursing, directors of dietetics, and staff dietitians. Administrators were the most optimistic and physicians the least. The dietitians believed that they should perform patient-oriented activities and not kitchen operations. They believed their duties should include: attending ward rounds, prescribing special diets, attending medical conferences, following patients on special diets after release from the hospital, making decisions on the health team, preparing dietary histories, writing the diet manual, charting dietary progress, writing special diets, and consulting with physicians. The dietitians rated themselves as highly proficient in knowledge of obtaining diet histories by interviews, nutrient recommendations, food attitudes, food intake, technical operations of the kitchen, food standards, and food composition (57).

Even though in half of the hospitals in Spangler's (57) study, dietitians had little influence over the food that was served, physicians

associated the "ideal" dietitian with the quality of food produced. Dietitians believed that supervision of food preparation and tallies of diet food were not consistent with the ideal functions of a dietitian. The chiefs of staffs believed that dietitians should put more emphasis on supervision of food preparation and tray service, recording dietary progress, and preparing dietary histories. Competencies rated most important for the "ideal" dietitian were knowledge of food composition, ability to make nutrient recommendations, awareness of health team goals, understanding of food processing effects, and skill in achieving patients' satisfaction and in communication. These are more food production-related responsibilities than patient-related duties. The higher level competencies, such as the ability to alter food intake on the basis of abnormal physiologic data and drug administration were rated very low by the physicians. Spangler concluded that the reluctance of chiefs of staff to let dietitians participate in decision-making could reflect their reluctance to relinquish authority or their lack of information on the potential contribution of dietitians (57).

Dietetic Education

Academic Requirements

Traditionally, dietetic education was divided into three related phases--undergraduate preparation, internship and/or graduate study, and continuing education for professionals (58). One learned the basic principles as an undergraduate; learned to apply the knowledge and skills during internship; and added to this knowledge with continuing education (59). Dietitian's training was composed of both classroom instruction and hospital internship, neither of which was complete without the other (60).

Today many programs are combining the clinical experience with the didactic work in coordinated undergraduate programs (60,61).

Membership in ADA usually is gained by completing a four-year baccalaureate program that meets academic requirements and an internship, by completing a baccalaureate program that combines the clinical with the didactic experience in the undergraduate coordinated programs, by completing a master's degree with six months professional supervised work experience, or by a twelve to twenty-four month individualized traineeship (62).

Changes in education for the dietitian have paralleled growth and changes in the profession. The academic requirements have been revised as the need became apparent. Each revision has introduced more depth and diversity into the academic patterns (59). Corbett (63) proposed a list of thirty-eight courses for the technical training of the dietitian as early as 1910. Marlatt (64) presented an A, B, and C standard in 1925 for hospitals' use in evaluation of students' undergraduate course work. To meet the requirements for A class, 50 per cent of the work was to be in liberal education, 20 per cent in general sciences to provide the foundation for specialized courses, and 30 per cent in home economics with classes in institutional management, nutrition and dietetics, foods, textiles, housing, and sanitation.

The ADA approved a revision of this plan "Outline for Standard Course for Student Dietitians in Hospitals" in 1927 (65). A minimum age of twenty-one years and a baccalaureate degree with a major in foods and nutrition were required. Also, the guidance of a dietitian who had gained full status as a department head in the hospital administration was required. Since many dietitians at that time were in charge of only

therapeutic diets, this provision helped dietitians gain greater prestige and a wider range of duties. Standards specified that the six-month training course must include information on administrative practice, diet therapy, theory of teaching dietetics to student nurses, and optional duties in social service, medical clinic, and metabolic ward. The ADA inspected the hospital courses to improve and develop uniformity and to insure higher standards of academic training (66).

It was considered essential to set a minimum standard for membership to insure that future dietitians would have this training and to provide employers a means of evaluating prospective dietitians (66). Plan II was accepted in 1944 (67) and included a list of required courses in chemistry, biology, social sciences, education, foods, nutrition and dietetics, and institution economics, supplemented with additional "recommended" courses in the same subject areas. A completely different format was accepted with the implementation of Plan III in 1958 (68,69). The academic requirements included twenty-two hours of a science core and a choice among three emphases and three concentrations. This plan provided for a greater opportunity for specializing in management, therapeutic nutrition, or education. Concentration A offered the best background for a "generalist," stressing nutrition, personnel management, and principles of learning. Concentration B placed greater emphasis on business with classes in equipment, personnel, accounting, purchasing, and food production. Food science and nutrition were the focus of Concentration C. It was assumed that the varying patterns a person could take would provide appropriate means for those in college teaching, extension, community nutrition, public health, research, and other specialties to become members of ADA (59).

In 1967, the Academic Requirements Committee of ADA (70) proposed that the academic requirements for membership be placed under continuous review to assure they were relevant. A tentative proposal for academic requirements was made that did not utilize the emphasis-concentration structure.

The 1972 Millis report (22) on the dietetics profession purported that the education and training of dietitians was deficient in several ways: (a) the amount and quality of nutrition was inadequate to provide a base for the profession; behavioral and social sciences were also weak areas; (b) education would be more effective if students could apply their knowledge while they were learning; (c) great variation in the quality of instruction existed; and (d) dietetics was not sufficiently related to the education of other health sciences. The Commission recommended that the undergraduate curriculum be built on the central theme of the human life cycle.

In evaluating the report, the Foodservice Systems Management Education Council (71) maintained that the report gave a restricted view of the dietetics profession and the education for dietitians. The Council argued that more emphasis should be placed on the administrative dietitian and that management, food, and nutrition are basic to the profession as it seeks to achieve the goal of providing nutritional services.

Plan IV (72) which was implemented in July, 1972, offers more depth in nutrition and foods, the behavioral, social, and communication sciences than Plan III and provides for specialization. The Plan IV minimum academic requirements for membership in the ADA include basic requirements and four areas of specialization (general dietetics, management, clinical dietetics, or community nutrition). Education, research, and consultation are considered inherent in each of the categories and so are not designated

as areas of specialization. Basic requirements for all dietitians, regardless of specialty, include subject matter areas in physical and biological sciences, behavioral and social sciences, professional sciences, and communication sciences. For more flexibility and innovation in academic programs, the requirements are expressed in terms of basic competencies and knowledge areas rather than credit hours and courses (72).

Education of Dietitians

Even though ADA has been criticized as being too conservative and over-exacting in their standards for students, West (73) argued that the profession will never rise above the standards established and maintained by dietitians and that dietitians' educational background and training must be the best that can be provided. In-depth knowledge of subject matter is essential for proficiency in dietetics (74). Mayer (75) asked how the profession can be educating both specialists and generalists and questioned whether it is possible to have expertise in both administrative and therapeutic dietetics. A position paper in 1971 (76) stated that only by restricting the scope of individual pursuit to a single area of specialty can true proficiency be acquired.

Four speciality areas have been defined: general practice, administration, clinical nutrition, and nutrition education (76). Further subspecializations in each of these areas is possible; e.g., in administration, employee education, and training, data processing, facility planning, consultation, purchasing, food production, and research. In the clinical area, subspecialities include research, patient education, either as a private consultant or in the clinics of health agencies, and consulting and teaching services for other health professions (77).

Knowledge of principles of nutrition, communication skill, conceptual thinking, understanding of administration, and research orientation have been identified as common to all practitioners (76). The effective management of resources--physical facilities, finances, and people--as an important component of nutritional care was a requisite stated in the lifetime goals for the education of the dietitian (23). Also, the profession has asserted that all dietitians will need to understand the nutritional needs of human beings, factors related to food choices, and educational psychology. Thus, as Johnson (77) indicated, the differentiation of dietitians is not in their basic knowledge but in the additional knowledge and skill needed for a specific type of work.

Wilson (60) advocated that the education for the specialty areas should be distinct from the beginning of the program. The dietitian should further develop her expertise in her selected area through continued education.

As early as 1910, Corbett (63) listed five needs in educating the dietitian. The first was a liberal education for the breadth it gives; this should insure the second need, an understanding of and sympathy with others. She believed the third need, that of executive ability, could not be produced by a school, but could be developed if the student had a degree of native ability. Corbett also included needs for expert grounding in household management and business knowledge. She explained that if students had no native talent, it was futile to encourage them to become dietitians.

Studies Relating to Dietetic Education

Beal and Newton (78) studied seventy-three dietetic interns from five different internships to explore the motives of dietetic students. Dietetics was chosen primarily as an alternative to other fields; often because one did not want to teach. Over three-fourths had an interest in food. Other common reasons for choosing a dietetics career were knowing other dietitians, mother's friends were dietitians, or the fact that they worked in a hospital one summer and came in contact with a dietitian. Reasons for choice of internship included such varied motivations as climate, geographical area, starting date, reputation of internship, family, and the fact that it was either close to or far away from home. The majority thought their college preparation had been good and that college courses in nutrition, chemistry, and diet therapy had helped them the most in their internship. They were not sure what their internships would be like or what a practicing dietitian did, but generally believed it to be less routine and less desk-oriented than it was. They indicated that more practical experience in college would have helped in making the adjustment to hospital milieu and in decreasing anxiety. The major job functions of dietitians as seen by the interns were writing diets, supervising tray line, adjusting diets to patient's likes and dislikes, visiting and instructing patients, training and hiring personnel, and food ordering. Very few wanted to specialize and the majority expressed a need for more general background (78).

Sanford (79) reported on 1965-67 graduates of hospital internships to present a picture of their administrative experiences. Intern graduates were asked the degree that administrative elements were perceived as part of their first position in hospital dietetics. Fifty-nine specific

elements that were considered to represent some of the dietitian's duties and responsibilities were grouped under fourteen subject headings. Respondents were asked to consider the importance of each task, the frequency of performance, and if it were a shared or sole responsibility in their first position. A second section studied the adequacy of internship preparation. Statements of learning experiences were developed from research reports for administrative areas that were in need of strengthening or those for which it was difficult to provide appropriate learning experiences (79).

Approximately 88 per cent of the 561 respondents were employed in hospital dietetics, of which almost two-thirds were therapeutic dietitians. Administrative dietitians composed 14.5 per cent of the sample. Ninety-four per cent of the respondents had held at least one full-time position since graduation; almost one-fourth had held three or more positions. Reasons for choosing their first position included: (a) major interest; (b) only position available in location; (c) believed background was weak in this area; (d) best qualified for this type of position (79).

The elements formed a part of at least 16 per cent of the graduates' first position. In rating the adequacy of their internship preparation, the mean ratings were adequate or well prepared for thirty-two of the fifty-nine elements. Over 25 per cent rated their preparation less than adequate for thirty-seven of the elements, which primarily included those that require conceptual and human skills. At least 50 per cent indicated that their internship preparation was less than adequate for eleven of the elements (79).

The fourteen groups arranged in order of the significance from highest to lowest included: sanitation and safety, educational programs and

personnel management, departmental organization and management, menu planning, food distribution and service, equipment operation and maintenance, methods improvement, food production, receipt, storage, and control of food supplies, research, space design and equipment selection, food purchasing, and financial management. The administrative dietitians considered all but three groups (education, menu planning and research) more a part of their first position than either therapeutic or generalist dietitians (79).

A report by Peyton (80) of 1971 graduates of hospital internships concluded that the internship prepares the graduates for their first job. The length of internship did not greatly affect preparedness of the graduate. Overall, the graduates expressed more confidence in duties such as scheduling of employees, establishing standards (safety, sanitation, and recipes), purchasing food and supplies, menu-writing and nutritional care, working in specialty services such as metabolic and geriatric wards, and in community nutrition programs. Areas in which they perceived their preparation was poor included employee interviewing, financial management, establishing inventory standards, and writing articles for publication.

In the late 1950's, Moore (81) studied the attitudes of recent graduates toward their educational preparation for their first position. Three-fourths of the graduates were employed in foodservice positions. The majority were employed in hospitals; the next largest group, in colleges. Their responsibilities included supervision of food production and service, menu planning, sanitation, and diet therapy. Although the graduates were fairly satisfied, personnel administration and cost control were the areas that were criticized more frequently than any other. When asked to evaluate their internships, many of the respondents rated them very valuable and

believed their education would have been incomplete without the experience (81).

Miller (82) evaluated the academic preparation for foodservice management from the viewpoint of 1951-56 Michigan State University graduates, educators, and employers in four areas of administration (hospitals, restaurants, college and university, and school lunch). Close correlation was found between the inadequacies expressed by graduates and employers. Miller concluded more competence was needed in the managerial areas of personnel management, labor regulations, insurance, government regulations, and operational controls. Inadequacies reported in the technical areas included the purchasing of meats, produce, supplies and equipment; techniques pertaining to hospital tray service and specialized catering; and factors which affect the preparation and service of quality of food. The educators in the study believed more work was needed in the areas of organizational methods and practices, communication skills, and personnel administration. Educators indicated that the graduate could accept a limited amount of managerial responsibility but needed additional supervised work experience before assuming total responsibility (82).

Downey (83) questioned 333 dietary department directors and sixty-five internship directors concerning the effectiveness of training in the administrative phase of the hospital internship. They agreed that more emphasis in the areas of personnel management and administration was needed. Other areas that were mentioned as both weaknesses and strengths were use of equipment, teaching, cost control, food production, and service.

Parker (84) developed a method of classifying duties of dietitians. Five experienced dietitians were asked to express their opinion of fifty-eight duties concerning: classification of the duties as executive or

scientific, degree of difficulty encountered in accomplishing each duty, degree of proficiency expected on first jobs, and which phase of training should provide learning experiences. The general implication was that a dietitian is an executive who performs some duties that require a scientific background and that the internship should provide training for most of the duties (84).

Duties rated as having the highest degree of performance difficulty included preparing departmental budgets, determining number of positions needed to operate organization, writing equipment specifications, purchasing equipment, developing equipment, maintenance, and inventory programs, constructing work-flow charts, directing cost control systems, and establishing quality food standards. Those duties rated as requiring the most supervision included establishing performance rating plans for evaluation of employee effectiveness, directing cost control systems, and teaching student nurses (84).

Using a modified nominal group process, followed with the Delphi Technique, Matthews et al. (85) asked practitioners, faculty, and students in Wisconsin to identify the nineteen professional activities of an administrative dietitian in an entry-level position and to describe the level of ability expected for the performance of these activities. The highest consensus for abilities and knowledge included the areas of communication, problem-solving, evaluation, decision-making, and sanitation.

Galster (86) proposed 161 criteria for consideration in planning curriculum for institutional management or in evaluating performance of duties by dietitians. The criteria could be used for long-range goals in education, and to evaluate performance of duties.

Daza (87) analyzed the required courses in institutional management at Cornell University in relation to the duties of the hospital dietitian. Courses were found to be inadequate in menu planning, food purchasing, supervising and training of employees, human relations, personnel management, production, record keeping, and cost control.

From the management functions of planning, organizing, coordinating, motivating and controlling, Mongeon (88) formulated competences and content areas essential for understanding hospital dietary administration. Thirty-five internship directors and sixty-four educators rated adequacy of student preparation and where emphasis should be placed. The directors were more critical of the student's preparation than the faculty members, finding inadequacies in ten of the forty content areas. Most of these areas were concerned with personnel management.

Studies Relating to Competencies in Dietetics

In one study related to competencies for dietitians, Tate (12) examined the competencies needed by faculties in hospital internship programs and the relationship of motivational factors to continuing education. The study was divided into five parts: (a) background information, (b) ranking of the three most important and three least important factors for participation in continuing education; (c) level of importance of each of the twenty-four competencies; (d) the amount of time the respondent believed should be allocated to each competency--up to a total of seventy-five clock hours; and (e) their preference of program design for continuing education. The highest rated competency was keeping up-to-date on therapeutic nutrition. Other competencies that were believed to be highly important included: understands motivation, culture, and society; has

insight into young professionals; aware of new food products and production; uses normal nutrition for preventive health services; integrates clinical experiences with didactic; understands teamwork; integrates administrative concepts and theories; possesses skill in using problem solving; understands trends on delivery of health care; understands conflict theory, recent legislation, and social change; has insight into personnel management; and possesses skill in using teaching methods (12).

Bedford (89) sought to develop a set of affective competencies and their associated behaviors appropriate for the entry-level dietitian. They were stated in measurable terms for the future development of methods to evaluate these competencies. The study consisted of three stages. Using the Delphi Technique, nineteen dietitians generated ideas in the first stage which evolved through four phases into statements in the affective domain. In the second stage, a panel of dietitians identified overt behaviors for the entry-level dietitian and expressed these in measurable terms. The third stage involved thirteen members of the Delphi panel. The behaviors from the second stage were combined with the affective competency statements to identify behaviors that would be appropriate for each statement. These were to be translated into performance expectations for the beginning practitioner. The panel related behaviors to five competency categories--human, technical, conceptual, personal, and professional. A consensus of the experts resulted in a list of forty-one affective competencies (89).

Competency Based Education

Competency based education is a total educational philosophy. Bailey (90) defined competencies as those particular understandings, skills,

behaviors, and attitudes believed to facilitate the intellectual, social, emotional, and physical growth of the individual. He indicated that competencies usually can be classed in one of three intellectual domains (a) cognitive--concerned with knowledge and information, (b) affective--concerned with attitudes and feelings, and (c) psychomotor--concerned with skills and performance. In stating competencies to be acquired and demonstrated by students, one needs to state the knowledge (cognitive behavior), attitudes (affective behaviors), and psychomotor behaviors the student needs at the end of the learning experience (91-93).

Gale and Pol (94) defined competence as related to performance--the quality of being functionally adequate in performing the tasks and assuming the role of a specified position with the requisite knowledge, ability, capability, skill, judgment, attitudes, and values. They described the components of competence as: requisite knowledge, ability, capability, skill, judgment, attitudes, and values. The degree of competence is directly related to, and dependent upon, the level of proficiency which is an index of accomplishment. From the statements describing competence, it is possible to derive instructional goals and more specific objectives. These objectives, in turn, can be used to develop the content and methods to help students acquire and be able to apply knowledge and skills that are required by the nature of the position.

Each objective must possess three components: (a) the situation, (b) the behavioral term, and (c) the criterion or acceptable performance level. The situation explains the conditions that will be present when the student performs the behavior to be assessed. The performance must be measurable to indicate the degree to which the student has achieved the objective. The behavior expresses the type of task required of the

student. The level of performance is different for each person, depending on his potential and experiences. Therefore, the minimum level of performance that is acceptable should be specified (95-97).

In a competency based educational program, objectives or performance goals are agreed to and specified in advance of the instruction. The student must demonstrate ability of the objective and is held accountable, not for passing grades as in the traditional manner, but for attaining a given level of competency in performing the essential tasks. Each student is evaluated on the basis of performance in relation to established criterion or performance standard, not on a comparison with other students. The student is fully aware of performance expectations. Competency-based education insures that each student can master the specified competencies (90,97).

METHODOLOGY

Development of Competencies for the Entry-level Generalist Dietitian

As stated in the introduction, this research was undertaken to study practicing hospital dietitians' perceptions of the necessary competencies for the entry-level generalist dietitian and the degree of supervision needed for performance of each competency. The first priority of the Dietetic Internship Council (DIC) for 1971-1972 was the identification of competencies for the entry-level dietitian (3,4).

As indicated in a preceding section, Cagguila was commissioned by ADA in 1972 to develop the competencies for the entry-level generalist (7). She surveyed literature on the profession and on competencies that had been developed by other groups. The first draft was distributed at the 1973 DIC regional meeting. Feedback from the questionnaires was used as input for further development of the statements. The revised document was distributed at the February, 1974, DIC meeting and was mailed to college and university faculty in March, 1974 (11). The competencies were defined as those required in the administrative and clinical areas for generalist practice. In August, 1974, questionnaires to evaluate the competencies were sent to directors of internship programs and of coordinated undergraduate programs and to college and university faculty (98). Although the questionnaire was somewhat limited; feedback gave valuable suggestions for future development of the competencies.

An ADA ad hoc committee (98) in June, 1974, discussed progress of the competency development project. The committee, composed of several ADA headquarters staff, dietetic educators, and a consultant decided that the

statements did not need validation at that time, since they were constructed in the early stages with input from the DIC. The committee concluded that because the statements were so general, they could be used as guidelines, a checklist, and self-assessment. It also was concluded that adding more specificity would eliminate the flexibility which was needed for the statements to be implemented on a nation-wide basis. Although the affective domain was not included in these statements, the educational consultant believed they could be added as the competencies were developed further (98).

Limitation of the Study

This study was limited to practicing hospital dietitians, since this category comprises the largest segment of dietitians (Table 1). Within the group of hospital dietitians, those employed in administrative, clinical, and generalist positions were included; the more specialized categories, such as teaching and research, were omitted. As of November, 1974, the total membership in ADA was 25,631; the number of employed dietitians was 20,466, of which 51.2 per cent were hospital dietitians (9).

Development of the Instrument

A pretest instrument (Appendix B) was developed using Cagguila's document (Appendix A). Instruments were distributed to nineteen hospital dietitians. Both the administrative and clinical competencies were evaluated by each respondent; their reactions were rated on four scales for each competency: (a) essentiality for the entry-level dietitian, (b) degree of supervision, (c) essentiality for the experienced dietitian,

Table 1: Place of employment of ADA members (9)

description	employed dietitians	
	N	%
hospital	10,477	51.2
health care facility	1,751	8.5
college or university	1,958	9.6
commercial or industrial	480	2.3
government agency	594	2.9
school	1,028	5.0
public health agency	840	4.1
self-employed	647	3.2
more than one place	978	4.8
outside of dietetics	447	2.2
other	<u>1,266</u>	<u>6.2</u>
total	20,466	100.0

and (d) performance evaluation of the competency. The objective of scale (a) was to explain which competencies were the most essential for the entry-level dietitian in a first position. Scale (b) was concerned with the degree of supervision the beginning dietitian would need to perform each competency effectively. Scale (c) was used to determine if the statements were actually a valid competency for experienced dietitians and to contrast practice at the entry and at the advanced levels. Scale (d) indicated the degree of difficulty in evaluating the performance of the competency. The instrument was divided into two parts: (a) administrative practice and (b) clinical practice. Comments of respondents in the pretest indicated they believed that the questionnaire was too lengthy and that the wording included too much "academic jargon."

In the implemented form, minor revisions were made in several of the competency statements in an attempt to eliminate jargon and to shorten some

statements. Also, the statements were rearranged to group similar functions. In the instructions for completing the questionnaire, the respondents were cautioned to note the difference in the meanings of the statements; e.g., one dealt with development (such as "develops long and short range departmental goals and objectives") while the emphasis of another statement was on the implementation (such as "orientation of new administrative personnel"). Scales (c) and (d) were eliminated on the final form to shorten the instrument. It was believed scales (a) and (b) were the most relevant to the objective of the study. The scales on the final instrument for evaluation of each competency statement were:

(a) essentiality for the entry-level dietitian

- 1 - could not expect of the entry-level dietitian
- 2 - desirable, but not essential for the entry-level dietitian
- 3 - essential for the entry-level dietitian

(b) degree of supervision

- 0 - not expected of the entry-level dietitian
- 1 - could perform with close supervision
- 2 - could perform with general supervision
- 3 - could perform with little or no supervision

The final instrument was printed on two forms: a gold form for administrative practice with forty-seven competency statements (Appendix C) and a blue form for clinical practice with thirty-five competency statements (Appendix D). Demographic data were the same on both forms and included information specifying area of residence, educational background, qualifying experience for ADA membership, number of years member of ADA and of the dietetic profession, number of years employed in present position, job position, size of hospital, and the number of dietitians on the staff.

Selection of Sample

The population from which the samples were drawn for distribution of the research instruments was a segment of the ADA membership living in the continental United States. The study was limited to practicing hospital dietitians classified in three specialties: clinical, administration, and general. Names and addresses of the population were obtained from a computer listing secured from the ADA headquarters of these three categories of ADA membership as of January, 1975. The roster totaled 8,799 names; 317 were eliminated because their addresses were outside the continental United States. The population included 4,488 clinical dietitians, 1,913 administrative dietitians, and 2,081 generalists. Four random samples of 200 dietitians were drawn from the population: one from administrative dietitians (identified by ADA code, 06) and one from clinical dietitians (identified by ADA code, 03). Two separate samples were drawn from the generalists (identified by ADA code, 04). An assumption was made that the ADA code numbers designated by each member indicated job classification. The intent was to assess the perceptions of and gain input from both specialists and generalists employed in the profession.

Distribution of the Research Instrument

The administrative form was sent to the random sample of administrative dietitians and to one of the samples of generalist dietitians; the clinical form was sent to the second sample of generalists in addition to the sample of clinical dietitians. Enclosed with each instrument were a cover letter explaining the study and an information sheet with definitions and basic assumptions concerning the entry-level position (Appendix E).

The descriptive material provided with the original document (Appendix A) was condensed into the one-page definition sheet. A self-addressed envelope with prepaid postage to facilitate return of the questionnaire also was included in the mailing. Three weeks after the initial mailing, a follow-up letter (Appendix E) and another form and definition sheet were sent to nonrespondents.

Data Analysis

Data from the returned instruments were coded, key punched on 80-column computer cards, and analyzed. Categories were established for several of the biographical factors which were open-ended questions (Appendix F).

Factor analysis was used for its data-reduction capability to see if underlying patterns of relationships existed (99). The initial factor matrix was rotated according to the varimax criterion to simplify the factor structure. Items which possessed a loading of .30 or greater on a factor were regarded as contributing significantly to the composition of a factor (100).

Essentiality and degree of supervision scores were computed for each statement (1, could not expect to 3, essential; 1, close supervision to 3, little or no supervision required). Competency was rated as essential for entry-level if the mean essentiality score was 2.50 or higher; desirable, but not essential if the mean score was 2.01 to 2.49; and of questionable relevance for the entry-level dietitian if the mean was below 2.00. Rank order correlation coefficients were computed between the essentiality and degree of supervision scores (101). Frequency distributions were compiled for the biographical items and for responses to each of the competency statements.

Analyses of variance were used to study relationships of several of the biographical factors to mean scores on the two scales for the competency statements; section of the country, years respondent had been member of ADA, years employed in the profession, years in present position, job position, bed size of hospital, and number of dietitians on the staff (99).

RESULTS AND DISCUSSION

Description of the Sample

Table 2 details responses to the survey; 270 administrative (67.5%) and 286 clinical (71.5%) instruments were returned. Several were returned after data analysis had begun or were completed incorrectly. A total of 258 administrative and 267 clinical forms were used in the analysis. As shown in Table 2 the resulting samples from the four populations were similar in size.

All geographic areas of the United States were represented (Table 3). A larger proportion of the respondents lived in the midwest than in other geographic regions. The length of membership in ADA tended to be longer among those responding to the administrative form than those answering the clinical form. Thirty-eight per cent of the administrative sample had been members of ADA over twenty years while only 22 per cent of the clinical sample had been members that long. The largest percentage of the clinical sample had been members from two to five years. Perhaps this indicates that new graduates tend to enter the profession in clinical positions more often than in administrative ones and then move into administration as they gain experience.

The majority of the respondents gained membership in ADA through the internship route (administrative, 77.9%; clinical, 82.8%). These statistics are similar to the percentage in ADA (9) who had gained membership through internships (76.8%). Preplanned-supervised experience was the second largest category among ADA members, as was true in this study.

Approximately 21 per cent of the sample have earned master's degrees; whereas, in 1974 24 per cent of all ADA dietitians held master's degrees

Table 2: Responses to survey instruments

	instruments distributed					
	initial		follow-up		total	
	N	%	N	% ¹	N	%
administrative form						
administrative dietitians						
mailed	200		116			
responses	84	42.0	53	45.7	137	68.5
usable ²					132	
generalist dietitians						
mailed	200		133			
responses	67	33.5	66	49.6	133	66.5
usable					126	
total	151	37.8	119	47.8	270	67.5
clinical form						
clinical dietitians						
mailed	200		101			
responses	99	49.5	46	45.5	145	72.5
usable					137	
generalist dietitians						
mailed	200		118			
responses	82	41.0	59	50.0	141	70.5
usable					130	
total	181	45.3	105	47.9	286	71.5

¹Percentage of follow-up letters mailed.

²Several instruments were returned after data analysis had begun or were completed incorrectly.

Table 3: Characteristics of study sample

biographical information	administrative sample ¹ (N=258)		clinical sample (N=267)	
	N	%	N	%
ADA position code				
specialist (administrative or clinical)	132	51.2	137	50.5
generalist	126	48.8	130	49.5
area of country				
northeast	51	19.8	68	25.5
southeast	49	19.1	48	18.0
middle west	91	35.4	77	28.8
southwest	30	11.7	34	12.7
west	36	14.0	40	15.0
years member of ADA				
1 year or less	4	1.5	9	3.4
2 to 5 years	38	14.7	91	34.0
6 to 10 years	56	21.7	48	18.0
11 to 20 years	62	24.1	60	22.5
over 20 years	98	38.0	59	22.1
membership in ADA				
coordinated undergraduate program	2	0.8	4	1.5
internship	201	77.9	221	82.8
traineeship	3	1.2	3	1.1
work experience or pre-planned experience	45	17.4	31	11.6
advanced degree	7	2.7	8	3.0
highest degree				
bachelor's	208	80.6	212	79.4
master's	50	19.4	55	20.6
major field for bachelor's				
dietetics	60	23.3	62	23.6
institutional management	50	19.4	37	14.0
foods and nutrition	111	43.0	132	50.2
home economics	21	8.1	20	7.6
education	5	1.9	10	3.8

¹All respondents did not provide complete information. Percentages reflect ratios of respondents on each item.

Table 3: (cont.)

biographical information	administrative sample (N=258)		clinical sample (N=267)	
	N	%	N	%
major field for bachelor's (cont.)				
science	10	3.9	2	0.8
community nutrition	1	0.4		
major field for master's				
dietetics	6	12.0	4	7.3
institutional management	9	18.0	5	9.1
foods and nutrition	21	42.0	17	30.9
home economics	0	0.0	2	3.6
education	11	22.0	16	29.1
science	1	2.0	1	1.8
community nutrition	1	2.0	7	12.7
other	1	2.0	3	5.5
length in profession				
less than 5 years	31	12.0	91	34.2
5 to 10 years	63	24.4	65	24.4
11 to 25 years	109	42.3	89	33.5
over 25 years	55	21.3	21	7.9
job classification				
director of department	113	43.8	29	10.9
head administrative	33	12.8	12	4.5
head clinical	16	6.2	48	18.0
administrative staff	13	5.0	7	2.6
clinical staff	7	2.8	77	28.8
generalist	47	18.2	49	18.4
other	16	6.2	30	11.2
retired or homemaker	13	5.0	15	5.6
years in present position				
1 year or less	36	14.5	61	23.9
2 to 5 years	94	37.9	119	46.7
6 to 10 years	56	22.6	43	16.9
11 or more years	62	25.0	32	12.5
size of hospital				
under 100 beds	27	10.4	21	7.9
101 to 300 beds	84	32.6	91	34.0
301 to 500 beds	59	22.9	67	25.1
over 500 beds	75	29.1	67	25.1
not employed in hospital	13	5.0	21	7.9

Table 3: (cont.)

biographical information	administrative sample (N=258)		clinical sample (N=267)	
	N	%	N	%
number of dietitians on staff				
one dietitian	58	23.4	56	22.4
two dietitians	32	12.9	39	15.5
three to four dietitians	45	18.1	42	16.7
five to nine dietitians	69	27.8	72	28.7
over ten dietitians	44	17.8	42	16.7

(9). More respondents majored in foods and nutrition than in any other area at both the undergraduate and graduate levels. Twenty-three per cent of both samples majored in dietetics in their bachelor's programs. At the master's level, the majority of participants majored in foods and nutrition; however, almost as many received degrees in education in the clinical sample.

The largest number of dietitians in the administrative sample were classified as directors of departments (43.8%). However, additional analyses indicated approximately 30 per cent of the directors were the only dietitian on the staff. Type of position in the clinical sample was fairly evenly distributed among the categories; the majority were in clinical staff positions (28.8%). More than 50 per cent of the respondents had been in their present position five years or less.

The majority of dietitians were employed in hospitals of 101 to 300 beds. Approximately 20 per cent held positions as the only dietitian on the staff; while over 60 per cent of the respondents were employed in institutions with staffs of three or more dietitians.

Factor Analysis

The factor analysis of each of the research instruments resulted in one general factor interpreted as, "General competence and versatility" and a series of bipolar factors suggesting alternative types of strengths or emphases (Table 4). On the administrative form, forty-six of the forty-seven items loaded on Factor I; whereas, all thirty-five items loaded on Factor I on the clinical form. This can be inferred that respondents appeared to agree that almost all competencies were relevant; but their own situations or biases differed enough that certain secondary emphases were

Table 4: Factor analysis of competency statements

administrative competencies (47 items)		
factor	no. of items ¹	% of variance ²
I. General competence and versatility	46	25.7
II. Planning and policy determination vs. operational response	13	6.5
III. Personnel administration vs. management practice	7	4.9
IV. Administrative leadership vs. systems design	7	4.5
V. Administrative responsibilities vs. personnel administration	7	3.8
VI. Labor relations vs. evaluation	4	3.2
VII. System coordination	3	3.1
VIII. Client concern vs. operational functions	3	2.9
IX. Management tools	4	2.6
X. Professional education	1	2.5
		<u>59.7</u>
clinical competencies (35 items)		
factor	no. of items	% of variance
I. General competence and versatility	35	25.7
II. Clinical activities vs. personnel administration	13	8.5
III. Personnel administration vs. innovative programming	12	6.2
IV. General practice vs. nutritional planning	6	5.3
V. Community involvement vs. administrative leadership	5	3.9
VI. Needs assessment vs. implementation support	6	3.7
VII. Evaluation vs. team participation	2	3.1
VIII. Objective monitoring vs. individual interaction	3	3.0
		<u>59.3</u>

¹ Number of items loading on factor.

² % of overall variance accounted for by each factor.

identified by the bipolar factors. The ten factors identified from the administrative data accounted for 59.7 per cent of the total variance; the eight clinical factors, 59.3 per cent. Appendix G lists the competencies comprising each factor and the factor loadings.

Essential Competencies for the Entry-level Generalist Dietitian

Data from the essentiality ratings were analyzed to delineate those identified as most essential, desirable, and those of questionable relevance at entry-level. As a secondary analysis, degree of supervision ratings were evaluated in relation to essentiality scores.

Essential competencies for the entry-level dietitian were defined as those with means above 2.50 on a three-point scale (1, not expected to 3, essential). The 2.5 rating represented a mid-point between the "desirable" and "essential" points on the scale. Competencies rated 2.01 to 2.49 were considered as desirable but not essential and those 2.0 and lower, as beyond expectations for entry-level competency.

The essential competencies also were examined in relation to Katz's (2) model of the skill demands at various organizational levels. Adapting this model to the role of the dietitian, a position paper on the profession identified the performance of the entry-level dietitian as focusing on technical skills within an established frame of reference of institutional policies and procedures. At this level, the dietitian should be knowledgeable about the current theories of motivation and should utilize this knowledge in the further development of human skills. Since the first level of management provides the greatest number of human interactions, there is ample opportunity to test human skills and, with appropriate

counseling, to improve these skills. The entry level administrative dietitian also should have an understanding of the conceptual skills required at the higher levels of management and should be given the opportunity to develop competence in these skills (102).

Essential Administrative Competencies

Table 5 details essentiality and degree of supervision mean scores for each administrative competency statement. Competencies are arranged from the most essential to the least essential. Twenty-three of the forty-seven competencies were considered "essential"; eighteen, "desirable"; and six were rated as beyond entry-level. Percentage distributions are included on Table 10 in Appendix G.

Technical competencies essential for the beginning dietitian included: "monitors receiving, storage, and sanitation," "uses menu planning principles," "monitors production and service," "analyzes and modifies menus," "incorporates individual requirements into menus," "plans sanitation schedules," "develops standardized recipes," "prepares reports," "implements policies and procedures," "plans food production," "coordinates labor and equipment," "uses effective merchandising techniques," "considers resources in menu planning," and "obtains training materials." Competencies based on human skills included: "provides motivational environment," "maintains effective communication," "supervises personnel effectively," "delegates," "uses performance appraisal," "plans orientation and inservice training." Only a few competencies rated essential could be classified as conceptual skills: "identifies and analyzes problems," "maintains current knowledge," and "evaluates client acceptance."

Table 5: Essentiality and degree of supervision for entry-level administrative competencies¹

item number	essential competencies for the entry-level dietitian (mean 2.50 to 3.0) ²	essentiality ³		degree of supervision ⁴	
		mean	s.d.	mean	s.d.
30.	encourages and motivates personnel to provide optimal food service by example and adequate reinforcement	2.85	± .39	2.52	± .65
35c.	maintains quality and quantity controls through routine monitoring of receiving, storage, and sanitation procedures	2.85	± .39	2.52	± .63
13a.	plans menus which incorporate principles of good menu planning, i.e. adequate nutritional content, color, texture, shape, and variety	2.85	± .41	2.35	± .67
35a.	maintains quality and quantity controls through routine monitoring of food items produced and served	2.84	± .43	2.49	± .63
29.	maintains effective communication with personnel through regular conferences and meetings	2.75	± .53	2.39	± .68
14.	analyzes menu as to nutritional content, cost, and client acceptance, and modifies menu where result of analysis indicate it is necessary to do so	2.73	± .52	2.25	± .69

¹N varies from 250 to 258.

²Competency statements are ordered from most to least essential.

³Essentiality scale
 1 = could not expect
 2 = desirable, but not essential
 3 = essential

⁴Degree of supervision
 0 = not expected at entry-level
 1 = close supervision
 2 = general supervision
 3 = little or no supervision
 (0 omitted in computation of supervision score.)

Table 5: (cont.)

item number	essential competencies for the entry-level dietitian (mean 2.50 to 3.0)	essentiality mean s.d.	degree of supervision mean s.d.
13b.	plans menus which incorporate special nutritional and/or taste requirements of individuals or groups within the institution or program	2.72 ± .55	2.28 ± .69
35b.	maintains quality and quantity controls through consistent supervision of personnel and the identification of factors which influence the productivity and performance of personnel	2.71 ± .55	2.26 ± .70
26.	plans sanitation schedules and procedures that conform to state and local regulations	2.70 ± .52	2.30 ± .70
16.	develops standardized recipes to provide a consistent basis for quality and quantity control	2.64 ± .58	2.24 ± .74
22.	routinely prepares accurate and appropriate reports	2.64 ± .58	2.18 ± .74
38.	identifies and analyzes problems related to area	2.63 ± .56	2.05 ± .72
8.	implements policies and procedures in appropriate areas	2.63 ± .56	1.97 ± .70
28.	delegates appropriate functions (example: daily food production planning, daily supervision of personnel or daily supervision of tray service) to supervisory personnel such as the foodservice supervisor	2.62 ± .61	2.19 ± .71
17.	plans daily food production	2.60 ± .59	2.10 ± .70
27c.	coordinates utilization of labor, equipment, and personnel within area	2.60 ± .56	1.95 ± .72

Table 5: (cont.)

item number	essential competencies for the entry-level dietitian (mean 2.50 to 3.0)	essentiality mean s.d.	degree of supervision mean s.d.
34.	uses effective merchandising techniques in the presentation of food to patients and/or clients (example: menu design)	2.59 ± .59	2.21 ± .68
2.	maintains current knowledge of new methods and systems in administrative management	2.58 ± .59	2.14 ± .77
15.	develops methods for evaluating client acceptance	2.56 ± .58	2.25 ± .68
13c.	plans menus which conform to budget and/or cost requirements, equipment, time, and personnel availability	2.55 ± .62	1.82 ± .73
37.	utilizes the performance appraisal as an evaluation as well as a motivational tool for personnel	2.52 ± .64	1.99 ± .74
10.	plans orientation and in-service training programs for all personnel involved with foodservice	2.51 ± .63	2.05 ± .72
12.	surveys and obtains appropriate training materials (audio-visual and written)	2.51 ± .56	2.21 ± .71
item number	desirable, but not essential for entry-level dietitian (mean 2.01 to 2.49)	essentiality mean s.d.	degree of supervision mean s.d.
27a.	coordinates systems within area to systems in other areas of the department (example: food production systems to foodservice systems)	2.47 ± .67	1.98 ± .69
39.	with appropriate personnel, modifies systems and/or procedures to solve problems within area	2.43 ± .65	1.84 ± .72

Table 5: (cont.)

item number	desirable, but not essential for entry-level dietitian (mean 2.01 to 2.49)	essentiality mean s.d.	degree of supervision mean s.d.
11c.	performs the following personnel functions: continuing in-service training of administrative personnel	2.42 ± .69	2.02 ± .71
31.	utilizes management techniques such as management by objectives	2.41 ± .65	1.93 ± .73
9.	develops job descriptions and specifications for personnel	2.40 ± .66	1.91 ± .69
4.	consistently evaluates effectiveness of systems and procedures which are utilized	2.38 ± .67	1.81 ± .69
27b.	coordinates systems within area to appropriate interdepartmental systems (example: food delivery systems to nursing service systems and procedures)	2.37 ± .69	1.86 ± .68
19.	plans a master schedule for personnel	2.33 ± .68	1.83 ± .72
32.	identifies state, local, and federal labor laws as well as institutional personnel policies which relate to personnel management	2.30 ± .70	1.85 ± .69
21.	maintains accurate and appropriate records for personnel management, fiscal control, and reporting purposes	2.23 ± .76	1.82 ± .76
24.	develops purchasing specifications that insure quality and quantity control	2.21 ± .70	1.71 ± .73
11b.	performs the following personnel functions: orientation of new administrative personnel	2.19 ± .77	1.97 ± .73
36.	conducts a task analyses and work sampling studies to provide a basis for developing new and evaluating exist- ing job descriptions and specifications	2.17 ± .73	1.86 ± .70

Table 5: (cont.)

item number	desirable, but not essential for entry-level dietitian (mean 2.01 to 2.49)	essentiality mean s.d.	degree of supervision mean s.d.
33.	utilizes appropriate management practices during union organization periods	2.08 ± .78	1.56 ± .63
3.	develops systems to support goals	2.05 ± .69	1.51 ± .58
6.	implements new systems	2.05 ± .72	1.51 ± .58
18.	determines man-hour requirements that relate to menu and budget specifications	2.03 ± .72	1.71 ± .68
7.	develops policies and procedures that are consistent with the institution, personnel availability, and characteristics of patient	2.02 ± .75	1.60 ± .64

item number	questionable relevance for the entry-level dietitian (mean 1.50 to 2.00)	essentiality mean s.d.	degree of supervision mean s.d.
23.	determines and justifies specifications for new equipment needed	1.97 ± .73	1.67 ± .69
11a.	performs the following personnel functions: interviewing and selection of administrative personnel such as foodservice supervisors and/or aides	1.86 ± .75	1.71 ± .69
5.	redesigns systems and prepares proposals to present, explain, and justify the proposed changes	1.73 ± .68	1.48 ± .61
25.	designs a non-computerized or computerized inventory system	1.68 ± .71	1.68 ± .69

Table 5: (cont.)

item number	questionable relevance for the entry-level dietitian (mean 1.50 to 2.00)	essentiality	degree of supervision
		mean s.d.	mean s.d.
1.	develops long and short range departmental goals and objectives	1.61 ± .66	1.47 ± .60
20.	plans a budget that conforms to departmental or program financial requirements	1.54 ± .67	1.39 ± .56

Competencies that may have questionable relevance (mean 2.00 or lower) for the entry-level dietitian included: "determines and justifies new equipment needs," "interviews and selects personnel," "redesigns systems," "designs inventory system," "develops department goals," "plans budget." These competencies were concerned with long-range planning and systems design activities. Further indication that these competencies are beyond realistic expectations for the beginning dietitian is the fact that over 20 per cent selected the response on scale 'b' that indicated these competencies could not be expected of entry-level dietitians (Table 11, Appendix G). Other competencies that the respondents believed should not be expected of entry-level on scale 'b' included: "implements new systems," "develops policies and procedures," "orients new personnel," "determines man-hour requirements," "maintains records," and "acts appropriately during union organization." These also were ranked low (Table 5) in degree of supervision indicating close supervision was needed except for one, "orients new personnel." Even though this is a relatively easy task, perhaps some respondents believed that entry-level dietitians themselves are in the orientation period and would not appropriately be assigned to orientation activities.

Mean scores for degree of supervision were slightly lower than the scores for essentiality, ranging from 1.39 to 2.52. Generally, competencies requiring the least amount of supervision were those competencies considered the most essential and competencies requiring closer supervision were the least essential. Rank-order correlation analysis of scores on the two scales, essentiality and degree of supervision, resulted in $r = .9333$. This indicates that the numerical rankings of each statement were similar on both the 'a' and 'b' scales.

Relationship to Demographic Data. Few significant differences were found in responses to the administrative questionnaire in relation to demographic data. Table 12, Appendix G presents data for analysis of variance of all factors studied. Only one of the demographic variables seemed to influence responses (Table 6). Length of time employed in the profession was significantly related to five competency statements on scale 'b,' degree of supervision: "maintains current knowledge," "evaluates effectiveness of systems," "develops policies and procedures," "considers resources in menu planning," and "maintains effective communication." In each case, those who had been employed longest believed that the beginning dietitians needed close supervision; while newcomers to the profession believed less supervision was necessary. Disillusionment from working with new graduates who did not meet their expectations could be a factor, or perhaps, the more experienced dietitians may be less willing to acknowledge the abilities of new professionals in the field. On each of these five items those with less experience were more confident of the entry-level dietitian's competence to function with less supervision.

Supervision of the Entry-level Dietitian. To designate those competencies where closer supervision would be needed Cagguila's document (Appendix A) used phases such as "cooperates with the administrative specialist." Comparisons with those competencies which the practitioners indicated more supervision would be needed found a difference of opinion; the practitioners perceived the administrative role of the entry-level dietitian differently. Of the nine statements in Cagguila's document which indicated supervision was needed, only five appeared in the practitioner's list. Items on which there was agreement were: "develops systems," "designs inventory systems," "interviews and selects personnel," "redesigns

systems," and "implements new systems." The original document also indicated that supervision of the administrative specialist was needed in the following performance areas: "plans orientation and inservice training," "evaluates client acceptance," "orients new personnel," and "conducts inservice training." The practitioners' ratings indicated that these could be performed with only general supervision. Other competencies which the practitioners indicated a need for close supervision included: "plans budget," "develops department goals," "acts appropriately during union organization," and "develops policies and procedures."

Essential Clinical Competencies

Table 7 details essentiality and degree of supervision mean scores for each clinical competency statement. Competencies are arranged from the most essential to the least essential. Fourteen of the thirty-five competencies were considered "essential," sixteen "desirable," and five were rated beyond entry-level. Percentage distributions are shown in Table 13, Appendix G.

Clinical competencies of a technical nature evaluated as essential for the beginning dietitian, included: "monitors and charts progress of nutrition care," "analyzes previous nutritional intake," "maintains records of nutrition care unit," "assesses nutritional status," "develops nutrition care plans," "participates in health team activities," "identifies those requiring nutrition care," "obtains materials for nutrition education." Human skills-related competencies included: "provides motivational environment," "communicates to appropriate personnel," "provides individual and group nutrition counseling." Essential conceptual level competencies for the entry-level dietitian included: "maintains current knowledge,"

Table 7: Essentiality and degree of supervision for entry-level clinical competencies¹

item number	essential competencies for the entry-level dietitian (mean 2.50 to 3.0) ²	essentiality ³	degree of supervision ⁴
		mean s.d.	mean s.d.
25.	maintains current knowledge of new methods and approaches for the provision of nutrition care	2.86 ± .40	2.64 ± .58
7.	regularly monitors and records in the nutrition care plan and chart the progress of individuals to whom care is directed	2.81 ± .45	2.47 ± .61
16.	encourages and motivates personnel to provide optimal care by example and adequate reinforcement	2.76 ± .53	2.58 ± .61
15.	communicates orally and via written communication (such as chart notes) pertinent aspects of the nutrition care plan to appropriate clinical personnel, foodservice personnel, and other health team members	2.74 ± .51	2.33 ± .71
3.	analyzes previous nutritional intake for nutritional adequacy and similarity to proposed pattern indicated by recommended modification	2.73 ± .55	2.42 ± .65

¹N varies from 264 to 267.

²Competency statements are ordered from most to least essential.

³Essentiality scale
 1 = could not expect
 2 = desirable, but not essential
 3 = essential

⁴Degree of supervision
 0 = not expected at entry-level
 1 = close supervision
 2 = general supervision
 3 = little or no supervision
 (0 omitted in computation of supervision score.)

Table 7: (cont.)

item number	essential competencies for the entry-level dietitian (mean 2.50 to 3.0)	essentiality mean s.d.	degree of supervision mean s.d.
18.	maintains adequate records and a system of regularly reporting the services provided by the clinical nutrition care unit	2.66 ± .56	2.30 ± .66
2.	compiles relevant information from appropriate sources (chart, nursing care plan, members of the health team such as the physician, nurse, and social worker, community agencies, and the patient or client) necessary to make a nutritional assessment	2.65 ± .62	2.15 ± .70
6.	utilizing information collected from nutritional assessment and develops a plan for the provision of optimal nutrition care	2.65 ± .58	2.09 ± .71
20.	participates in health team activities such as case conferences, medical rounds and Grand Rounds	2.62 ± .60	2.46 ± .69
1.	identifies individuals and/or groups who require nutrition care	2.61 ± .63	2.29 ± .67
26.	analyzes new approaches and identifies those which relate to his/her area and program	2.57 ± .62	2.33 ± .71
9.	surveys available materials and obtains those materials necessary for the implementation of nutrition care	2.57 ± .56	2.31 ± .66
17.	provides and directs nutrition care through individual counselling, group counselling, and alternate methods such as audio-visual programming	2.55 ± .60	2.22 ± .66
19.	serves as a nutritional consultant to other health team members by providing nutritional information, recommendations for nutrition care and appropriate materials	2.51 ± .69	2.13 ± .70

Table 7: (cont.)

item number	desirable, but not essential for entry-level dietitian (mean 2.01 to 2.49)	essentiality		degree of supervision	
		mean	s.d.	mean	s.d.
5.	evaluates individual's learning ability, previous knowledge of nutritional modification(s), life style, motivational level, flexibility, acceptance of medical condition, and possible changes in nutrition care that may result from a change in position in life cycle	2.46 ± .70		2.13 ± .70	
4.	distinguishes and relates pertinent aspects of the individual's medical status (medical history, laboratory diagnostic data, drug treatment and present medical symptoms) to nutritional planning	2.42 ± .70		1.90 ± .71	
22.	communicates changes to appropriate clinical personnel or recommends changes to other health team members such as the physician	2.41 ± .70		2.03 ± .73	
14.	supervises the daily performance of personnel directly involved in the provision of clinical nutrition care	2.35 ± .75		2.13 ± .73	
24.	continuously evaluates the effectiveness of clinical nutrition care services	2.30 ± .69		2.07 ± .76	
21.	identifies the need for changes in the nutrition care objectives and methods for delivery of care	2.30 ± .69		1.98 ± .73	
8.	plans for the use of alternate methods and/or systems for nutrition education (group classes, programmed learning material, audio-visual materials, etc.)	2.29 ± .65		1.95 ± .61	
27.	prepares a proposal to explain and justify the need for new approaches	2.20 ± .65		1.85 ± .73	

Table 7: (cont.)

item number	desirable, but not essential for entry-level dietitian (mean 2.01 to 2.49)	essentiality mean s.d.	degree of supervision mean s.d.
33.	serves as an institutional or community resource for nutrition oriented consumer information	2.17 ± .70	2.12 ± .71
23.	refers individuals to appropriate outside agencies or programs for continuance of care, and provides these agencies with information related to previous care	2.14 ± .72	1.99 ± .71
13.	assigns nutrition care related tasks to appropriate personnel (according to the nutrition care plan) and coordinates the performance of these tasks	2.14 ± .68	1.86 ± .69
12c.	performs the following personnel functions: continuing in-service training of clinical personnel	2.13 ± .72	1.89 ± .70
28.	implements new approaches	2.08 ± .72	1.74 ± .70
32.	utilizes community related or community based institutions or programs to meet long-range objectives of nutrition care	2.08 ± .72	1.95 ± .73
31.	cooperates with other specialists (such as the public health nutritionist) in the design of community related programs to provide preventive or interventive nutrition care	2.08 ± .71	1.97 ± .74
12b.	performs the following personnel functions: orientation of new clinical personnel	2.04 ± .70	1.90 ± .76

Table 7: (cont.)

item number	questionable relevance for the entry-level dietitian (mean 1.50 to 2.00)	essentiality		degree of supervision	
		mean	s.d.	mean	s.d.
29.	identifies the need for community related or community based programs to provide preventive nutrition programs and long-term interventive nutrition care	1.92	± .69	1.86	± .68
30.	identifies pertinent legislation and sources of outside funding that influence the provision of nutrition care in the institution and the community	1.74	± .68	1.90	± .70
11.	develops staffing patterns, job descriptions and specifications for individuals (dietitians, technicians, and clerks) involved in the provision of clinical nutrition care	1.72	± .71	1.60	± .66
10.	plans nutritional guidelines (i.e., diet manual, nutritional guidelines, and policies and procedures related to nutrition care) consistent with the objectives of the institution, and current nutrition knowledge	1.63	± .70	1.47	± .64
12a.	performs the following personnel functions related to staffing for nutritional care: interviewing and selection of clinical personnel, i.e., technician and clerk	1.63	± .68	1.62	± .73

"analyzes new approaches," "serves as a nutrition consultant to health team."

Competencies that may have questionable relevance as requirements for the entry-level dietitian included: "identifies need for community programs," "identifies legislation and funds in community nutrition," "develops staffing patterns for clinical personnel," "plans nutritional guidelines," and "interviews and selects personnel." These competencies are concerned with activities for which an experiential base especially would be useful. As in the administrative findings, over 20 per cent of the respondents stated that these competencies could not be expected of entry-level dietitians on scale 'b' (Table 13, Appendix G). Three other competencies, "orients new personnel," "implements new approaches," "cooperates in the design of community programs," also had high percentages of respondents indicating these could not be expected at entry-level, and were among the competencies rated lowest on the essentiality scale.

Rank-order correlation analysis of responses on the two scales, essentiality and degree of supervision, for the clinical sample was $r = .901$. This means that the numerical ranking of each statement was similar on both the 'a' and 'b' scales, higher essentiality scores were accompanied by higher supervision ratings, indicating less supervision is required. Mean scores for degree of supervision were slightly lower than the scores for essentiality, ranging from 1.47 to 2.64.

Relationship to Demographic Data. A few more significant differences were found in responses to the clinical questionnaire in relation to the demographic data than in the administrative questionnaire. Table 14, Appendix G presents data for analysis of variance of all factors studied. Table 8 shows that significant differences were found in ratings of

Table 8: Significant F ratios for analyses of variance of clinical competency ratings

A. Essentiality ratings

item number	item	years in ADA			F ¹ ratio
		<5	6-10	11-20	
1.	identifies those requiring nutritional care	2.8	2.6	2.5	2.4
5.	evaluates socio-psychological factors in nutrition care	2.6	2.4	2.4	2.3
15.	communicates to appropriate personnel	2.9	2.7	2.6	2.7
19.	serves as nutritional consultant to health team	2.7	2.5	2.4	2.3
22.	recommends changes in nutrition care	2.6	2.4	2.2	2.3
					7.55***
					3.55*
					3.45*
					3.67*
					7.52***

item number	item	years in profession			F ratio
		<5	5-10	11-25	
2.	identifies those requiring nutritional care	2.7	2.7	2.5	2.3
15.	communicates to appropriate personnel	2.9	2.7	2.6	2.7
21.	identifies need for changes in nutrition care	2.5	2.2	2.3	2.0
22.	recommends changes in nutrition care	2.6	2.5	2.3	2.0
					4.87**
					2.93*
					3.95**
					5.99***

¹Analysis of variance with Scheffe' test for comparison of differences among means; lines between means indicates significant differences at .05 level.

*P < .05 **P < .01 ***P < .001

Table 8: (cont.)

B. Degree of supervision ratings

item number	item	area of country					F ratio
		NE	SE	MW	SW	W	
8.	plans nutrition education	1.8	2.2	1.8	2.0	2.0	3.84**
14.	supervises personnel	2.0	2.1	2.0	2.6	2.1	3.62**
17.	provides individual and group nutrition counseling	2.1	2.3	2.1	2.5	2.4	4.34**
32.	utilizes community programs	2.0	1.9	1.7	2.0	2.3	2.81*
33.	serves as community resource person	2.1	2.2	1.9	2.4	2.3	3.63**

item number	item	years in ADA				F ratio
		<5	6-10	11-20	>20	
1.	identifies those requiring nutrition care	2.5	2.4	2.1	2.0	6.50***
2.	assesses nutritional status	2.4	2.1	2.1	1.9	7.63***
4.	relates medical status to nutritional planning	2.1	2.0	1.7	1.8	5.03**
20.	participates in health team activities	2.6	2.5	2.4	2.3	3.90**
21.	identifies need for changes in nutrition care	2.2	2.0	1.8	1.9	3.28*

*P ≤ .05 **P ≤ .01 ***P ≤ .001

Table 8: (cont.)

item number	item	years in profession				F ratio
		< 5	5-10	11-25	>25	
1.	identifies those requiring nutrition care	2.4	2.3	2.2	1.9	3.96**
2.	assesses nutritional status	2.4	2.1	2.0	2.0	6.69***
7.	monitors and charts progress of nutrition care	2.6	2.5	2.3	2.4	3.00*
15.	communicates to appropriate personnel	2.5	2.3	2.2	2.4	3.88**
20.	participates in health team activities	2.6	2.4	2.3	2.5	3.27*
23.	utilizes outside agencies for continuing care	2.1	1.8	2.0	2.4	4.32**
27.	prepares proposal	1.8	1.8	1.9	2.3	3.11*
29.	identifies need for community programs	1.8	1.9	1.8	2.4	4.48**

*P < .05 **P < .01 ***P < .001

competencies in relation to two demographic variables on the essentiality scale and to three on the degree of supervision scale.

Years in ADA and years in profession no doubt are similar characteristics and are tapping similar, but not the exact same groups. Three of the items--"identifies those requiring nutritional care," "communicates to appropriate personnel," and "recommends changes in nutrition care"--were assessed significantly different on both of the demographic variables on the essentiality scale. Ratings for three other items differed significantly in relation to either years in the profession or years in ADA--"evaluates socio-psychological factors in nutrition care," "serves as nutritional consultant to health team," and "identifies need for changes in nutrition care." In each case, those employed the shortest amount of time believed that these competencies were most essential for the entry-level dietitian than those employed longer. Apparently more experienced dietitians believe that these competencies develop with experience and could not be expected of the beginning dietitian.

Area of the country was related significantly to five items on the degree of supervision scale--"plans nutrition education," "supervises personnel," "provides individual and group nutrition counseling," "utilizes community programs," and "serves as community resource person." Apparently there may be regional differences in dietetic practice in these areas of clinical and community practice.

On the degree of supervision scale in relation to years in ADA five significant differences occurred and eight, in relation to the years in profession. "Identifies those requiring nutrition care," "assesses nutritional status," and "participates in health team activities" differed among groups for both variables. "Relates medical status to nutritional planning"

and "identifies need for changes in nutrition care" were related to years in ADA and "monitors and charts progress of nutrition care," to years in profession. In each case, those who had been employed longest believed that beginning dietitians needed close supervision; while newcomers to the profession believed less supervision was necessary. Again, as in the administrative study, the more experienced dietitians were apparently less willing to acknowledge the abilities of new professionals in the field. Also, those with less experience were more confident of the entry-level dietitian's competence to function with less supervision.

In community nutrition-related activities, the more experienced dietitians evaluated the need for supervision to be less than did newcomers to the field. Perhaps this is a reflection of an awareness on the part of those in the field longer, of the greater emphasis on community nutrition in present educational programs.

Supervision of the Entry-level Dietitian. As in the administrative section, to designate those competencies where closer supervision would be needed the Cagguila's document (Appendix A) used phrases such as "in cooperation with the clinical specialist. . . ." There was agreement between the practitioners' evaluation of performance areas requiring supervision and those identified by Cagguila with one exception, "design of community-related programs." Although the practitioners did not indicate close supervision was needed, over 20 per cent of the respondents indicated this competence was not entry-level on scale 'b.'

Comments of Respondents

Space at the end of the questionnaire was provided for respondents to react generally to the respective instruments they received. The comments

considered most significant are summarized below; some comments were made by many, while some were insights of a few.

They agreed that all duties were essential for dietitians in small hospitals. Many dietitians believed that the degree of supervision depended on job situation (type of personnel available, number of trained R.D.'s on staff, size and type of institution) and on qualifications of existing staff. Also, many believed that several of the competencies were too comprehensive for entry-level performance and that it would take from six months to a year to understand the department and the hospital before the beginning dietitian could operate on her own.

Responsibilities given and degree of supervision needed were considered highly individual, varying with the entry-level dietitian's background, training, potential, drive, maturity, confidence, and expertise. Several indicated one must evaluate the quality of the previous education of the individual and attempt to bring his/her weaker points up to the experienced dietitian's standards.

The ability to define problems, to evaluate alternate solutions, and to ask pertinent questions before making a final decision were stressed for dietetic graduates. They should make decisions and not "pass the buck" was the consensus of several respondents. Other qualities looked for were: willingness to accept responsibility, maturity, common sense, honesty, flexibility, high personal standards, intelligence, eagerness to learn, and empathy. One practitioner believed that even though the ability to deal with people is individual, it "totally determines administrative capabilities." It was believed the beginning dietitian must be willing to accept and follow constructive suggestions and must have self confidence.

One dietitian commented that she had found that if one never expects competent performance in the areas covered, young professionals will never develop to their full potential. Interns (or students) should be given a chance for responsibility and the freedom to make mistakes and learn from experience was another conviction stated. Some have been disappointed by the lack of ability and maturity in beginning dietitians and have, therefore, lowered their expectations. A number of practitioners believed that students need more background in a variety of areas, among those listed were: operations management, union relations, legislation, computer applications, cost control, food preparation, teaching methods, and world health problems.

Several advocated greater separation of clinical and administrative functions. They believed that the entry-level administrative dietitian should have a broad background of knowledge and then develop specialization on the job, "true competency comes with experience."

Many purported that new graduates should not take jobs for which they were not prepared, such as directorships and "only" positions. However, a number believed that it was not a necessity for an entry-level dietitian to work under the direction of an experienced practitioner. The beginning dietitian was seen as someone who could give fresh ideas, give suggestions, observe, but not implement ideas.

Some practitioners commented on the questionnaire itself. Many believed the statements were "bookish" and not related to the "real world" situation. A suggestion was made to define the size of the institution and indicate the degree of departmentalization. Continuing education was purported as necessary to develop ability to perform. "Dietitians need to develop the philosophy of seeing themselves in the total scheme in coping

with world health and nutrition problems," was one particularly provocative comment.

Respondents also were encouraged to comment on individual competencies. Comments on individual questions were similar to the general comments. The respondents believed that many competencies were situational: depending on the size and type of institution, the number of dietitians employed, the complexity of systems in effect. The competencies tended to be rated more essential if one was an "only" dietitian. Comments indicated the level of supervision depended greatly on an individual's competency and initiative.

In some hospitals, the competencies were not performed by dietitians; so the respondents believed that these were not essential; for example, inventory control or ordering systems were computerized. Several indicated hospital rules and regulations prevented them from performing some of the clinical competencies, such as participating in grand rounds. Interviewing was viewed as a complicated and serious procedure for which the dietitian must be prepared. Several indicated present educational programs do not emphasize interviewing sufficiently. A number of comments reflected a view that many entry-level dietitians are not adequately prepared in several competency areas, such as "relates medical status to nutritional planning," but that they should be qualified in these performance areas.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A profession has an obligation to society to provide competent practitioners. In dietetics, as in other health related professions, attention should be directed to identifying present competencies of various levels within the profession and new competencies that will allow for greater contribution to maximum health care. Although some skills can be gained on the job, the beginning dietitian is assumed to have a certain amount of knowledge and competency. In training the entry-level professional, a prime concern of educators is defining the expected level of performance. Katz (2) identified the three types of skills for administrative personnel as technical, human, and conceptual. He further specified first level positions as involving primarily technical and human skill, with little emphasis on conceptual skills. His model has applicability to other professions in defining competency dimensions.

The dietetic profession has given top priority to the identification of competencies for the entry-level dietitian. By the 1980's, membership in The American Dietetic Association should be based on competencies, using Plan IV of the Minimum Academic Requirements. These were developed primarily by educators to describe the academic outcomes of the education of entry-level dietitians.

Competencies are needed that include the clinical or applied aspects of the educational process, those experiences based on actual activities related to the practice of dietetics. In 1972, Cagguila was commissioned by the ADA Executive Board to develop entry-level competencies for the generalist dietitian as a first step in the process of identifying competencies for the profession. Again, these have been evaluated primarily by

educators. To insure validity for academic and clinical preparation, input also is needed from practitioners, employers, and clients.

The purpose of this study was to secure information from a random sample of hospital dietetic practitioners concerning their expectations of the entry-level generalist dietitian. The competencies developed by Cagguila were used as the basis for the research. What do professionals in the field view as the necessary skills for effective practice? How much supervision is required in various aspects of practice? The study was limited to hospital dietitians since they comprise the largest group within the profession.

Administrative and clinical competencies were evaluated by clinical, administrative, and generalist hospital dietitians through a mail survey. Eight hundred instruments were distributed. The administrative form was sent to random samples of 200 generalist and 200 administrative dietitians; the clinical form, to random samples of generalist and clinical dietitians. The intent was to assess perceptions of both specialists and generalists employed in the profession. Two hundred seventy administrative instruments (67.5%) and 286 clinical instruments (71.5%) were returned.

Each competency was evaluated on two scales, essentiality for the entry-level dietitian and degree of supervision needed to perform each competency. A competency was rated as essential for entry-level if the mean essentiality score were 2.50 or higher; desirable, but not essential if the mean score were 2.01 to 2.49; and of questionable relevance for the entry-level dietitian if the mean was below 2.00.

Twenty-three of the forty-seven administrative competencies were considered "essential"; eighteen, "desirable"; and six were rated as beyond entry-level. Fourteen of the essential competencies were classified as

involving primarily technical skills; for example, "monitors receiving, storage, and sanitation," "monitors production and service," "plans sanitation schedules," and "develops standardized recipes." Competencies based on human skills included: "provides motivational environment," "maintains effective communication," "supervises personnel effectively," "delegates," "uses performance appraisal," and "plans orientation and inservice training." Only three competencies were related to conceptual skills: "identifies and analyzes problems," "maintains current knowledge," and "evaluates client acceptance."

Fourteen of the thirty-five clinical competencies were considered "essential," sixteen "desirable," and five were rated beyond entry-level. Essential competencies of a technical nature included: "monitors and charts progress of nutrition care," "analyzes previous nutritional intake," and "maintains records of nutrition care unit." Human skills-related competencies included: "provides motivational environment" and "communicates to appropriate personnel." Essential conceptual level competencies for the entry-level dietitian included: "maintains current knowledge," "analyzes new approaches," and "serves as a nutrition consultant to health team."

Scale 'b,' degree of supervision, scores were tabulated. Generally, competencies requiring the least amount of supervision were those competencies considered the most essential and competencies requiring closer supervision were the least essential. Rank-order correlation analysis of scores on the two scales resulted in coefficients of .933 on the administrative and .901 on the clinical form.

Factor analysis of each of the research instruments resulted in one general factor interpreted as "General competence and versatility." Forty-six of the forty-seven administrative items loaded on this factor and

all of the thirty-five items loaded on Factor I in the analysis of the clinical data. A series of bipolar factors also were identified suggesting alternative types of strengths or emphases. Respondents agreed that almost all competencies were relevant; but their own situations or biases differed enough that certain secondary emphases were identified by the bipolar factors.

Few significant differences were found in responses to the instrument in relation to demographic data. Demographic variables which affected mean scores included years in ADA, years in profession, and area of the country. Amount of experience affected several scores; those with more experience viewed some competencies as less essential or requiring more supervision than did those dietitians with less experience.

Competencies rated as beyond expectations for entry-level dietitian in the administrative area of practice were: "determines and justifies new equipment needs," "interviews and selects personnel," "redesigns systems," "designs inventory system," "develops department goals," and "plans budget." Clinical competencies rated low on the essentiality scale included "identifies need for community programs," "identifies legislation and funds in community nutrition," "develops staffing pattern for clinical personnel," "plans nutritional guidelines," and "interviews and selects personnel." These competencies are primarily conceptual skill-related, involving long-range planning and organizational coordination.

Many respondents commented that the competencies were too comprehensive and it may not be realistic to expect all of these from an entry-level dietitian in the stated two month period. Many suggested that even with individual differences, six months to a year may be needed before the dietitian could perform all competencies effectively. Many competencies

were believed to be situational (varying with size of institution, number and competence of dietitians employed, and complexity of systems in effect), even though statistical analysis of responses in this study did not indicate this. All duties were considered essential for dietitians in "only" positions according to comments of several respondents.

The purpose of this research was to study hospital dietetic practitioners' viewpoints of entry-level competencies, to identify competencies judged to be the most essential and the degree of supervision believed necessary in various performance areas. The respondents basically agreed that the essential competencies should require only general or little supervision. Some revision might be necessary in some competency statements to reflect degree of supervision. Should the list include only those competencies which the entry-level dietitian can do independently? If phases which indicate degree of supervision are included in the final document, more study will be necessary to delineate these. There may still be some gaps in the competencies. For example, working with unions probably should not be limited to simply "while under organization." Knowledge of market trends and economic constraints also are necessary for administrative dietitians.

Additional research is needed to define differences in performance expectations of supportive personnel versus entry-level professionals and also, of entry-level versus experienced dietitians. Studies also could amplify the entry-level dietitian's own perceptions of performance demands.

Wide distribution of the final competencies identified and agreed upon will be needed--to employers, allied professionals, and practicing dietitians as well as educators. The competencies resulting from this study provide a starting point for development and evaluation of curricula in

dietetic education. These competencies, once refined, provide the basis for a competency-based educational system. Terminal performance objectives, enabling objectives, course content, didactic and clinical learning experiences, and formative and summative evaluation devices can be developed from the competencies. The educational consultant who worked on the project indicated the high degree of consensus lends validity to the document in describing entry-level practice. The few differences among respondents in relation to the various demographic variables studied indicates entry-level dietetic practice is defined similarly in various facets of the profession.

REFERENCES

1. Hart, M. and Sharp, J.: The dietitian and credentialing. J. Am. Dietet. A. 66: 455, 1975.
2. Katz, R. L.: Skills of an effective administrator. Harvard Business Rev. 52: 90 (Sept.-Oct.), 1974.
3. Annual Reports and Proceedings, 55th annual meeting, New Orleans, Louisiana, 1971-1972. Chicago: The Am. Dietet. A.
4. Annual Reports and Proceedings, 56th annual meeting, Denver, Colorado, 1972-1973. Chicago: The Am. Dietet. A.
5. Myers, G. A.: Report on Dietetic Internship Board and Site Evaluators Workshop, February 6-7, 1975. (Typewritten report, Feb. 18, 1975), Chicago: The Am. Dietet. A.
6. Hart, M. E.: Dietetic education--past, present and future. J. Am. Dietet. A. 64: 612, 1974.
7. Competency: tell and share. ADA Courier XI: 3 (Nov.), 1972. Chicago: The Am. Dietet. A.
8. Piper, G. M.: Dietary manpower to meet demands for health service. J. Am. Dietet. A. 54: 376, 1969.
9. Membership data base analysis. November 25, 1974. Chicago: The Am. Dietet. A.
10. Comm. to Develop a Glossary on Terminology for the Association and Profession: Titles, definitions, and responsibilities for the profession of dietetics--1974. J. Am. Dietet. A. 64: 661, 1974.
11. Cagguila, A.: Competencies of the entry-level generalist dietitian. (Typewritten report, no date, distributed at the Dietetic Internship Council Meeting, Feb. 1974), Chicago: The Am. Dietet. A.
12. Tate, D. E.: A study of competencies and factors related to continuing education for faculties of hospital dietetic internship programs. Unpublished Ph.D. dissertation. North Carolina State Univ., 1971.
13. Huddleson, M. P.: A new profession is born. J. Am. Dietet. A. 23: 573, 1947.
14. Cooper, L. F.: Florence Nightingale's contribution to dietetics. J. Am. Dietet. A. 30: 121, 1954.
15. Johnson, D.: The dietitian--a translator of nutritional information. J. Am. Dietet. A. 64: 608, 1974.

16. Rorer, S. T.: Early dietetics. J. Am. Dietet. A. 10: 289, 1934.
17. Huddleson, M. P.: Sarah Tyson Rorer--pioneer in applied nutrition. J. Am. Dietet. A. 26: 321, 1950.
18. Barber, M. I.: History of The American Dietetic Association, 1917-1959. Philadelphia: J. P. Lippincott Co., 1959.
19. Lipscomb, M.: Early days of hospital dietetics. J. Am. Dietet. A. 49: 103, 1966.
20. Mitchell, K.: President's address. J. Am. Dietet. A. 12: 293, 1936.
21. MacEachern, M. T.: The hospital dietary department--a forecast. J. Am. Dietet. A. 1: 3, 1925.
22. Study Commission on Dietetics: The Profession of Dietetics. Chicago: The Am. Dietet. A., 1972.
23. Comm. on Goals of Education for Dietetics, Dietetic Internship Council: Goals of the lifetime education of the dietitian. J. Am. Dietet. A. 54: 91, 1969.
24. Kirk, R. B.: The dietitian's hidden nature? J. Am. Dietet. A. 35: 1055, 1959.
25. Personality factors in public relations. J. Am. Dietet. A. 23: 617, 1947.
26. Copher, M. H.: The administration of a hospital dietary department. J. Am. Dietet. A. 1: 60, 1925.
27. MacLachlan, M.: The dietitian of the future. J. Am. Dietet. A. 23: 1, 1947.
28. A study of the needs and responsibilities of the student dietitian. J. Am. Dietet. A. 20: 533, 1944.
29. Cleveland, S. E.: Personality characteristics of dietitians and nurses. J. Am. Dietet. A. 43: 104, 1963.
30. Hornaday, J. A.: Interest patterns of dietitians. J. Am. Dietet. A. 43: 99, 1963.
31. Noland, M. S. and Steinberg, R.: Activities of therapeutic dietitians--a survey report. J. Am. Dietet. A. 46: 477, 1965.
32. Wagner, M. G. and Dreyer, A. S.: The dietitian's perception of authority. J. Am. Dietet. A. 41: 205, 1962.
33. Cartmill, G. E.: What does top management expect? J. Am. Dietet. A. 34: 727, 1958.

34. Ross, A.: An administrator looks at the department of dietetics. J. Am. Dietet. A. 50: 26, 1967.
35. Rainer, W. G.: What is a well organized dietary department? An administrator speaks. J. Am. Dietet. A. 34: 938, 1958.
36. Cartmill, G. E.: What does the hospital administration expect of the dietitian? J. Am. Dietet. A. 32: 205, 1956.
37. Kurtz, C.: What do dietitians ask of administrators? Mod. Hosp. 105: 158 (Nov.), 1965.
38. Bartlett, D.: How administrative dietitians get that way. Mod. Hosp. 89: 110 (Sept.), 1957.
39. Carroll, S. C.: Status of dietitians in the hospital. J. Am. Dietet. A. 35: 1027, 1959.
40. Lipscomb, M. and Donaldson, B.: Management activities of directors of dietetics. J. Am. Dietet. A. 44: 465, 1964.
41. Vivian, V.: The dietitian-patient relationship. J. Am. Dietet. A. 30: 1259, 1954.
42. Tillotson, J. and Loughney, M. D.: The therapeutic dietitians activities in a research hospital. J. Am. Dietet. A. 43: 349, 1963.
43. Duties and responsibilities. J. Am. Dietet. A. 30: 692, 1954.
44. ADA Report: Duties and responsibilities in the department of dietetics. J. Am. Dietet. A. 46: 179, 1965.
45. Zahasky, M. C. and Brady, N. A.: Policies for effective administration of department of dietetics. J. Am. Dietet. A. 34: 160, 1958.
46. Responsibilities of dietitians to administrators and physicians. J. Am. Dietet. A. 40: 41, 1962.
47. Committee: Standards for effective administration of a hospital department of dietetics. J. Am. Dietet. A. 43: 357, 1963.
48. Johnson, D.: Changing role of dietitian. J. Am. Dietet. A. 36: 593, 1960.
49. Young, C. M.: The therapeutic dietitian--challenge for cooperation. J. Am. Dietet. A. 47: 96, 1965.
50. Bloetjes, J., Couch, M. A., and Gootlieb, R.: A study of dietetic training, II. Changes in hospital dietetic administration through delegation. J. Am. Dietet. A. 41: 550, 1962.

51. Kline, A. J. and Dowling, W. D.: Delegation of duties to hospital dietary supportive personnel. J. Am. Dietet. A. 60: 201, 1972.
52. Lipscomb, M. and Donaldson, B.: How well do directors of dietetics fulfill managerial responsibilities? J. Am. Dietet. A. 45: 218, 1964.
53. Clark, H. E. C.: Perceptions of chief hospital dietitians. Unpublished M.S. thesis, Univ. of Nebraska, 1971.
54. Hofto, J. H. and Brush, M. K.: Hospital administrators' appraisal of dietitians' managerial performance. J. Am. Dietet. A. 61: 296, 1972.
55. Schiller, R. S. M.: The clinical dietitian: role consensus of dietitians and physicians. Unpublished Ph.D. dissertation. The Ohio State Univ., 1972.
56. Johnson, C. A.: Entry-level clinical dietetic practice as viewed by clients and allied professionals: a pilot study. J. Am. Dietet. A. 66: 261, 1975.
57. Spangler, A. A.: Educational preparation of hospital dietitians: present functions and satisfactions; characteristics needed for contributing membership on health teams. Unpublished Ph.D. thesis, Michigan State Univ., 1971.
58. Patterson, I.: Dietetic education--some current issues. J. Am. Dietet. A. 45: 19, 1964.
59. Robinson, W. F.: Your role in the continuing development of dietetics. J. Am. Dietet. A. 47: 89, 1965.
60. Wilson, M. A.: Undergraduate education in dietetics. J. of Nutr. Educ. 4: 132, 1972.
61. What's new at the university: examples of clinical teaching in coordinated undergraduate programs. J. Am. Dietet. A. 65: 556, 1974.
62. The profession of dietetics: approved programs, 1974-1975. Chicago: The Am. Dietet. A.
63. Corbett, F. R.: Essentials in training of the dietitian. J. Home Econ. 2: 499, 1910.
64. Marlatt, A. L.: Report on college courses for prospective dietitians. J. Am. Dietet. A. 1: 179, 1925.
65. Comm. on Education: Outline for standard course of student dietitians in hospitals. J. Am. Dietet. A. 3: 183, 1927.
66. Johnson, K. M.: Evolving standards of training for the dietitian. J. Am. Dietet. A. 25: 504, 1949.

67. Academic Requirements for active membership in The American Dietetic Association and entrance to courses for student dietitians approved by the executive board. J. Am. Dietet. A. 20: 230, 1944.
68. New requirements for ADA membership. J. Am. Dietet. A. 35: 253, 1959.
69. Annual Reports and Proceedings, 41st annual meeting, Philadelphia, Pennsylvania, 1957-1958. Chicago: The Am. Dietet. A.
70. Academic Requirements Committee Report to Executive Board, 1967-1972. (Typewritten report, Feb. 15, 1972), Chicago: The Am. Dietet. A.
71. Foodservice Systems Management Education Council: An open letter. J. Am. Dietet. A. 63: 556, 1973.
72. Minimum Academic Requirements for ADA Membership Plan IV Background. (Typewritten report, no date).
73. West, B. B.: Design for progress. J. Am. Dietet. A. 22: 1059, 1946.
74. Ross, M. L.: The long view. J. Am. Dietet. A. 56: 295, 1970.
75. Mayer, J.: Dietetics looks to the future. Postgrad. Med. 40: A97 (Aug.), 1966.
76. ADA Position Paper: Education for the profession of dietetics. J. Am. Dietet. A. 59: 372, 1971.
77. Johnson, D.: The dietitian--a translator of nutritional information. J. Am. Dietet. A. 64: 608, 1974.
78. Beal, M. E. and Newton, M. E.: The dietetic intern. J. Home Econ. 58: 87, 1966.
79. Sanford, J. P.: Graduates of hospital dietetic internships: their employment and their perceptions of internship experiences in selected areas of administration. Unpublished Ph.D. thesis, Iowa State Univ., 1970.
80. Peyton, B. H.: Preparedness of 1971 graduate dietitians from hospital dietetic internships regarding first employment. Unpublished M.S. thesis, Emory Univ., 1972.
81. Moore, A. N.: A study of attitudes of recent graduates toward their educational preparation for foodservice administration in home economics and hotel, restaurant, and institutional administration in selected universities. Unpublished Ph.D. thesis, Michigan State Univ., 1959.
82. Miller, G. A.: A study of the effectiveness of academic preparation of recent home economics graduates as related to managerial responsibilities in the foodservice industry. Unpublished Ph.D. thesis, Michigan State Univ., 1959.

83. Downey, E. A.: Strengths and weaknesses in the administrative phase of the hospital dietetic internship: an exploratory study. Unpublished M.S. thesis, The Ohio State Univ., 1955.
84. Parker, D. L.: A survey of opinions of selected dietitians for developing a method of classifying duties of dietitians and of determining executive training needs. Unpublished M.S. thesis, Cornell Univ., 1954.
85. Matthews, M. E., Mahaffey, M. J., Lerner, R. N., and Bunch, W. L.: Profiles of the future for administrative dietitians via the Delphi technique. *J. Am. Dietet. A.* 66: 494, 1975.
86. Galster, M. D. Criteria for certain aspects of institution management curricula. Unpublished M.S. thesis, Iowa State Univ., 1953.
87. Daza, N. V.: An analysis of required courses in institution management at Cornell University and their relation to the duties of the hospital dietitian. Unpublished M.S. thesis, Cornell Univ., 1956.
88. Mongeon, M. S.: Adequacy, degree and place of emphasis in attainment of management competencies by dietetic students. Unpublished M.S. thesis, Kansas State Univ., 1964.
89. Bedford, M. R.: Competencies and related behaviors for the entry level dietitian. Unpublished Ph.D. dissertation, Kansas State Univ., 1975.
90. Bailey, G. D.: An educator's notebook on competency-based education, In: Calvano, M. A.: Instructional media: a competency-based approach. Manhattan: Kansas State Univ., 1974.
91. Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., and Krathwohl, D. R.: Taxonomy of Educational Objectives. Handbook I: Cognitive Domain. New York: David McKay, 1956.
92. Krathwohl, D. R., Bloom, B. S., and Masia, B. B.: Taxonomy of Educational Objectives. Handbook II: Affective Domain. New York: David McKay, 1964.
93. Simpson, E. J.: The classification of educational objectives: psychomotor domain. *Ill. Teacher of Home Econ.* 10: 145, 1966.
94. Gale, L. E. and Pol, G.: Competence: a definition and conceptual scheme. *Educ. Tech.* 15: 19 (June), 1975.
95. Weigand, J., ed.: Developing Teacher Competencies. 1st ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971.
96. Mager, R. F.: Preparing Objectives for Programmed Instruction. San Francisco: Fearon, 1962.

97. Davies, I. K.: Competence Based Learning: Technology, Management, and Design. 1st ed. New York: McGraw-Hill Book Co., 1973.
98. Plavcan, P.: Progress on the "Competencies of the Entry Level Generalist Dietitian." 1. Minutes of Special Program Committee Meeting, 2. Background information, 3. Questionnaire. (Memorandum and attachments to Ad. Committee, Dietetic Internship Council, Aug. 8, 1974), Chicago: The Am. Dietet. A.
99. Nie, N. H., Hull, C. J., Jenkins, J. G., Steinbrinner, K., and Bent, D. H.: Statistical Package for the Social Sciences. 2nd ed. New York: McGraw-Hill Book Co., 1975.
100. Harmon, H. H.: Modern Factor Analysis. 2nd ed. Chicago: The Univ. of Chicago Press, 1967.
101. Roscoe, J. T.: Fundamental Research Statistics for the Behavioral Sciences. New York: Holt, Rinehart & Winston, Inc., 1969.
102. Position Paper on the Administrative Dietitian, unpublished paper adopted at the Foodservice Systems Education Council, 8th Conference, Denver, Colorado, Mar., 1975, for submission to the ADA Executive Board.

APPENDIXES

APPENDIX A

Competencies of the Entry-Level Generalist Dietitian

COMPETENCIES OF THE ENTRY-LEVEL GENERALIST DIETITIAN¹

The entry-level dietitian is defined as an individual who has completed all of the preprofessional requirements (undergraduate plus internship, coordinated undergraduate, or undergraduate plus traineeship) and has entered the profession in a first position. The generalist entry-level professional is competent to practice primarily in two areas of dietetics, clinical dietetics and administrative dietetics. The generalist is not viewed as having sufficient competencies to practice exclusively in a community nutrition or public health position although some basic competencies in the planning of preventive and consumer-oriented nutrition programs have been developed.

However, regardless of area of practice the competencies required reflect the primary role of a manager and therefore, they are organized according to the elements of the management process. The competencies as developed also assume that the entry-level generalist has been employed in the first position for a period of at least two months and has become thoroughly familiar with the institution, the department or program, and the area for which he/she is responsible.

COMPETENCIES REQUIRED FOR PRACTICE IN THE AREA OF ADMINISTRATIVE DIETETICS

The first position in administrative dietetics is viewed as a staff position with responsibility for management of an area or unit such as food production and purchasing or patient service. The entry-level administrative dietitian would be responsible to an administrative specialist whose actual position would depend on the size and type of department or program. However, the entry-level generalist would not normally be viewed as having the total responsibility for administrative management and the competencies developed relate to management within the entry-level dietitian's sphere of responsibility and not the entire department. The expected level of competence has been partially defined by indicating competencies which the entry-level individual should be able to perform independently and competencies which would be performed either in cooperation with or under the direction of the administrative specialist. In the latter case it would not be expected that the entry-level generalist would have a sufficient degree of competence to function independently and therefore, would require guidance and support from the specialist.

Planning and Organization in Administrative Management

1. Designs long and short range objectives which relate to the departmental and institutional objectives and capabilities.

¹By A. Cagguila (10); distributed at the Dietetic Internship Council, February, 1974.

2. Cooperates with the administrative specialist in the design of operational systems which support objectives.
3. Develops appropriate policies and procedures which are consistent with the type and layout of the institution, personnel availability, and characteristics of patient or client population.
4. Develops job descriptions and specifications for personnel.
5. Cooperates with the administrative specialist in the planning of orientation and in-service training programs for all personnel involved with food service.
6. Surveys and obtains appropriate training materials (audio-visual and written).
7. Plans menus which:
 - a. incorporate principles of good menu planning, i.e. adequate nutritional content color, texture, shape, and variety.
 - b. incorporate special nutritional and/or taste requirements of individuals or groups within the institution or program.
 - c. conform to budget and/or cost requirements, equipment, time, personnel availability, and type and location of heat support system(s).
8. In cooperation with the administrative specialist designs methods for evaluating client acceptance.
9. Plans a budget which conforms to departmental or program financial requirements.
10. Develops standardized recipes to provide a consistent basis for quality and quantity control.
11. Determines the basis and form for daily food production planning.
12. Derives man-hour requirements which relate to menu and budget specifications.
13. Plans a master schedule for personnel.
14. Develops purchasing specifications which insure quality and quantity control.
15. Under the direction of the administrative specialist designs a non-computerized or computerized system for purchasing controls.
16. Plans a sanitation schedule and procedures which conform to state and local regulations.
17. Determines and justifies specifications for new equipment needed.

Staffing in Administrative Management

1. Cooperates with the administrative specialist in the:
 - a. interviewing and selection of administrative personnel such as food service supervisors and/or aides.
 - b. orientation of new administrative personnel.
 - c. continuing in-service training of administrative personnel.

Direction in Administrative Management

1. Utilizes management techniques such as management by objectives.
2. Implements policies and procedures in appropriate areas.
3. Coordinates and integrates:
 - a. systems within area to systems in other areas of the department (example: food production systems to food service systems).
 - b. systems within area to appropriate interdepartmental systems (example: food delivery systems to nursing service systems and procedures).
 - c. utilization of labor, equipment, and personnel within area.
4. Delegates appropriate functions (example: daily food production planning, daily supervision of personnel or daily supervision of tray service) to supervisory personnel such as the food service supervisor.
5. Maintains effective communication with personnel through regular conferences and meetings.
6. Encourages and motivates personnel to provide optimal food service by example and adequate reinforcement.
7. Uses effective merchandising techniques in the presentation of food to patients and/or clients (example: menu design).
8. Identifies state, local, and federal labor laws as well as institutional personnel policies which relate to personnel management.
9. Utilizes appropriate management practices during union organization periods.

Control and Evaluation in Administrative Management

1. Maintains quality and quantity controls through:
 - a. routine monitoring of food items produced and served.
 - b. consistent supervision of personnel and the identification of factors which influence the productivity and performance of personnel.
 - c. routine monitoring of receiving, storage, and sanitation procedures.

2. Conducts task analyses and work sampling studies to provide a basis for developing new and evaluating existing job descriptions and specifications.
3. Utilizes the performance appraisal as an evaluation as well as a motivational tool for personnel.
4. Identifies and analyzes problems related to area.
5. With appropriate personnel modifies systems and/or procedures to solve problems within area.
6. Analyzes menu as to nutritional content, cost, and client acceptance, and modifies menu where result of analysis indicate it is necessary to do so.
7. Maintains accurate and appropriate records for personnel management, fiscal control, and reporting purposes.
8. Routinely prepares accurate and appropriate reports.
9. Maintains current knowledge of new methods and systems in administrative management.
10. Consistently evaluates effectiveness of systems and procedures which are utilized.
11. Cooperates with the administrative specialist in the:
 - a. redesign of systems, and in the preparation of proposals to present, explain, and justify the proposed changes.
 - b. implementation of new systems.

COMPETENCIES REQUIRED FOR PRACTICE IN THE AREA OF CLINICAL DIETETICS

The first position for the generalist entry-level dietitian in clinical dietetics is viewed as a staff position with responsibility for clinical nutrition care management of an area or unit. This individual would be supervised by a clinical specialist who would have the total responsibility for clinical nutrition management within the institution or program. In addition, the entry-level generalist would not be viewed as having sufficient competency to exclusively manage the nutrition care in specialized units such as renal or metabolic units. Management of these would require an individual with specialized training.

In the following the competencies are written in terms of clinical management for individual care; however, the process and the competencies required would be the same for the management of group care.

Planning and Organization for the Provision of Nutrition Care

1. Identifies individuals and/or groups within sphere of responsibility who require nutrition care.
2. Compiles relevant information from appropriate sources (chart, nursing care plan, members of the health team such as the physician, nurse, and social worker, community agencies, and the patient or client) necessary to make a nutritional assessment.
3. Analyzes previous nutritional intake for nutritional adequacy and similarity to proposed pattern indicated by recommended modification.
4. Distinguishes and relates pertinent aspects of the individual's medical status (medical history, laboratory diagnostic data, drug treatment and present medical symptoms) to nutritional planning.
5. Evaluates individual's learning ability, previous knowledge of nutritional modification(s), life style, motivational level, flexibility, acceptance of medical condition, and possible changes in nutrition care which may result from change in position in life cycle.
6. Utilizing information collected from assessment (competencies two through five) develops a plan for the provision of optimal nutrition care which identifies long and short range objectives and methods, materials, personnel, and time sequence to be utilized in the delivery of care.
7. Plans for the utilization of alternate methods and/or systems for nutrition education (group classes, programmed learning materials, audio-visual materials, etc.). Depending on the method, the entry-level generalist's responsibility for total planning would vary. With group classes he/she would have the competencies to independently plan and implement; however, with other methods such as development of programmed learning units or other types of educational packages he/she may cooperate with the clinical specialist or other specialists in the development or utilize existing material if it is appropriate.
8. Surveys available materials and obtains those materials necessary for the implementation of nutrition care.
9. Cooperates with the clinical specialist in the:
 - a. planning of nutritional guidelines and/or policies (i.e., diet manual, nutritional guidelines, and policies and procedures related to the provision of nutrition care) consistent with the objectives of the institution, and current nutrition knowledge.
 - b. development of staffing patterns, job descriptions and specifications for individuals (dietitians, technicians, and clerks) involved in the provision of clinical nutrition care.
 - c. planning and coordination of orientation and in-service training for all individuals involved in the provision of clinical nutrition care.

10. Identifies the need for community related or community based programs to provide preventive nutrition programs and long-term interventive nutrition care.

11. Identifies pertinent legislation and sources of outside funding which would influence the provision of nutrition care in the institution and the community.

12. Cooperates with the clinical specialist and other specialists such as the public health nutritionist in the design of community related programs to provide preventive or interventive nutrition care.

Staffing for the Provision of Nutrition Care

1. Cooperates with the clinical specialist in the:
 - a. interviewing and selection of clinical personnel, i.e., technician and clerk.
 - b. orientation of new clinical personnel.
 - c. continuing in-service training of clinical personnel.

Direction of Clinical Nutrition Care

1. Communicates orally and via written communication such as chart notes pertinent aspects of the nutrition care plan to appropriate clinical personnel, foodservice personnel, and other health team members.

2. Assigns nutrition care related tasks to appropriate personnel (according to the nutrition care plan) and coordinates the performance of these tasks. The delegation of these tasks will differ depending upon the requirements of the individual to whom care is directed, type of institution, and availability of supportive personnel. For example, in most cases a clerk can be assigned the task of collecting and tallying menus while the technician is competent to plan and write less complex nutritional modifications. However, in an individual with a serious condition such as cirrhosis with impending hepatic coma the dietitian would need to assess daily progress, plan daily for nutritional intake, and record daily in the chart. Therefore, for complex nutritional problems the dietitian would not delegate the responsibilities in the same way as in a less complex case.

3. Serves as a nutritional consultant to other health team members by providing nutritional information, recommendations for nutrition care and appropriate materials.

4. Participates in health team activities such as case conferences, medical rounds, and Grand Rounds.

5. Provides and directs nutrition care through individual counselling, group counselling, and alternate methods such as audio-visual programming. The conditions dictating the degree of direct involvement on the part of the dietitian are the same as outlined above; i.e., requirements of

individual to whom care is directed, type of institution, and availability of supportive personnel.

6. Encourages and motivates personnel to provide optimal care by example and adequate reinforcement.

7. Utilizes community related or community based institutions or programs to meet long-range objectives of nutrition care.

8. Serves as an institutional or community resource for nutrition oriented consumer information.

Control and Evaluation of Clinical Nutrition Care

1. Supervises the daily performance of personnel directly involved in the provision of clinical nutrition care.

2. Regularly monitors and records in the nutrition care plan and chart the progress of individuals to whom care is directed.

3. Identifies the need for changes in the nutrition care objectives and methods for delivery of care.

4. Communicates changes to appropriate clinical personnel or recommends changes to other health team members such as the physician.

5. Refers individuals to appropriate outside agencies or programs for continuance of care, and provides these agencies with information related to previous care.

6. Maintains adequate records and a system of regularly reporting the services provided by the clinical nutrition care unit.

7. Continuously evaluates the effectiveness of clinical nutrition care services.

8. Maintains current knowledge of new methods and systems for the provision of nutrition care.

9. Analyzes new systems and identifies those which relate to his/her area and program.

10. In cooperation with the clinical specialist:
 a. prepares a proposal to explain and justify the need for new systems.
 b. implements new systems.

SEVERAL REFERENCES PERTINENT TO COMPETENCY DEVELOPMENT

1. Anderson, R.D., Soptick, J.M., Rogers, W.T., and Worthen, B.R. An Analysis and Interpretation of Tasks and Competencies Required of Personnel Conducting Exemplary Research and Research-Related Activities in Education. Univ. of Colorado. Aug. 1971.
2. Baltimore, J.M. A Study of Professional Education Competencies of Public School District Vocational Education Leaders. Ph.D. Diss., Oregon St. Univ. 1972.
3. Carty, D.M. "Process Model for Using Results of Competency Studies." Agric. Ed. 44:6. Dec. 1971. pp. 154-156.
4. Merritt, D.L. "Performance Objectives: A Beginning, Not an End." Contemp. Ed. 43: April, 1971. pp. 209-212.
5. Terry, D.R., Thompson, R.L., and Evans, R.N. Competencies for Teachers--Vocational Education Shows the Way. Final Report of Project No. PDT-A2-171. Nat. Center for Improvement of Educational Systems, Career Education Branch, U.S. Office of Education. June 1972.

APPENDIX B

Pretest Correspondence and Instrument

Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

November 15, 1974

Competency-based education is the basis of Plan IV defined by The American Dietetic Association for education of dietitians. A list of competencies for the entry-level generalist dietitian has been developed; competencies for other specialties are also in developmental stages. We are interested in getting the reactions of practitioners to these statements--what do you expect of the entry level professional. This will give you the opportunity to express your beliefs about the performance expectations of new graduates as compared to experienced practitioners and will help us to examine the adequacy of the competencies.

This phase of the project is a pilot project for a larger study involving a national sample of dietitians. We need your help in evaluating the instrument. A brief introduction to this material is included with the questionnaire. All information will be confidential, as responses are identified by code number only for follow-up purposes. If you have any additional information or comments, please feel free to express them at the end of the questionnaire. When you have completed the questionnaire, please place it in the enclosed envelope and drop in the mail. Thank you for your cooperation and time in answering the questionnaire.

Sincerely,

Allene G. Vaden, Ph.D., R.D.
Assistant Professor
Department of
Institutional Management

Marilyn Loyd
Graduate Assistant
Department of
Institutional Management

Competencies of the Entry-level Generalist Dietitian¹

The entry-level dietitian is defined as an individual who has completed all of the preprofessional requirements (undergraduate plus internship, coordinated undergraduate, or undergraduate plus traineeship) and has entered the profession in a first position. The generalist entry-level professional is competent to practice primarily in two areas of dietetics, clinical dietetics and administrative dietetics. The competencies as developed also assume that the entry-level generalist has been employed in the first position for a period of at least two months and has become thoroughly familiar with the institution, the department or program, and the area for which he/she is responsible.

The first position in administrative dietetics is viewed as staff position with responsibility for management of an area or unit such as food production and purchasing or patient service. The entry-level administrative dietitian would be responsible to an administrative specialist. The expected level of competence has been partially defined by indicating competencies which the entry-level individual should be able to perform independently and competencies which would be performed either in cooperation with or under the direction of the administrative specialist.

The first position in clinical dietetics is viewed as a staff position with responsibility for clinical nutrition care management of an area or unit. This individual would be supervised by a clinical specialist who would have the total responsibility for clinical nutrition management within the institution or program. The entry-level generalist would not be viewed as having sufficient competency to exclusively manage the nutrition care in specialized units such as renal or metabolic units.

¹Adapted from material distributed at the Dietetic Internship Council meeting, February 20, 1974.

Department of Institutional Management

Kansas State University

Study of Entry-Level Competencies
for the Generalist Dietitian

1. How many years have you been a member of The American Dietetic Association (ADA)?

☐ 1 year or less
☐ 2 to 5 years
☐ 6 to 10 years
☐ 11 years or more

2. How did you become a member of ADA?

☐ Undergraduate coordinated program
☐ Internship
☐ Traineeship
☐ Work Experience
☐ Advanced Degree

3. What is your most advanced degree?

☐ Bachelor's
☐ Master's

4. Please state the year you received each degree.

☐ Bachelor's
☐ Master's

5. What was your major field of study for each degree?
Please specify.

Field of Study

☐ Bachelor's
☐ Master's

6. How long have you been employed in the profession?

☐ less than 5 years
☐ 5 to 10 years
☐ 11 to 25 years
☐ more than 25 years

7. Please check the classification that best describes your present position.

☐ Director of Dietary Department
☐ Head administrative dietitian
☐ Head clinical dietitian
☐ Administrative assistant
☐ Clinical assistant
☐ Teaching dietitian
☐ Community dietitian
☐ Research dietitian

8. Number of dietitians on the staff (including yourself): _____

9. How many years have you been employed in your present position?

☐ 1 year or less
☐ 2 to 5 years
☐ 6 to 10 years
☐ 11 or more years

10. What is the size of the hospital in which you are employed?

☐ under 100 beds
☐ 101 to 300 beds
☐ 301 to 500 beds
☐ 501 to 700 beds
☐ over 700 beds

EVALUATION OF COMPETENCIES¹ OF THE ENTRY-LEVEL GENERALIST DIETITIAN

Describe your reactions to each of these competencies by indicating (A) the essentiality for the entry-level dietitian, (P) the degree of supervision required if part of performance expectations for the entry-level dietitian, (C) the essentiality for the experienced dietitian, and (D) the difficulty in judging the competency in performance evaluation of the entry-level dietitian.

Use these keys and circle the scale number that reflects your reactions.

A. ESSENTIALITY FOR THE ENTRY-LEVEL DIETITIAN

- 1 = Could not expect of entry-level dietitian
- 2 = Desirable, but not essential for the entry-level dietitian
- 3 = Essential for the entry-level dietitian

B. DEGREE OF SUPERVISION

- 1 = Could perform with close supervision
- 2 = Could perform with general supervision
- 3 = Could perform with little or no supervision

C. ESSENTIALITY FOR THE EXPERIENCED DIETITIAN

(A dietitian who has worked three or more years.)

- 1 = Could not expect of experienced dietitian
- 2 = Desirable, but not essential for the experienced dietitian
- 3 = Essential for the experienced dietitian

D. EVALUATION OF THE COMPETENCY IN THE ENTRY-LEVEL DIETITIAN

- 1 = Very difficult to evaluate performance of competency
- 2 = Might be difficult to evaluate performance of competency
- 3 = Could definitely evaluate performance of competency

COMPETENCIES FOR PRACTICE IN ADMINISTRATIVE DIETETICS	ESSENTIALITY A ENTRY-LEVEL	DEGREE OF B SUPERVISION	ESSENTIALITY C EXPERIENCED	PERFORMANCE D EVALUATION
1. Designs long and short range objectives which relate to the departmental and institutional objectives and capabilities.	1 2 3	1 2 3	1 2 3	1 2 3
2. Designs operational systems which support objectives.	1 2 3	1 2 3	1 2 3	1 2 3
3. Develops appropriate policies and procedures which are consistent with the type and layout of the institution, personnel availability, and characteristics of patient or client population.	1 2 3	1 2 3	1 2 3	1 2 3
4. Develops job descriptions and specifications for personnel.	1 2 3	1 2 3	1 2 3	1 2 3
5. Plans orientation and in-service training programs for all personnel involved with food service.	1 2 3	1 2 3	1 2 3	1 2 3
6. Surveys and obtains appropriate training materials (audio-visual and written).	1 2 3	1 2 3	1 2 3	1 2 3
7. Plans menus which:				
7a. incorporate principles of good menu planning, i.e. adequate nutritional content, color, texture, shape, and variety.	1 2 3	1 2 3	1 2 3	1 2 3
7b. incorporate special nutritional and/or taste requirements of individuals or groups within the institution or program.	1 2 3	1 2 3	1 2 3	1 2 3
7c. conform to budget and/or cost requirements, equipment, time, personnel availability, and type and location of heat support system(s).	1 2 3	1 2 3	1 2 3	1 2 3
8. Designs methods for evaluating client acceptance.	1 2 3	1 2 3	1 2 3	1 2 3
9. Plans a budget which conforms to departmental or program financial requirements.	1 2 3	1 2 3	1 2 3	1 2 3
10. Develops standardized recipes to provide a consistent basis for quality and quantity control.	1 2 3	1 2 3	1 2 3	1 2 3
11. Determines the basis and form for daily food production planning.	1 2 3	1 2 3	1 2 3	1 2 3
12. Derives man-hour requirements which relate to menu and budget specifications.	1 2 3	1 2 3	1 2 3	1 2 3
13. Plans a master schedule for personnel.	1 2 3	1 2 3	1 2 3	1 2 3
14. Develops purchasing specifications which insure quality and quantity control.	1 2 3	1 2 3	1 2 3	1 2 3
15. Designs a non-computerized or computerized system for purchasing controls.	1 2 3	1 2 3	1 2 3	1 2 3
16. Plans sanitation schedules and procedures which conform to state and local regulations.	1 2 3	1 2 3	1 2 3	1 2 3

1 Adapted from material distributed at the Dietetic Internship Council meeting, February 20, 1974

COMPETENCIES FOR PRACTICE IN ADMINISTRATIVE DIETETICS, CONT. A	ESSENTIALITY ENTRY-LEVEL	DEGREE OF SUPERVISION	ESSENTIALITY EXPERIENCED	PERFORMANCE EVALUATION
17. Determines and justifies specifications for new equipment needed.	1 2 3	1 2 3	1 2 3	1 2 3
18. Performs the following personnel functions:				
18a. interviewing and selection of administrative personnel such as food service supervisors and/or aides.	1 2 3	1 2 3	1 2 3	1 2 3
18b. orientation of new administrative personnel.	1 2 3	1 2 3	1 2 3	1 2 3
18c. continuing in-service training of administrative personnel.	1 2 3	1 2 3	1 2 3	1 2 3
19. Utilizes management techniques such as management by objectives.	1 2 3	1 2 3	1 2 3	1 2 3
20. Implements policies and procedures in appropriate areas.	1 2 3	1 2 3	1 2 3	1 2 3
21. Coordinates and integrates:				
21a. systems within area to systems in other areas of the department (example: food production systems to food service systems).	1 2 3	1 2 3	1 2 3	1 2 3
21b. systems within area to appropriate interdepartmental systems (example: food delivery systems to nursing service systems and procedures).	1 2 3	1 2 3	1 2 3	1 2 3
21c. utilization of labor, equipment, and personnel within area.	1 2 3	1 2 3	1 2 3	1 2 3
22. Delegates appropriate functions (example: daily food production planning, daily supervision of personnel or daily supervision of tray service) to supervisory personnel such as the food service supervisor.	1 2 3	1 2 3	1 2 3	1 2 3
23. Maintains effective communication with personnel through regular conferences and meetings.	1 2 3	1 2 3	1 2 3	1 2 3
24. Encourages and motivates personnel to provide optimal food service by example and adequate reinforcement.	1 2 3	1 2 3	1 2 3	1 2 3
25. Uses effective merchandising techniques in the presentation of food to patients and/or clients (example: menu design).	1 2 3	1 2 3	1 2 3	1 2 3
26. Identifies state, local, and federal labor laws as well as institutional personnel policies which relate to personnel management.	1 2 3	1 2 3	1 2 3	1 2 3
27. Utilizes appropriate management practices during union organization periods.	1 2 3	1 2 3	1 2 3	1 2 3
28. Maintains quality and quantity controls through:				
28a. routine monitoring of food items produced and served.	1 2 3	1 2 3	1 2 3	1 2 3
28b. consistent supervision of personnel and the identification of factors which influence the productivity and performance of personnel.	1 2 3	1 2 3	1 2 3	1 2 3
28c. routine monitoring of receiving, storage, and sanitation procedures.	1 2 3	1 2 3	1 2 3	1 2 3
29. Conducts task analyses and work sampling studies to provide a basis for developing new and evaluating existing job descriptions and specifications.	1 2 3	1 2 3	1 2 3	1 2 3
30. Utilizes the performance appraisal as an evaluation as well as a motivational tool for personnel.	1 2 3	1 2 3	1 2 3	1 2 3
31. Identifies and analyzes problems related to area.	1 2 3	1 2 3	1 2 3	1 2 3
32. With appropriate personnel, modifies systems and/or procedures to solve problems within area.	1 2 3	1 2 3	1 2 3	1 2 3
33. Analyzes menu as to nutritional content, cost, and client acceptance, and modifies menu where result of analysis indicate it is necessary to do so.	1 2 3	1 2 3	1 2 3	1 2 3
34. Maintains accurate and appropriate records for personnel management, fiscal control, and reporting purposes.	1 2 3	1 2 3	1 2 3	1 2 3
35. Routinely prepares accurate and appropriate reports.	1 2 3	1 2 3	1 2 3	1 2 3
36. Maintains current knowledge of new methods and systems in administrative management.	1 2 3	1 2 3	1 2 3	1 2 3
37. Consistently evaluates effectiveness of systems and procedures which are utilized.	1 2 3	1 2 3	1 2 3	1 2 3
38. Redesigns systems and prepares proposals to present, explain, and justify the proposed changes.	1 2 3	1 2 3	1 2 3	1 2 3
39. Implements new systems.	1 2 3	1 2 3	1 2 3	1 2 3

COMPETENCIES FOR PRACTICE IN CLINICAL NUTRITION	ESSENTIALITY A ENTRY-LEVEL	DEGREE OF B SUPERVISION	ESSENTIALITY C EXPERIENCED	PERFORMANCE D EVALUATION
1. Identifies individuals and/or groups within sphere of responsibility who require nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
2. Compiles relevant information from appropriate sources (chart, nursing care plan, members of the health team such as the physician, nurse, and social worker, community agencies, and the patient or client) necessary to make a nutritional assessment.	1 2 3	1 2 3	1 2 3	1 2 3
3. Analyzes previous nutritional intake for nutritional adequacy and similarity to proposed pattern indicated by recommended modification.	1 2 3	1 2 3	1 2 3	1 2 3
4. Distinguishes and relates pertinent aspects of the individual's medical status (medical history, laboratory diagnostic data, drug treatment and present medical symptoms) to nutritional planning.	1 2 3	1 2 3	1 2 3	1 2 3
5. Evaluates individual's learning ability, previous knowledge of nutritional modification(s), life style, motivational level, flexibility, acceptance of medical condition, and possible changes in nutrition care which may result from change in position in life cycle.	1 2 3	1 2 3	1 2 3	1 2 3
6. Utilizing information collected from assessment (clinical competencies two through five) and develops a plan for the provision of optimal nutrition care which identifies long and short range objectives and methods, materials, personnel, and time sequence to be utilized in the delivery of care.	1 2 3	1 2 3	1 2 3	1 2 3
7. Plans for the utilization of alternate methods and/or systems for nutrition education (group classes, programmed learning materials, audio-visual materials, etc.)	1 2 3	1 2 3	1 2 3	1 2 3
8. Surveys available materials and obtains those materials necessary for the implementation of nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
9. Plans nutritional guidelines and/or policies (i.e., diet manual, nutritional guidelines, and policies and procedures related to the provision of nutrition care) consistent with the objectives of the institution, and current nutrition knowledge.	1 2 3	1 2 3	1 2 3	1 2 3
10. Develops staffing patterns, job descriptions and specifications for individuals (dietitians, technicians, and clerks) involved in the provision of clinical nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
11. Plans and coordinates orientation and in-service training for all individuals involved in the provision of clinical nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
12. Identifies the need for community related or community based programs to provide preventive nutrition programs and long-term interventional nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
13. Identifies pertinent legislation and sources of outside funding which would influence the provision of nutrition care in the institution and the community.	1 2 3	1 2 3	1 2 3	1 2 3
14. Cooperates with other specialists (such as the public health nutritionist) in the design of community related programs to provide preventive or interventional nutrition care.	1 2 3	1 2 3	1 2 3	1 2 3
15. Performs the following personnel functions related to staffing for nutritional care:				
15a. interviewing and selection of clinical personnel, i.e., technician and clerk.	1 2 3	1 2 3	1 2 3	1 2 3
15b. orientation of new clinical personnel	1 2 3	1 2 3	1 2 3	1 2 3
15c. continuing in-service training of clinical personnel	1 2 3	1 2 3	1 2 3	1 2 3
16. Communicates orally and via written communication such as chart notes, pertinent aspects of the nutrition care plan to appropriate clinical personnel, food service personnel, and other health team members.	1 2 3	1 2 3	1 2 3	1 2 3
17. Assigns nutrition care related tasks to appropriate personnel (according to the nutrition care plan) and coordinates the performance of these tasks.	1 2 3	1 2 3	1 2 3	1 2 3
18. Serves as a nutritional consultant to other health team members by providing nutritional information, recommendations for nutrition care and appropriate materials.	1 2 3	1 2 3	1 2 3	1 2 3
19. Participates in health team activities such as case conferences, medical rounds and Grand Rounds.	1 2 3	1 2 3	1 2 3	1 2 3

COMPETENCIES FOR PRACTICE IN CLINICAL DIETETICS, CONT.		ESSENTIALITY A ENTRY-LEVEL			DEGREE OF B SUPERVISION			ESSENTIALITY C EXPERIENCED			PERFORMANCE D EVALUATION		
20.	Provides and directs nutrition care through individual counselling, group counselling, and alternate methods such as audio-visual programming.	1	2	3	1	2	3	1	2	3	1	2	3
21.	Encourages and motivates personnel to provide optimal care by example and adequate reinforcement.	1	2	3	1	2	3	1	2	3	1	2	3
22.	Utilizes community related or community based institutions or programs to meet long-range objectives of nutrition care.	1	2	3	1	2	3	1	2	3	1	2	3
23.	Serves as a institutional or community resource for nutrition oriented consumer information.	1	2	3	1	2	3	1	2	3	1	2	3
24.	Supervises the daily performance of personnel directly involved in the provision of clinical nutrition care.	1	2	3	1	2	3	1	2	3	1	2	3
25.	Regularly monitors and records in the nutrition care plan and chart the progress of individuals to whom care is directed.	1	2	3	1	2	3	1	2	3	1	2	3
26.	Identifies the need for changes in the nutrition care objectives and methods for delivery of care.	1	2	3	1	2	3	1	2	3	1	2	3
27.	Communicates changes to appropriate clinical personnel or recommends changes to other health team members such as the physician.	1	2	3	1	2	3	1	2	3	1	2	3
28.	Refers individuals to appropriate outside agencies or programs for continuance of care, and provides these agencies with information related to previous care.	1	2	3	1	2	3	1	2	3	1	2	3
29.	Maintains adequate records and a system of regularly reporting the services provided by the clinical nutrition care unit.	1	2	3	1	2	3	1	2	3	1	2	3
30.	Continuously evaluates the effectiveness of clinical nutrition care services.	1	2	3	1	2	3	1	2	3	1	2	3
31.	Maintains current knowledge of new methods and systems for the provision of nutrition care.	1	2	3	1	2	3	1	2	3	1	2	3
32.	Analyzes new systems and identifies those which relate to his/her area and program.	1	2	3	1	2	3	1	2	3	1	2	3
33.	Prepares a proposal to explain and justify the need for new systems.	1	2	3	1	2	3	1	2	3	1	2	3
34.	Implements new systems.	1	2	3	1	2	3	1	2	3	1	2	3

Department of Institutional Management

Kansas State University

Evaluation of the Study

1. The questionnaire was difficult to answer.

_____ yes
_____ no

Comments:

2. What suggestions do you have for revising the questionnaire?

_____ leave questionnaire as it is
_____ suggestions (specify)

3. What additions would you suggest?

_____ none
_____ as listed below

4. What would you omit on the questionnaire:

_____ nothing
_____ as indicated below

APPENDIX C

Research Instrument: Administrative Form



Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

STUDY OF ENTRY LEVEL PERFORMANCE OF THE GENERALIST DIETITIAN

1. In which area of the country do you live?
 - ☐ Northeast
 - ☐ Southeast
 - ☐ Middlewest
 - ☐ Southwest
 - ☐ West
2. How many years have you been a member of The American Dietetic Association (ADA)?
 - ☐ 1 year or less
 - ☐ 2 to 5 years
 - ☐ 6 to 10 years
 - ☐ 11 to 20 years
 - ☐ over 20 years
3. How did you become a member of ADA?
 - ☐ Coordinated Undergraduate Program
 - ☐ Internship
 - ☐ Traineeship
 - ☐ Work Experience or Preplanned Experience
 - ☐ Advanced Degree
4. When did you receive your degree(s)?
 - ☐ Bachelor's
 - ☐ Master's
 - ☐ Ph.D.
5. What was your major field of study for each degree? Please specify.
 - ☐ Bachelor's
 - ☐ Master's
 - ☐ Ph.D.
6. How long have you been employed in the profession?
 - ☐ less than 5 years
 - ☐ 5 to 10 years
 - ☐ 11 to 25 years
 - ☐ more than 25 years
7. Please check the classification that best describes your present position.
 - ☐ Director of Dietary Department
 - ☐ Head administrative dietitian
 - ☐ Head clinical dietitian
 - ☐ Administrative staff dietitian
 - ☐ Clinical staff dietitian
 - ☐ Generalist (both administrative and clinical dietitian)
 - ☐ Other _____
(Please specify)
8. How many years have you been employed in your present position?
 - ☐ 1 year or less
 - ☐ 2 to 5 years
 - ☐ 6 to 10 years
 - ☐ 11 or more years
9. What is the size of the hospital in which you are employed?
 - ☐ under 100 beds
 - ☐ 101 to 300 beds
 - ☐ 301 to 500 beds
 - ☐ over 500 beds
 - ☐ not presently employed in a hospital
10. Number of dietitians on the staff (including yourself) _____

ENTRY-LEVEL PERFORMANCE OF THE GENERALIST DIETITIAN: ADMINISTRATIVE PRACTICE¹

This is a study of hospital dietitian's performance expectations of the entry-level dietitian who graduated from a generalist educational program. What are the essential skills for the entry-level professional? How much supervision of performance is required? Please read the following statements and carefully rate each statement using the scales below. You will note that some statements may seem very similar; e.g., one with developing systems and another with implementation. The entry-level dietitian may be expected to perform in one aspect, but not the other. Circle the numbers that reflect your opinions. Please make any comments in the space provided.

Scale A ESSENTIALITY FOR THE ENTRY-LEVEL DIETITIAN

- 1 = Could not expect of the entry-level dietitian
- 2 = Desirable, but not essential for the entry-level dietitian
- 3 = Essential for the entry-level dietitian

Scale B DEGREE OF SUPERVISION

- 0 = Not expected of the entry-level dietitian
- 1 = Could perform with close supervision
- 2 = Could perform with general supervision
- 3 = Could perform with little or no supervision

<u>ENTRY-LEVEL PERFORMANCE IN ADMINISTRATIVE DIETETICS</u>	<u>Scale A ESSENTIALITY ENTRY-LEVEL</u>	<u>Scale B DEGREE OF SUPERVISION</u>	<u>COMMENTS</u>
1. Develops long and short range departmental goals and objectives.	1 2 3	0 1 2 3	
2. Maintains current knowledge of new methods and systems in administrative management.	1 2 3	0 1 2 3	
3. Develops systems to support goals.	1 2 3	0 1 2 3	
4. Consistently evaluates effectiveness of systems and procedures which are utilized.	1 2 3	0 1 2 3	
5. Redesigns systems and prepares proposals to present, explain, and justify the proposed changes.	1 2 3	0 1 2 3	
6. Implements new systems.	1 2 3	0 1 2 3	
7. Develops policies and procedures that are consistent with the institution, personnel availability, and characteristics of patient.	1 2 3	0 1 2 3	
8. Implements policies and procedures in appropriate areas.	1 2 3	0 1 2 3	
9. Develops job descriptions and specifications for personnel.	1 2 3	0 1 2 3	
10. Plans orientation and in-service training programs for all personnel involved with food service.	1 2 3	0 1 2 3	
11. Performs the following personnel functions:			
11a. interviewing and selection of administrative personnel such as food service supervisors and/or aides.	1 2 3	0 1 2 3	
11b. orientation of new administrative personnel.	1 2 3	0 1 2 3	
11c. continuing in-service training of administrative personnel.	1 2 3	0 1 2 3	
12. Surveys and obtains appropriate training materials (audio-visual and written).	1 2 3	0 1 2 3	

¹Adapted from material distributed at the Dietetic Internship Council meeting, February 20, 1974.

	Scale A ESSENTIALITY ENTRY-LEVEL	Scale B DEGREE OF SUPERVISION	COMMENTS
13. Plans menus which:			
13a. incorporate principles of good menu planning, i.e. adequate nutritional content, color, texture, shape, and variety.	1 2 3	0 1 2 3	
13b. incorporate special nutritional and/or taste requirements of individuals or groups within the institution or program.	1 2 3	0 1 2 3	
13c. conform to budget and/or cost requirements, equipment, time, and personnel availability.	1 2 3	0 1 2 3	
14. Analyses menu as to nutritional content, cost, and client acceptance, and modifies menu where result of analysis indicate it is necessary to do so.	1 2 3	0 1 2 3	
15. Develops methods for evaluating client acceptance.	1 2 3	0 1 2 3	
16. Develops standardized recipes to provide a consistent basis for quality and quantity control.	1 2 3	0 1 2 3	
17. Plans daily food production.	1 2 3	0 1 2 3	
18. Determines man-hour requirements that relate to menu and budget specifications.	1 2 3	0 1 2 3	
19. Plans a master schedule for personnel.	1 2 3	0 1 2 3	
20. Plans a budget that conforms to departmental or program financial requirements.	1 2 3	0 1 2 3	
21. Maintains accurate and appropriate records for personnel management, fiscal control, and reporting purposes.	1 2 3	0 1 2 3	
22. Routinely prepares accurate and appropriate reports.	1 2 3	0 1 2 3	
23. Determines and justifies specifications for new equipment needed.	1 2 3	0 1 2 3	
24. Develops purchasing specifications that insure quality and quantity control.	1 2 3	0 1 2 3	
25. Designs a non-computerized or computerized inventory system.	1 2 3	0 1 2 3	
26. Plans sanitation schedules and procedures that conform to state and local regulations.	1 2 3	0 1 2 3	
27. Coordinates:			
27a. systems within area to systems in other areas of the department (example: food production systems to food service systems).	1 2 3	0 1 2 3	
27b. systems within area to appropriate interdepartmental systems (example: food delivery systems to nursing service systems and procedures).	1 2 3	0 1 2 3	
27c. utilization of labor, equipment, and personnel within area.	1 2 3	0 1 2 3	
28. Delegates appropriate functions (example: daily food production planning, daily supervision of personnel or daily supervision of tray service) to supervisory personnel such as the food service supervisor.	1 2 3	0 1 2 3	
29. Maintains effective communication with personnel through regular conferences and meetings.	1 2 3	0 1 2 3	
30. Encourages and motivates personnel to provide optimal food service by example and adequate reinforcement.	1 2 3	0 1 2 3	

	Scale A ESSENTIALITY ENTRY-LEVEL	Scale B DEGREE OF SUPERVISION	COMMENTS
1. Utilizes management techniques such as management by objectives.	1 2 3	0 1 2 3	
2. Identifies state, local, and federal labor laws as well as institutional personnel policies which relate to personnel management.	1 2 3	0 1 2 3	
3. Utilizes appropriate management practices during union organization periods.	1 2 3	0 1 2 3	
4. Uses effective merchandising techniques in the presentation of food to patients and/or clients (example: menu design).	1 2 3	0 1 2 3	
5. Maintains quality and quantity controls through:			
35a. routine monitoring of food items produced and served.	1 2 3	0 1 2 3	
35b. consistent supervision of personnel and the identification of factors which influence the productivity and performance of personnel.	1 2 3	0 1 2 3	
35c. routine monitoring of receiving, storage, and sanitation procedures.	1 2 3	0 1 2 3	
6. Conducts a task analyses and work sampling studies to provide a basis for developing new and evaluating existing job descriptions and specifications.	1 2 3	0 1 2 3	
7. Utilizes the performance appraisal as an evaluation as well as a motivational tool for personnel.	1 2 3	0 1 2 3	
8. Identifies and analyzes problems related to area.	1 2 3	0 1 2 3	
9. With appropriate personnel, modifies systems and/or procedures to solve problems within area.	1 2 3	0 1 2 3	

Additional comments or suggestions:

APPENDIX D

Research Instrument: Clinical Form



Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

STUDY OF ENTRY LEVEL PERFORMANCE OF THE GENERALIST DIETITIAN

1. In which area of the country do you live?
 - ☐ Northeast
 - ☐ Southeast
 - ☐ Middlewest
 - ☐ Southwest
 - ☐ West
2. How many years have you been a member of The American Dietetic Association (ADA)?
 - ☐ 1 year or less
 - ☐ 2 to 5 years
 - ☐ 6 to 10 years
 - ☐ 11 to 20 years
 - ☐ over 20 years
3. How did you become a member of ADA?
 - ☐ Coordinated Undergraduate Program
 - ☐ Internship
 - ☐ Traineeship
 - ☐ Work Experience or Preplanned Experience
 - ☐ Advanced Degree
4. When did you receive your degree(s)?
 - ☐ Bachelor's
 - ☐ Master's
 - ☐ Ph.D.
5. What was your major field of study for each degree? Please specify.
 - ☐ Bachelor's
 - ☐ Master's
 - ☐ Ph.D.
6. How long have you been employed in the profession?
 - ☐ less than 5 years
 - ☐ 5 to 10 years
 - ☐ 11 to 25 years
 - ☐ more than 25 years
7. Please check the classification that best describes your present position.
 - ☐ Director of Dietary Department
 - ☐ Head administrative dietitian
 - ☐ Head clinical dietitian
 - ☐ Administrative staff dietitian
 - ☐ Clinical staff dietitian
 - ☐ Generalist (both administrative and clinical dietitian)
 - ☐ Other _____
(Please specify)
8. How many years have you been employed in your present position?
 - ☐ 1 year or less
 - ☐ 2 to 5 years
 - ☐ 6 to 10 years
 - ☐ 11 or more years
9. What is the size of the hospital in which you are employed?
 - ☐ under 100 beds
 - ☐ 101 to 300 beds
 - ☐ 301 to 500 beds
 - ☐ over 500 beds
 - ☐ not presently employed in a hospital
10. Number of dietitians on the staff (including yourself) _____

ENTRY-LEVEL PERFORMANCE OF THE GENERALIST DIETITIAN: CLINICAL PRACTICE¹

This is a study of hospital dietitian's performance expectations of the entry-level dietitian who graduated from a generalist educational program. What are the essential skills for the entry-level professional? How much supervision of performance is required? Please read the following statements and carefully rate each statement using the scales below. You will note that some statements may seem very similar; e.g., one with developing systems and another with implementation. The entry-level dietitian may be expected to perform in one aspect, but not the other. Circle the numbers that reflect your opinions. Please make any comments in the space provided.

Scale A ESSENTIALITY FOR THE ENTRY-LEVEL DIETITIAN

- 1 = Could not expect of the entry level dietitian
- 2 = Desirable, but not essential for the entry-level dietitian
- 3 = Essential for the entry-level dietitian

Scale B DEGREE OF SUPERVISION

- 0 = Not expected of the entry-level dietitian
- 1 = Could perform with close supervision
- 2 = Could perform with general supervision
- 3 = Could perform with little or no supervision

ENTRY-LEVEL PERFORMANCE IN CLINICAL DIETETICS

	Scale A ESSENTIALITY ENTRY-LEVEL	Scale B DEGREE OF SUPERVISION	COMMENTS
1. Identifies individuals and/or groups who require nutrition care.	1 2 3	0 1 2 3	
2. Compiles relevant information from appropriate sources (chart, nursing care plan, members of the health team such as the physician, nurse, and social worker, community agencies, and the patient or client) necessary to make a nutritional assessment.	1 2 3	0 1 2 3	
3. Analyzes previous nutritional intake for nutritional adequacy and similarity to proposed pattern indicated by recommended modification.	1 2 3	0 1 2 3	
4. Distinguishes and relates pertinent aspects of the individual's medical status (medical history, laboratory diagnostic data, drug treatment and present medical symptoms) to nutritional planning.	1 2 3	0 1 2 3	
5. Evaluates individual's learning ability, previous knowledge of nutritional modification(s), life style, motivational level, flexibility, acceptance of medical condition, and possible changes in nutrition care that may result from a change in position in life cycle.	1 2 3	0 1 2 3	
6. Utilizing information collected from nutritional assessment and develops a plan for the provision of optimal nutrition care.	1 2 3	0 1 2 3	
7. Regularly monitors and records in the nutrition care plan and chart the progress of individuals to whom care is directed.	1 2 3	0 1 2 3	
8. Plans for the use of alternate methods and/or systems for nutrition education (group classes, programmed learning material, audio-visual materials, etc.)	1 2 3	0 1 2 3	
9. Surveys available materials and obtains those materials necessary for the implementation of nutrition care.	1 2 3	0 1 2 3	

¹Adapted from material distributed at Dietetic Internship Council meeting, February 20, 1974

	Scale A ESSENTIALITY ENTRY-LEVEL	Scale B DEGREE OF SUPERVISION	COMMENTS
10. Plans nutritional guidelines (i.e., diet manual, nutritional guidelines, and policies and procedures related to nutrition care) consistent with the objectives of the institution, and current nutrition knowledge.	1 2 3	0 1 2 3	
11. Develops staffing patterns, job descriptions and specifications for individuals (dietitians, technicians, and clerks) involved in the provision of clinical nutrition care.	1 2 3	0 1 2 3	
12. Performs the following personnel functions related to staffing for nutritional care:			
12a. interviewing and selection of clinical personnel, i.e., technician and clerk.	1 2 3	0 1 2 3	
12b. orientation of new clinical personnel.	1 2 3	0 1 2 3	
12c. continuing in-service training of clinical personnel.	1 2 3	0 1 2 3	
13. Assigns nutrition care related tasks to appropriate personnel (according to the nutrition care plan) and coordinates the performance of these tasks.	1 2 3	0 1 2 3	
14. Supervises the daily performance of personnel directly involved in the provision of clinical nutrition care.	1 2 3	0 1 2 3	
15. Communicates orally and via written communication (such as chart notes) pertinent aspects of the nutrition care plan to appropriate clinical personnel, food service personnel, and other health team members.	1 2 3	0 1 2 3	
16. Encourages and motivates personnel to provide optimal care by example and adequate reinforcement.	1 2 3	0 1 2 3	
17. Provides and directs nutrition care through individual counselling, group counselling, and alternate methods such as audio-visual programming.	1 2 3	0 1 2 3	
18. Maintains adequate records and a system of regularly reporting the services provided by the clinical nutrition care unit.	1 2 3	0 1 2 3	
19. Serves as a nutritional consultant to other health team members by providing nutritional information, recommendations for nutrition care and appropriate materials.	1 2 3	0 1 2 3	
20. Participates in health team activities such as case conferences, medical rounds and Grand Rounds.	1 2 3	0 1 2 3	
21. Identifies the need for changes in the nutrition care objectives and methods for delivery of care.	1 2 3	0 1 2 3	
22. Communicates changes to appropriate clinical personnel or recommends changes to other health team members such as the physician.	1 2 3	0 1 2 3	

	Scale A ESSENTIALITY ENTRY-LEVEL	Scale B DEGREE OF SUPERVISION	COMMENTS
23. Refers individuals to appropriate outside agencies or programs for continuance of care, and provides these agencies with information related to previous care.	1 2 3	0 1 2 3	
24. Continuously evaluates the effectiveness of clinical nutrition care services.	1 2 3	0 1 2 3	
25. Maintains current knowledge of new methods and approaches for the provision of nutrition care.	1 2 3	0 1 2 3	
26. Analyzes new approaches and identifies those which relate to his/her area and program.	1 2 3	0 1 2 3	
27. Prepares a proposal to explain and justify the need for new approaches.	1 2 3	0 1 2 3	
28. Implements new approaches.	1 2 3	0 1 2 3	
29. Identifies the need for community related or community based programs to provide preventive nutrition programs and long-term interventive nutrition care.	1 2 3	0 1 2 3	
30. Identifies pertinent legislation and sources of outside funding that influence the provision of nutrition care in the institution and the community.	1 2 3	0 1 2 3	
31. Cooperates with other specialists (such as the public health nutritionist) in the design of community related programs to provide preventive or interventive nutrition care.	1 2 3	0 1 2 3	
32. Utilizes community related or community based institutions or programs to meet long-range objectives of nutrition care.	1 2 3	0 1 2 3	
33. Serves as a institutional or community resource for nutrition oriented consumer information.	1 2 3	0 1 2 3	

Additional comments or suggestions:

APPENDIX E

Correspondence and Enclosure with Research Instruments

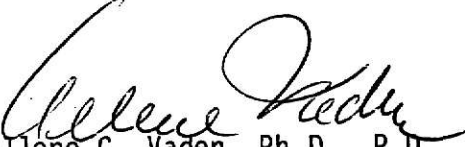
Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

March 26, 1975

Dear ADA Dietitian:


Competency-based education is the basis of Plan IV of The American Dietetic Association for the education of dietitians. A preliminary list of competencies for the entry-level generalist dietitian has been developed. We are interested in getting the reactions of practitioners to these statements--what do you expect of the entry-level professional? This study will give you the opportunity to express your beliefs about your performance expectations of new graduates and will help us to examine the adequacy of the competencies.

The project involves a national sample of dietitians; a cross-section of practicing hospital dietitians was randomly selected from ADA listings. We need your help in the study because we need your input and you represent a segment of the ADA membership. A brief introduction to this material is included with the questionnaire. All information will be confidential; the questionnaire is identified by code number for follow-up purposes only. If you have comments, please feel free to express them. When you have completed the questionnaire, please place it in the enclosed stamped envelope and drop in the mail. This should take only about 20 minutes of your time--will you please return to us by the end of the week? Thank you for your cooperation and time in answering the questionnaire.


Allene G. Vaden, Ph.D., R.D.
Assistant Professor
Department of
Institutional Management

MSL/jj

Sincerely,


Marilyn S. Loyd
Graduate Assistant
Department of
Institutional Management

Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

ENTRY-LEVEL PERFORMANCE OF THE GENERALIST DIETITIAN Introduction and Definitions

Entry-level dietitian: a person who has completed all of the preprofessional requirements (undergraduate plus internship, coordinated undergraduate, or undergraduate plus traineeship) and has entered the profession in a first position. The generalist entry-level professional is competent to practice primarily in two areas of dietetics, clinical dietetics and administrative dietetics.

The competencies or performance statements on the enclosed questionnaire assume that the entry-level generalist has been employed in the first position for a period of at least two months and has become familiar with the institution, the department, and the area for which he/she is responsible. The complete list of competencies includes statements for practice in both administrative and clinical dietetics. Each dietitian in the sample for the study was mailed only one part of the list--either the administrative or the clinical competencies.

The first position in administrative dietetics is viewed as a staff position with responsibility for management of an area or unit such as food production and purchasing or patient service. The entry-level administrative dietitian usually would be responsible to an experienced administrative dietitian. The statements may indicate independent performances of the entry-level dietitian. Others may require the direction of an experienced dietitian.

The first position in clinical dietetics is viewed as a staff position with responsibility for a clinical area or unit. This individual would be supervised by an experienced clinical dietitian who would have the total responsibility for clinical nutrition management within the institution or program. The entry-level generalist would not be viewed as having sufficient competency to exclusively manage the nutrition care in specialized units such as renal or metabolic units. As stated above, some of the performances may be independent; others may require supervision.

Department of Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521

April 16, 1975


Dear ADA Dietitian:

We need your help! A couple of weeks ago you were sent a questionnaire concerning the entry-level generalist dietitian. Because you were randomly chosen from the ADA list of hospital dietitians, we definitely need your input. The findings will not be as representative without your reactions. A number of dietitians have requested information about the results of this study and we will be happy to furnish a summary after the data are compiled.

In the event you did not receive the mailing, let me briefly restate the purpose of the study. We are interested in getting the reactions of practitioners to a list of competencies which describe the performance capabilities of the entry-level dietitian. What do you expect of the entry-level professional? This study will give you the opportunity to express opinions about your expectations of new graduates and will help us to examine the adequacy of the competencies for educational planning.

A brief introduction to the material is included with the questionnaire. All information will be confidential; the questionnaire is identified by code number for follow-up purposes only. If you have comments, please feel free to express them. When you have completed the questionnaire, please place it in the enclosed stamped envelope and drop in the mail. This should take only about 20 minutes of your time--will you please return to us by April 25? Thank you for your cooperation and time in answering the questionnaire.

Your response is critical to assure unbiased representation within the research sample of hospital dietitians.



Allene G. Vaden, Ph.D., R.D.
Assistant Professor
Department of
Institutional Management

Sincerely,



Marilyn S. Loyd
Graduate Assistant
Department of
Institutional Management

MSL:fj

APPENDIX F
Coding Categories

CARD I

Col. No. .

Categories

		Code	Description
1	Card No. 1	1	
2	Type of form	1	Administrative form
		2	Clinical form
3	ADA classification	3	Therapeutic dietitian
		4	Generalist dietitian
		6	Administrative dietitian
4-6	ID No.		
7	area of country	1	Northeast
		2	Southeast
		3	Middlewest
		4	Southwest
		5	West
8	Ques 2, years member of ADA	1	1 year or less
		2	2 to 5 years
		3	6 to 10 years
		4	11 to 20 years
		5	over 20 years
9	Ques 3,	1	Coordinated Undergraduate Program
		2	Internship
		3	Traineeship
		4	Work Experience or Preplanned Experience
		5	Advanced Degree
10	Ques 4,	1	Bachelor's
		2	Master's
		3	Ph.D.
11-13	Ques 5, major field of study	1	Dietetics
		2	Institutional Management and Food- service Administration
		3	Foods and Nutrition
		4	Home Economics
		5	Education (Home Economics, Public Health, Nutrition, Religious)
		6	Science (Physiology, Chemistry, Biology, Psychology, Social Science)
		7	Clinical or Community Nutrition, Public Health Nutrition
		8	Other (Business Administration, Industrial Engineering, History)

CARD I

Col. No.		Categories	
		Code	Description
14	Ques 6, years employed in the profession	1	less than 5 years
		2	5 to 10 years
		3	11 to 25 years
		4	more than 25 years
15	Ques 7, position classification	1	Director of Dietary Department
		2	Head administrative dietitian
		3	Head clinical dietitian
		4	Administrative staff dietitian
		5	Clinical staff dietitian
		6	Generalist
		7	Other (Education, Consultant, Nutritionist)
		8	Retired or Homemaker
16	Ques 8, years employed in present position	1	1 year or less
		2	2 to 5 years
		3	6 to 10 years
		4	11 or more years
17	Ques 9, bed size of hospital	1	under 100 beds
		2	101 to 300 beds
		3	301 to 500 beds
		4	over 500 beds
		5	not presently employed in a hospital
18	Ques 10, number of dietitians	1	one
		2	two
		3	three to four
		4	five to nine
		5	ten or more
19-65 ¹	Responses to Scale A, Essentiality	1	not expected
		2	desirable
		3	essential

¹Col. 19-53 needed for clinical form.

CARD II

Col. No.

Categories

		Code	Description
1	Card No. 2	2	
2	Type of form	1	Administrative form
		2	Clinical form
3	ADA classification	3	Therapeutic dietitian
		4	Generalist dietitian
		6	Administrative dietitian
4-6	ID No.		
7-18	blank		
19-65 ¹	Responses to Scale B, Degree of Supervision	0	not expected
		1	close supervision
		2	general supervision
		3	little or no supervision

¹Col. 19-53 needed for clinical form.

APPENDIX G

Supplemental Tables 9-14

Table 9: Factor analysis of administrative value statements

item number	item	factor loading
<u>I. General competence and versatility (25.7)¹</u>		
28.	delegates	.64
27c.	coordinates labor and equipment	.63
26.	plans sanitation schedules	.63
27a.	coordinates departmental systems	.61
19.	plans master schedule	.60
35b.	supervises personnel effectively	.60
38.	identifies and analyzes problems	.59
35c.	monitors receiving, storage, and sanitation	.59
27b.	coordinates interdepartmental systems	.59
35a.	monitors production and service	.58
14.	analyzes and modifies menus	.56
37.	uses performance appraisal	.56
18.	determines man-hour requirements	.56
39.	solves problems	.55
17.	plans food production	.54
29.	maintains effective communication	.53
32.	identifies labor laws	.53
34.	uses effective merchandising techniques	.53
11c.	conducts in-service training	.52
16.	develops standardized recipes	.52
24.	develops purchasing specifications	.51
11b.	orients new personnel	.51
22.	prepares reports	.51
9.	plans budget	.51
13c.	considers resources in menu planning	.50
30.	provides motivational environment	.50
21.	maintains reports	.49
23.	determines and justifies new equipment	.49
13b.	incorporates individual requirements into menus	.49
10.	plans orientation and in-service training	.49
15.	evaluates client acceptance	.49
12.	obtains training materials	.49
11a.	interviews and selects personnel	.47
6.	implements new systems	.46
8.	implements policies and procedures	.45
31.	uses management techniques	.45
25.	designs inventory systems	.45

¹% of variance accounted for by each factor.

Table 9: (cont.)

item number	item	factor loading
20.	plans budget	.44
13a.	uses menu planning principles	.44
36.	evaluates job descriptions	.43
33.	acts appropriately during union organization	.40
7.	develops policies and procedures	.39
4.	evaluates effectiveness of systems	.38
5.	redesigns systems	.36
3.	develops systems	.34
2.	maintains current knowledge	.33
II. <u>Planning and policy determination vs. operation responsibilities (6.5)</u>		
1.	develops department goals	.58
5.	redesigns systems	.53
3.	develops systems	.52
7.	develops policies and procedures	.43
4.	evaluates effectiveness of systems	.42
20.	plans budget	.36
23.	determines and justifies equipment needs	.31
6.	implements new systems	.30
13a.	uses menu planning principles	-.44
35a.	monitors production and service	-.39
35c.	monitors receiving, storage, and sanitation	-.34
13b.	incorporates individual requirements into menus	-.33
14.	analyzes and modifies menus	-.31
III. <u>Personnel administration vs. management practice (4.9)</u>		
10.	plans orientation and in-service training	.49
12.	obtains training materials	.43
9.	develops job descriptions	.41
11b.	orients new personnel	.35
11c.	conducts in-service training	.33
33.	acts appropriately during union organization	-.37
31.	uses management techniques	-.31
IV. <u>Administrative leadership vs. system design (4.5)</u>		
8.	implements policies and procedures	.35
30.	provides motivational environment	.32
5.	redesigns systems	.31
4.	evaluates effectiveness of systems	.30

Table 9: (cont.)

item number	item	factor loading
25.	designs inventory system	-.40
24.	develops purchasing specifications	-.37
27b.	coordinates interdepartmental systems	-.30
V. <u>Administrative responsibilities vs. personnel administration (3.8)</u>		
13c.	considers resources in menu planning	.42
20.	plans budget	.34
24.	develops purchasing specifications	.31
11c.	conducts in-service training	-.44
11b.	orients new personnel	-.38
29.	maintains effective communication	-.32
28.	delegates	-.31
VI. <u>Labor relations vs. evaluation (3.2)</u>		
33.	acts appropriately during union organization	.45
32.	identifies labor laws	.37
11b.	orients new personnel	.37
15.	evaluates client acceptance	-.30
VII. <u>System coordination (3.1)</u>		
27a.	coordinates departmental systems	-.48
27b.	coordinates interdepartmental systems	-.45
4.	evaluates effectiveness of systems	-.32
VIII. <u>Client concern vs. operational functions (2.9)</u>		
15.	evaluates client acceptance	.42
21.	maintains records	-.40
17.	plans food production	-.38
IX. <u>Management tools (2.6)</u>		
31.	uses management techniques	.41
30.	provides motivational environment	.32
29.	maintains effective communication	.32
2.	maintains current knowledge	.30
X. <u>Professional education (2.5)</u>		
2.	maintains current knowledge	-.38

Table 10: Factor analysis of clinical value statements

item number	item	factor loading
<u>I. General competence and versatility (25.7)¹</u>		
29.	identifies need for community programs	.61
19.	serves as nutritional consultant to health team	.59
21.	identifies need for changes in nutrition care	.58
31.	cooperates in design of community programs	.57
23.	utilizes outside agencies for continuing care	.57
13.	assigns and coordinates personnel	.56
33.	serves as community resource person	.56
22.	recommends changes in nutrition care	.56
30.	identifies legislation and funds in community nutrition	.56
8.	plans nutrition education	.55
32.	utilizes community programs	.55
28.	implements new approaches	.54
26.	analyzes new approaches	.54
24.	evaluates effectiveness of nutrition care services	.54
27.	prepares proposal	.54
10.	plans nutritional guidelines	.54
17.	provides individual and group nutrition counselling	.52
5.	evaluates socio-psychological factors in nutrition care	.51
15.	communicates to appropriate personnel	.51
6.	develops nutrition care plans	.49
12c.	conducts in-service training	.49
11.	develops staffing patterns for clinical personnel	.49
9.	obtains materials for nutrition education	.47
12a.	interviews and selects personnel	.47
14.	supervises personnel	.47
3.	analyzes previous nutritional intake	.46
2.	assesses nutritional status	.46
18.	maintains records of nutrition care unit	.45
12b.	orients new personnel	.44
4.	relates medical status to nutritional planning	.44
7.	monitors and charts progress of nutrition care	.43
16.	provides motivational environment	.42
25.	maintains current knowledge	.41
20.	participates in health team activities	.41
1.	identifies those requiring nutrition care	.32

¹% of overall variance accounted for by each factor.

Table 10: (cont.)

item number	item	factor loading
<u>II. Clinical activities vs. personnel administration (8.5)</u>		
4.	relates medical status to nutritional planning	.49
7.	monitors and charts progress of nutrition care	.47
1.	identifies those requiring nutrition care	.46
3.	analyzes previous nutritional intake	.46
5.	evaluates socio-psychological factors in nutrition care	.44
6.	develops nutrition care plans	.42
2.	assesses nutritional status	.34
22.	recommends changes in nutrition care	.31
12a.	interviews and selects personnel	-.46
12b.	orients new personnel	-.44
11.	develops staffing patterns for clinical personnel	-.44
12c.	conducts in-service training	-.39
14.	supervises personnel	-.30
<u>III. Personnel administration vs. innovative programming (6.2)</u>		
12b.	orients new personnel	.41
12a.	interviews and selects personnel	.38
11.	develops staffing patterns for clinical personnel	.38
12c.	conducts in-service training	.36
13.	assigns and coordinates personnel	.33
14.	supervises personnel	.33
26.	analyzes new approaches	-.46
27.	prepares proposal	-.35
30.	identifies legislation and funds in community nutrition	-.35
33.	serves as community resource person	-.31
31.	cooperates in design of community programs	-.30
32.	utilizes community programs	-.30
<u>IV. General practice vs. nutritional planning (5.3)</u>		
16.	provides motivational environment	.51
25.	maintains current knowledge	.47
17.	provides individual and group nutrition counseling	.41
18.	maintains records of nutrition care unit	.37
30.	identifies legislation and funds in community nutrition	-.37
4.	relates medical status to nutritional planning	-.31

Table 10: (cont.)

item number	item	factor loading
<u>V. Community involvement vs. administrative leadership (3.9)</u>		
32.	utilizes community programs	.47
31.	cooperates in design of community programs	.32
27.	prepares proposal	-.40
10.	plans nutritional guidelines	-.37
22.	recommends changes in nutrition care	-.30
<u>VI. Needs assessment vs. implementation support (3.7)</u>		
1.	identifies those requiring nutrition care	.38
23.	utilizes outside agencies for continuing care	.31
24.	evaluates effectiveness of nutrition care services	.31
2.	assesses nutritional status	.30
18.	maintains records of nutrition care unit	.30
9.	obtains materials for nutrition education	-.55
<u>VII. Evaluation vs. team participation (3.1)</u>		
24.	evaluates effectiveness of nutrition care services	.42
20.	participates in health team activities	-.49
<u>VIII. Objective monitoring vs. individual interaction (3.0)</u>		
7.	monitors and charts progress of nutrition care	.30
16.	provides motivational environment	-.33
5.	evaluates socio-psychological factors in nutrition care	-.30

Table 11: Mean scores and percentage distribution of responses on essentiality and degree of supervision scales for administrative competencies¹

item number	item	essentiality			degree of supervision					
		1 could not expect	2 desirable, not essential	3 essential	mean	0 not expected	1 close supr.	2 general supr.	3 little supr.	2 mean
		%	%	%	%	%	%	%	%	
1.	develops department goals	49.2	40.7	10.1	1.61	41.1	34.5	21.3	3.1	1.47
2.	maintains current knowledge	5.4	31.0	63.6	2.58	12.4	20.9	33.7	32.9	2.14
3.	develops systems	20.9	52.7	26.4	2.05	14.0	45.7	36.8	3.5	1.51
4.	evaluates effectiveness of systems	10.9	40.3	48.1	2.38	14.3	31.0	42.6	14.3	1.81
5.	redesigns systems	39.9	46.9	12.8	1.73	36.4	36.8	22.9	3.9	1.48
6.	implements new systems	23.3	48.1	27.9	2.05	22.1	41.5	32.9	3.5	1.51
7.	develops policies and procedures	26.7	44.2	28.3	2.02	23.6	36.8	32.9	6.6	1.60
8.	implements policies and procedures	3.9	29.5	65.9	2.63	5.4	24.4	48.4	21.7	1.97
9.	develops job descriptions	9.7	40.3	49.6	2.40	10.5	25.6	46.5	17.4	1.91
10.	plans orientation and in-service training	7.4	34.1	58.5	2.51	5.0	22.1	46.1	26.7	2.05
11a.	interviews and selects personnel	36.0	41.5	22.1	1.86	32.2	28.3	30.6	8.9	1.71

¹N varies from 250 to 258; % will not equal 100 because of non-responses.

²0 responses omitted in computation of means.

Table 12: Means and F ratios for essentiality and degree of supervision scores on administrative competencies by area of country, years in ADA, years employed in profession, size of hospital, and number of dietitians on staff

item number	essentiality score						degree of supervision score					
	area of country						area of country					
	NE	SE	MW	SW	W	F ratio	NE	SE	MW	SW	W	F ratio
1.	1.5	1.6	1.7	1.7	1.5	1.19	1.6	1.5	1.4	1.6	1.7	1.36
2.	2.5	2.4	2.7	2.8	2.6	2.87	1.9	2.2	2.2	2.3	1.9	2.15
3.	2.0	2.0	2.2	2.1	1.9	1.61	1.6	1.5	1.5	1.5	1.4	0.25
4.	2.3	2.3	2.4	2.5	2.3	0.39	1.7	2.0	1.8	1.9	1.7	1.33
5.	1.7	1.6	1.8	1.9	1.6	1.46	1.5	1.6	1.3	1.6	1.5	1.79
6.	1.9	2.1	2.2	2.0	1.9	2.31	1.5	1.6	1.5	1.4	1.4	0.65
7.	2.0	1.9	2.1	2.1	1.9	0.93	1.6	1.6	1.7	1.8	1.4	1.31
8.	2.6	2.7	2.7	2.6	2.6	0.29	1.8	2.0	2.0	2.2	1.9	1.29
9.	2.3	2.3	2.4	2.6	2.3	1.08	1.7	1.9	2.0	2.1	1.8	1.61
10.	2.5	2.5	2.6	2.5	2.4	0.60	1.9	1.9	2.2	2.2	1.9	2.48
11a.	1.8	2.0	1.9	1.8	1.7	1.04	1.6	1.8	1.7	1.9	1.6	0.58
11b.	2.1	2.3	2.2	2.2	2.1	0.64	2.0	2.0	2.0	1.9	2.0	0.13
11c.	2.4	2.5	2.4	2.4	2.3	0.49	2.0	2.0	2.0	2.2	2.0	0.31
12.	2.5	2.5	2.5	2.5	2.6	0.11	2.0	2.2	2.2	2.4	2.1	1.50
13a.	2.8	2.9	2.8	2.9	2.8	0.49	2.1	2.3	2.4	2.5	2.3	2.51
13b.	2.6	2.7	2.8	2.8	2.7	1.05	2.1	2.3	2.3	2.4	2.3	1.12
13c.	2.5	2.5	2.5	2.7	2.6	0.54	1.6	1.7	1.9	2.0	1.9	2.62
14.	2.6	2.8	2.7	2.7	2.8	1.11	2.1	2.3	2.3	2.3	2.2	0.66
15.	2.5	2.6	2.5	2.5	2.7	1.02	2.1	2.2	2.3	2.4	2.2	1.26
16.	2.5	2.7	2.7	2.5	2.8	1.79	2.0	2.2	2.4	2.1	2.1	3.98**
17.	2.5	2.6	2.6	2.5	2.7	0.65	2.0	2.1	2.2	2.0	2.0	1.14

**P ≤ .01

Table 12: (cont.)

item number	essentiality score					F ratio	degree of supervision score					
	area of country						area of country					
	NE	SE	MW	SW	W		NE	SE	MW	SW	W	F ratio
18.	2.0	2.0	2.1	2.0	2.1	0.29	1.7	1.7	1.8	1.6	1.7	0.45
19.	2.2	2.5	2.3	2.3	2.2	1.65	1.7	1.9	1.9	1.9	1.8	0.94
20.	1.4	1.6	1.7	1.5	1.5	0.43	1.2	1.5	1.4	1.5	1.6	1.98
21.	2.1	2.2	2.3	2.3	2.2	0.77	1.8	1.9	1.8	1.7	1.8	0.41
22.	2.7	2.6	2.7	2.5	2.7	0.93	2.2	2.2	2.3	2.0	2.1	0.70
23.	1.8	1.8	2.1	2.0	2.0	2.57	1.5	1.6	1.7	1.9	1.7	1.27
24.	2.1	2.2	2.3	2.2	2.3	1.39	1.6	1.7	1.8	1.8	1.7	0.52
25.	1.6	1.7	1.7	1.6	1.7	0.32	1.6	1.8	1.7	1.7	1.8	0.46
26.	2.7	2.8	2.7	2.5	2.6	1.36	2.2	2.4	2.3	2.3	2.1	1.68
27a.	2.5	2.4	2.5	2.4	2.3	0.81	1.9	1.9	2.0	2.1	2.0	0.50
27b.	2.5	2.5	2.4	2.2	2.1	2.55	1.9	1.9	1.8	2.0	1.7	0.64
27c.	2.6	2.7	2.7	2.4	2.5	1.56	1.9	2.0	2.0	1.9	1.9	0.18
28.	2.6	2.6	2.6	2.5	2.7	0.46	2.2	2.3	2.2	1.9	2.2	1.91
29.	2.7	2.7	2.8	2.8	2.8	0.47	2.3	2.4	2.4	2.4	2.4	0.32
30.	2.8	2.8	2.9	2.8	2.9	0.90	2.4	2.5	2.6	2.4	2.6	1.35
31.	2.4	2.4	2.4	2.4	2.4	0.11	1.8	2.0	2.0	1.9	2.0	0.94
32.	2.3	2.2	2.3	2.2	2.3	0.20	2.0	1.8	1.9	1.8	1.9	0.48
33.	2.1	2.1	2.1	1.9	2.1	0.34	1.6	1.5	1.6	1.5	1.6	0.13
34.	2.7	2.6	2.6	2.6	2.5	0.68	2.2	2.3	2.2	2.2	2.2	0.17
35a.	2.9	2.8	2.8	2.8	2.9	0.30	2.4	2.6	2.5	2.6	2.4	0.83
35b.	2.7	2.7	2.7	2.7	2.7	0.10	2.3	2.3	2.4	2.0	2.1	2.00
35c.	2.8	2.9	2.8	2.9	2.9	0.56	2.4	2.6	2.6	2.6	2.5	1.07
36.	2.3	2.2	2.1	2.2	2.0	0.86	1.9	1.8	1.9	2.0	1.9	0.32
37.	2.6	2.5	2.5	2.4	2.4	0.94	2.0	2.0	2.0	2.1	1.9	0.28
38.	2.7	2.5	2.6	2.6	2.6	0.49	2.2	2.0	2.0	2.1	2.0	0.46
39.	2.5	2.3	2.5	2.5	2.3	1.03	1.9	1.8	1.9	1.9	1.8	0.20

Table 12: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in ADA					years in ADA				
	<5	6-10	11-20	>20		<5	6-10	11-20	>20	
1.	1.8	1.9	1.6	1.4	7.48***	1.4	1.6	1.4	1.5	1.06
2.	2.6	2.7	2.6	2.5	2.47	2.4	2.1	2.3	2.0	3.10
3.	2.2	2.2	2.0	2.0	1.81	1.6	1.5	1.5	1.5	0.37
4.	2.4	2.4	2.4	2.3	0.26	2.0	1.8	1.7	1.8	1.29
5.	2.0	1.8	1.6	1.7	3.00	1.6	1.5	1.4	1.5	0.61
6.	2.0	2.1	2.2	2.0	1.17	1.4	1.5	1.6	1.5	0.38
7.	2.2	2.2	2.0	1.9	4.34**	1.8	1.8	1.6	1.5	3.11
8.	2.6	2.6	2.6	2.6	0.09	1.9	2.0	2.1	1.9	0.55
9.	2.3	2.5	2.5	2.4	0.88	1.9	1.9	2.0	1.8	0.47
10.	2.5	2.5	2.6	2.4	1.21	2.1	2.0	2.1	2.0	0.93
11a.	2.0	1.8	2.0	1.8	1.43	1.8	1.8	1.8	1.6	0.93
11b.	2.1	2.2	2.3	2.2	0.58	2.2	1.9	2.0	1.9	1.37
11c.	2.3	2.4	2.5	2.4	0.47	2.1	1.9	2.0	2.0	0.33
12.	2.4	2.5	2.6	2.5	1.67	2.3	2.2	2.4	2.1	1.68
13a.	2.7	2.8	2.9	2.8	1.66	2.4	2.4	2.4	2.3	0.66
13b.	2.6	2.7	2.8	2.7	0.77	2.4	2.3	2.3	2.2	0.38
13c.	2.6	2.5	2.6	2.5	0.25	2.1	1.7	1.8	1.8	1.81
14.	2.7	2.7	2.8	2.7	0.57	2.4	2.2	2.2	2.2	0.39
15.	2.7	2.5	2.6	2.5	1.31	2.4	2.2	2.3	2.1	1.25
16.	2.4	2.6	2.7	2.7	2.63	2.3	2.0	2.2	2.3	1.62
17.	2.5	2.6	2.7	2.6	0.77	2.2	1.9	2.1	2.1	1.51
18.	2.0	1.9	2.0	2.1	0.70	1.9	1.6	1.7	1.7	1.40
19.	2.2	2.3	2.3	2.4	0.71	1.8	1.9	1.8	1.8	0.31

**P < .01

***P < .001

Table 12: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in ADA					years in ADA				
	<5	6-10	11-20	>20		<5	6-10	11-20	>20	
20.	1.5	1.5	1.5	1.6	0.21	1.4	1.5	1.3	1.4	0.61
21.	2.0	2.3	2.4	2.2	2.30	2.0	1.8	1.9	1.7	1.21
22.	2.5	2.7	2.7	2.7	1.43	2.3	2.3	2.2	2.1	1.29
23.	2.1	2.0	1.9	2.0	0.60	1.7	1.8	1.6	1.7	0.59
24.	2.3	2.3	2.2	2.2	0.50	1.8	1.7	1.7	1.7	0.18
25.	1.7	1.6	1.8	1.7	1.22	1.8	1.7	1.6	1.8	0.43
26.	2.6	2.6	2.8	2.7	1.50	2.4	2.2	2.4	2.2	1.44
27a.	2.4	2.4	2.5	2.5	0.29	2.1	1.9	1.9	2.0	0.97
27b.	2.3	2.3	2.4	2.4	0.17	1.9	1.8	1.8	1.9	0.22
27c.	2.5	2.6	2.6	2.6	0.46	1.9	1.8	2.0	2.0	1.26
28.	2.6	2.6	2.6	2.6	0.22	2.3	2.1	2.1	2.3	1.39
29.	2.8	2.7	2.8	2.8	0.08	2.5	2.4	2.3	2.4	0.69
30.	2.8	2.9	2.9	2.8	0.27	2.7	2.5	2.5	2.5	1.13
31.	2.5	2.4	2.4	2.4	0.44	2.3	1.7	2.0	1.9	5.55***
32.	2.3	2.2	2.3	2.3	0.21	1.8	1.8	2.0	1.8	0.70
33.	2.1	1.9	2.1	2.1	0.74	1.6	1.5	1.6	1.6	0.28
34.	2.5	2.5	2.6	2.6	0.72	2.3	2.1	2.3	2.2	0.92
35a.	2.9	2.8	2.9	2.9	0.97	2.6	2.3	2.6	2.5	2.33
35b.	2.8	2.5	2.7	2.8	4.08**	2.5	2.1	2.2	2.3	2.27
35c.	2.7	2.8	2.9	2.9	2.30	2.5	2.4	2.6	2.5	0.69
36.	2.1	2.1	2.2	2.2	0.42	1.8	2.0	1.8	1.9	0.30
37.	2.5	2.5	2.5	2.5	0.19	2.1	2.0	2.0	2.0	0.27
38.	2.7	2.7	2.6	2.6	0.46	2.2	2.0	2.0	2.1	0.88
39.	2.4	2.5	2.3	2.5	0.97	1.9	1.8	1.8	1.9	0.39

**P ≤ .01

***P ≤ .001

Table 12: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in profession					years in profession				
	<5	5-10	11-25	>25		<5	5-10	11-25	>25	
1.	1.8	1.8	1.5	1.4	5.83***	1.4	1.6	1.4	1.4	1.44
2.	2.7	2.6	2.6	2.4	2.83	2.4	2.2	2.1	1.8	3.95**
3.	2.2	2.1	2.1	1.9	1.95	1.7	1.6	1.5	1.4	1.80
4.	2.6	2.4	2.4	2.2	1.80	2.1	1.9	1.8	1.5	3.82*
5.	2.1	1.8	1.6	1.7	3.52*	1.7	1.4	1.5	1.4	1.11
6.	2.0	2.1	2.1	1.9	2.28	1.4	1.5	1.6	1.4	1.74
7.	2.4	2.2	1.9	1.9	5.02**	1.8	1.8	1.5	1.4	4.18**
8.	2.7	2.6	2.6	2.6	0.25	2.0	2.1	2.0	1.8	2.12
9.	2.4	2.4	2.4	2.4	0.13	1.9	2.0	1.9	1.8	1.36
10.	2.6	2.5	2.5	2.5	0.26	2.2	2.1	2.0	1.9	1.03
11a.	2.0	1.9	1.8	1.8	0.37	1.9	1.8	1.7	1.6	1.14
11b.	2.1	2.2	2.2	2.2	0.07	2.2	2.0	2.0	1.8	1.32
11c.	2.4	2.5	2.4	2.4	0.16	2.2	2.0	2.0	2.0	1.08
12.	2.5	2.4	2.6	2.5	1.84	2.3	2.2	2.3	2.0	3.08
13a.	2.7	2.8	2.9	2.9	1.49	2.6	2.4	2.3	2.2	1.61
13b.	2.7	2.6	2.8	2.7	0.98	2.4	2.4	2.2	2.2	1.64
13c.	2.7	2.4	2.6	2.5	2.75	2.2	1.8	1.8	1.7	3.35*
14.	2.7	2.7	2.7	2.7	0.03	2.3	2.3	2.2	2.2	0.83
15.	2.7	2.6	2.6	2.4	2.00	2.4	2.4	2.2	2.1	2.27
16.	2.6	2.5	2.7	2.7	1.59	2.4	2.1	2.3	2.2	1.41
17.	2.5	2.6	2.6	2.6	0.54	2.3	2.0	2.1	2.0	0.87
18.	2.1	2.0	1.9	2.2	1.76	1.9	1.6	1.7	1.8	0.91
19.	2.3	2.3	2.3	2.5	0.88	1.9	2.0	1.8	1.8	1.09

*P ≤ .05 **P ≤ .01 ***P ≤ .001

Table 12: (cont.)

item number	essentiality score					degree of supervision score				
	years in profession					years in profession				
	<5	5-10	11-25	>25	F ratio	<5	5-10	11-25	>25	F ratio
20.	1.7	1.5	1.5	1.7	1.15	1.3	1.5	1.4	1.3	0.85
21.	2.0	2.2	2.4	2.1	2.59	2.0	1.9	1.8	1.7	1.24
22.	2.4	2.6	2.7	2.6	2.50	2.3	2.3	2.2	2.0	1.46
23.	2.2	2.0	1.9	2.0	1.71	1.7	1.8	1.6	1.6	1.03
24.	2.4	2.2	2.2	2.2	0.53	1.8	1.8	1.7	1.6	0.77
25.	1.7	1.7	1.7	1.6	0.10	1.8	1.8	1.7	1.7	0.35
26.	2.6	2.6	2.7	2.8	1.35	2.4	2.4	2.3	2.2	0.75
27a.	2.4	2.4	2.5	2.6	0.64	2.1	2.0	1.9	2.0	0.54
27b.	2.3	2.3	2.4	2.4	0.25	1.9	1.9	1.8	1.9	0.23
27c.	2.5	2.6	2.6	2.6	0.51	2.0	1.9	2.0	2.0	0.48
28.	2.6	2.6	2.6	2.6	0.16	2.3	2.1	2.2	2.2	0.46
29.	2.8	2.8	2.8	2.7	0.67	2.6	2.5	2.4	2.1	3.79*
30.	2.8	2.9	2.9	2.8	0.19	2.6	2.6	2.5	2.3	1.95
31.	2.6	2.4	2.4	2.4	0.64	2.3	1.9	1.9	1.9	2.19
32.	2.4	2.3	2.7	2.3	0.39	1.9	1.8	1.9	1.8	0.43
33.	2.1	2.0	2.0	2.2	0.77	1.6	1.6	1.5	1.5	0.18
34.	2.5	2.5	2.6	2.8	2.90	2.3	2.1	2.3	2.2	1.02
35a.	2.9	2.7	2.9	2.9	1.23	2.6	2.4	2.5	2.4	1.49
35b.	2.7	2.6	2.7	2.8	2.20	2.5	2.2	2.3	2.1	1.48
35c.	2.7	2.8	2.9	2.9	2.43	2.5	2.5	2.5	2.5	0.20
36.	2.1	2.2	2.2	2.2	0.25	1.9	2.0	1.8	1.8	0.62
37.	2.5	2.6	2.4	2.6	0.74	2.0	2.1	2.0	1.9	1.21
38.	2.7	2.7	2.6	2.5	0.66	2.2	2.1	2.0	1.9	0.97
39.	2.4	2.5	2.4	2.4	0.91	1.9	2.0	1.8	1.8	0.88

*P < .05

Table 12: (cont.)

item number	essentiality score					degree of supervision score				
	size of hospital					size of hospital				
	<100	101-300	301-500	>500	F ratio	<100	101-300	301-500	>500	F ratio
1.	1.8	1.6	1.6	1.6	0.99	1.6	1.5	1.3	1.5	1.05
2.	2.6	2.7	2.5	2.6	1.56	2.4	2.1	2.0	2.2	1.46
3.	2.2	2.0	1.9	2.2	2.04	1.6	1.6	1.4	1.5	1.55
4.	2.6	2.3	2.4	2.4	1.10	1.9	1.9	1.9	1.7	0.86
5.	1.9	1.7	1.7	1.8	1.24	1.7	1.5	1.3	1.5	1.49
6.	2.1	2.0	2.1	2.1	0.44	1.7	1.6	1.4	1.6	1.19
7.	2.4	2.0	2.0	2.0	2.12	2.0	1.6	1.5	1.6	2.35
8.	2.7	2.6	2.6	2.6	0.14	2.2	2.0	1.9	2.0	1.09
9.	2.6	2.4	2.4	2.4	0.81	2.2	2.0	1.8	1.9	2.18
10.	2.5	2.6	2.6	2.4	1.86	2.2	2.1	2.1	1.9	2.35
11a.	1.9	1.8	1.9	1.9	0.39	1.7	1.7	1.7	1.7	0.08
11b.	2.3	2.1	2.2	2.2	0.43	2.0	2.0	2.0	1.9	0.10
11c.	2.5	2.4	2.3	2.5	0.61	2.1	2.0	2.0	2.0	0.08
12.	2.6	2.6	2.6	2.4	1.87	2.3	2.3	2.2	2.1	1.71
13a.	2.8	2.9	2.8	2.8	1.57	2.4	2.3	2.4	2.3	0.69
13b.	2.7	2.8	2.7	2.7	0.59	2.4	2.2	2.3	2.3	0.37
13c.	2.6	2.6	2.7	2.4	1.50	2.2	1.9	1.8	1.7	2.53
14.	2.8	2.7	2.8	2.7	0.54	2.3	2.2	2.2	2.3	0.61
15.	2.5	2.6	2.5	2.6	0.16	2.3	2.3	2.2	2.2	0.11
16.	2.7	2.7	2.7	2.6	0.70	2.2	2.4	2.2	2.2	1.43
17.	2.6	2.7	2.6	2.4	3.27*	2.2	2.1	2.1	1.9	1.66
18.	2.3	2.1	2.0	2.0	2.04	1.8	1.8	1.7	1.6	2.11
19.	2.4	2.3	2.3	2.4	0.18	1.9	1.9	1.8	1.7	1.05

*P < .05

Table 12: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	size of hospital					size of hospital				
	<100	101-300	301-500	>500		<100	101-300	301-500	>500	F ratio
20.	1.9	1.6	1.5	1.5	2.31	1.5	1.5	1.3	1.3	1.85
21.	2.3	2.2	2.3	2.2	0.14	1.9	1.9	1.9	1.8	0.40
22.	2.6	2.6	2.7	2.7	0.11	2.2	2.2	2.1	2.2	0.27
23.	2.0	2.0	1.9	2.0	0.87	1.7	1.7	1.7	1.6	0.22
24.	2.3	2.4	2.1	2.1	2.10	1.9	1.9	1.6	1.6	2.20
25.	1.9	1.7	1.6	1.6	0.92	2.1	1.7	1.6	1.6	2.62
26.	2.8	2.6	2.7	2.7	0.96	2.5	2.3	2.3	2.3	0.92
27a.	2.6	2.5	2.6	2.5	0.49	2.1	2.0	2.0	1.9	0.79
27b.	2.5	2.4	2.4	2.3	0.42	2.0	1.9	1.9	1.8	0.46
27c.	2.7	2.6	2.6	2.6	0.37	2.2	2.0	1.9	1.8	2.28
28.	2.7	2.6	2.5	2.6	0.47	2.1	2.3	2.3	2.1	0.82
29.	2.7	2.7	2.7	2.8	0.12	2.5	2.4	2.4	2.4	0.13
30.	2.9	2.8	2.8	2.9	0.63	2.6	2.5	2.5	2.5	0.22
31.	2.4	2.4	2.4	2.5	0.34	2.0	2.0	1.8	1.9	0.83
32.	2.4	2.3	2.3	2.3	0.31	2.1	1.9	1.9	1.8	1.07
33.	2.0	2.1	2.2	2.0	0.50	1.7	1.6	1.6	1.4	1.20
34.	2.4	2.6	2.6	2.6	1.68	2.1	2.3	2.2	2.2	0.56
35a.	2.9	2.8	2.8	2.8	0.16	2.6	2.5	2.5	2.4	0.45
35b.	2.6	2.7	2.7	2.8	0.62	2.3	2.3	2.3	2.2	0.37
35c.	2.9	2.8	2.8	2.8	0.12	2.6	2.6	2.5	2.5	0.57
36.	2.1	2.1	2.2	2.3	0.59	2.0	1.8	1.7	2.0	2.48
37.	2.5	2.5	2.5	2.6	0.57	1.9	2.1	1.9	2.0	0.56
38.	2.6	2.6	2.6	2.7	0.64	2.3	1.9	2.1	2.1	1.67
39.	2.4	2.4	2.4	2.5	0.72	2.0	1.9	1.7	1.9	0.99

Table 12: (cont.)

item number	essentiality score					F ratio	degree of supervision score					
	number of dietitians on staff						number of dietitians on staff					
	1	2	3-4	5-9	>10		1	2	3-4	5-9	>10	F ratio
1.	1.8	1.6	1.5	1.5	1.6	3.17	1.5	1.5	1.3	1.4	1.5	0.38
2.	2.6	2.7	2.6	2.6	2.6	0.45	2.1	2.3	2.1	2.1	2.2	0.60
3.	2.2	1.9	2.0	2.0	2.2	1.64	1.5	1.5	1.5	1.5	1.5	0.13
4.	2.5	2.3	2.3	2.4	2.4	0.94	1.8	1.9	1.9	1.8	1.6	1.41
5.	1.9	1.6	1.6	1.7	1.8	1.50	1.5	1.6	1.6	1.4	1.3	0.95
6.	2.1	1.8	2.1	2.1	2.1	1.16	1.7	1.4	1.5	1.6	1.5	0.84
7.	2.2	2.0	2.0	1.9	2.0	1.40	1.8	1.6	1.6	1.7	1.4	1.60
8.	2.5	2.6	2.7	2.7	2.6	1.25	2.0	2.0	1.8	2.1	1.9	1.67
9.	2.5	2.5	2.3	2.3	2.5	1.06	2.0	2.2	1.8	1.9	1.7	2.71
10.	2.6	2.6	2.5	2.5	2.3	1.26	2.1	2.1	2.1	2.0	1.9	1.17
11a.	1.9	1.6	1.8	1.9	1.9	1.14	1.8	1.8	1.6	1.7	1.7	0.40
11b.	2.2	2.0	2.1	2.3	2.2	0.85	2.0	2.0	1.9	2.1	1.7	1.69
11c.	2.4	2.3	2.4	2.5	2.4	0.54	2.1	2.0	2.1	2.2	1.8	1.95
12.	2.6	2.5	2.6	2.5	2.4	0.91	2.3	2.3	2.3	2.3	1.9	2.49
13a.	2.9	2.8	2.9	2.8	2.8	0.47	2.3	2.3	2.4	2.4	2.2	0.55
13b.	2.8	2.8	2.7	2.7	2.7	0.58	2.3	2.3	2.4	2.3	2.2	0.31
13c.	2.6	2.5	2.5	2.6	2.5	0.45	2.0	1.9	1.9	1.7	1.8	0.50
14.	2.7	2.8	2.8	2.8	2.6	0.62	2.2	2.3	2.3	2.2	2.3	0.12
15.	2.6	2.6	2.5	2.6	2.5	0.53	2.3	2.5	2.2	2.2	2.2	1.30
16.	2.7	2.7	2.5	2.7	2.6	1.09	2.3	2.5	2.3	2.1	2.2	1.10
17.	2.6	2.6	2.7	2.5	2.5	0.81	2.1	2.1	2.2	2.1	1.9	0.61
18.	2.2	1.9	2.1	2.0	1.8	2.23	1.8	1.8	1.7	1.8	1.3	3.49
19.	2.4	2.3	2.3	2.3	2.3	0.12	1.9	2.0	1.9	1.8	1.6	1.44

Table 12: (cont.)

item number	essentiality score						degree of supervision score					
	number of dietitians on staff						number of dietitians on staff					
	1	2	3-4	5-9	>10		1	2	3-4	5-9	>10	
20.	1.8	1.5	1.5	1.4	1.4	3.21	1.7	1.5	1.2	1.3	1.1	4.85***
21.	2.4	2.0	2.1	2.2	2.3	1.78	2.0	1.8	1.8	1.8	1.7	0.81
22.	2.7	2.5	2.6	2.7	2.6	0.57	2.2	2.2	2.3	2.1	2.2	0.26
23.	2.1	2.0	1.9	1.9	2.0	0.34	1.7	1.9	1.6	1.7	1.6	0.69
24.	2.4	2.3	2.2	2.2	2.1	1.61	1.8	2.0	1.5	1.7	1.6	2.42
25.	1.8	1.7	1.7	1.6	1.6	0.65	1.9	1.7	1.8	1.6	1.5	1.22
26.	2.6	2.7	2.7	2.7	2.7	0.28	2.4	2.4	2.3	2.3	2.2	0.39
27a.	2.5	2.4	2.5	2.5	2.5	0.34	2.0	1.8	2.1	2.0	1.9	1.14
27b.	2.4	2.4	2.5	2.4	2.3	0.37	2.0	1.8	1.9	1.9	1.8	0.57
27c.	2.6	2.6	2.6	2.6	2.5	0.14	2.1	2.0	2.0	1.8	1.8	1.59
28.	2.7	2.5	2.7	2.6	2.6	1.10	2.2	2.1	2.3	2.2	2.0	1.04
29.	2.7	2.6	2.8	2.8	2.8	1.25	2.3	2.4	2.5	2.4	2.3	1.02
30.	2.8	2.9	2.9	2.9	2.8	1.19	2.5	2.6	2.6	2.6	2.4	1.14
31.	2.4	2.4	2.3	2.5	2.4	0.32	2.0	2.1	1.9	2.0	1.7	1.77
32.	2.4	2.3	2.2	2.2	2.4	0.82	2.0	1.8	1.8	1.9	1.8	1.28
33.	2.2	1.8	2.1	2.1	2.1	1.23	1.8	1.3	1.5	1.6	1.4	2.71
34.	2.6	2.5	2.7	2.5	2.6	1.01	2.2	2.4	2.4	2.1	2.1	1.36
35a.	2.9	2.8	2.8	2.8	2.9	0.48	2.5	2.5	2.6	2.5	2.4	0.30
35b.	2.7	2.6	2.8	2.7	2.8	0.76	2.2	2.3	2.3	2.3	2.1	0.65
35c.	2.9	2.8	2.8	2.9	2.8	0.60	2.5	2.6	2.6	2.5	2.4	1.20
36.	2.2	2.0	2.2	2.2	2.2	0.61	2.0	1.7	1.8	1.9	1.8	0.94
37.	2.5	2.3	2.7	2.5	2.6	2.47	2.0	2.0	2.1	2.0	1.9	0.35
38.	2.6	2.5	2.6	2.7	2.7	0.85	2.0	2.0	2.1	2.0	2.2	0.61
39.	2.4	2.2	2.5	2.4	2.6	1.97	1.9	1.9	1.8	1.8	1.8	0.38

***P ≤ .001

Table 13: Mean scores and percentage distribution of responses on essentiality and degree of supervision scales for clinical competencies¹

item number	item	essentiality			degree of supervision					
		1	2	3	0	1	2	3	not expected	close general little supr. supr. mean ²
		could not expect	desirable, not essential	essential	mean	%	%	%		
		%	%	%		%	%	%		
1.	identifies those requiring nutrition care	7.9	23.6	68.2	2.61	6.7	11.2	43.8	38.2	2.29
2.	assesses nutritional status	7.5	19.5	72.7	2.65	4.5	31.5	46.8	17.2	2.15
3.	analyzes previous nutritional intake	4.9	17.2	77.2	2.73	3.0	8.6	39.3	49.1	2.42
4.	relates medical status to nutritional planning	12.4	33.0	54.7	2.42	9.4	27.3	44.9	18.4	1.90
5.	evaluates socio-psychological factors in nutrition care	12.0	29.6	58.4	2.46	10.1	16.9	44.9	28.1	2.13
6.	develops nutrition care plans	5.2	24.7	70.0	2.65	4.5	20.2	46.8	28.5	2.09
7.	monitors and charts progress of nutrition care	2.6	13.5	83.9	2.81	3.0	5.6	40.4	50.9	2.47
8.	plans nutrition education	10.5	49.8	39.0	2.29	12.0	18.7	55.1	14.2	1.95
9.	obtains nutrition education materials	3.4	36.0	60.3	2.57	6.7	10.5	43.8	39.0	2.31
10.	plans nutritional guidelines	49.4	37.8	12.7	1.63	47.2	32.2	16.5	4.1	1.47

¹N varies from 264 to 267; % will not equal 100 because of non-responses.

²0 responses omitted in computation of means.

Table 14: Means and F ratios for essentiality and degree of supervision scores on clinical competencies by area of country, years in ADA, years in profession, size of hospital, and number of dietitians on staff

item number	essentiality score					F ratio	degree of supervision score					
	area of country						area of country					
	NE	SE	MW	SW	W		NE	SE	MW	SW	W	F ratio
1.	2.6	2.6	2.7	2.6	2.6	0.27	2.3	2.2	2.4	2.3	2.3	0.66
2.	2.7	2.6	2.7	2.5	2.7	0.83	2.0	2.2	2.2	2.2	2.2	1.24
3.	2.8	2.7	2.7	2.7	2.9	0.77	2.4	2.3	2.4	2.3	2.6	1.60
4.	2.4	2.3	2.5	2.3	2.6	1.04	2.0	1.8	1.9	1.8	1.9	0.40
5.	2.4	2.5	2.5	2.5	2.6	0.28	2.1	2.1	2.1	2.1	2.3	0.57
6.	2.6	2.7	2.7	2.8	2.7	0.81	2.1	2.2	2.0	2.1	2.1	0.91
7.	2.7	2.8	2.9	2.8	2.9	2.22	2.4	2.5	2.4	2.5	2.6	1.06
8.	2.4	2.4	2.2	2.3	2.2	1.27	1.8	2.2	1.8	2.0	2.0	3.84**
9.	2.5	2.6	2.5	2.6	2.7	0.78	2.2	2.5	2.2	2.5	2.4	3.22
10.	1.8	1.7	1.6	1.6	1.6	1.06	1.6	1.5	1.4	1.6	1.4	1.05
11.	1.8	1.8	1.7	1.6	1.6	0.98	1.7	1.6	1.5	1.7	1.4	1.33
12a.	1.7	1.5	1.6	1.7	1.6	1.04	1.7	1.6	1.5	1.8	1.5	0.42
12b.	2.0	1.9	2.0	2.1	2.1	0.54	2.0	2.0	1.7	2.0	1.9	1.43
12c.	2.2	2.1	2.1	2.2	2.2	0.51	1.8	1.9	1.7	2.2	1.9	2.02
13.	2.1	2.2	2.1	2.3	2.1	0.86	1.9	1.9	1.8	2.0	1.8	0.69
14.	2.4	2.4	2.3	2.4	2.3	0.67	2.0	2.1	2.0	2.6	2.1	3.62**
15.	2.7	2.7	2.8	2.7	2.9	1.04	2.3	2.3	2.2	2.4	2.5	0.73
16.	2.7	2.8	2.8	2.7	2.9	1.19	2.5	2.5	2.5	2.6	2.7	0.77
17.	2.4	2.5	2.6	2.5	2.8	1.84	2.1	2.3	2.1	2.5	2.4	4.34**
18.	2.7	2.7	2.7	2.6	2.6	0.26	2.2	2.4	2.3	2.4	2.3	1.51

**P ≤ .01

Table 14: (cont.)

item number	essentiality score					F ratio	degree of supervision score					
	area of country						area of country					
	NE	SE	MW	SW	W		NE	SE	MW	SW	W	F ratio
19.	2.6	2.3	2.5	2.5	2.6	1.01	2.0	2.1	2.1	2.4	2.2	1.54
20.	2.7	2.6	2.6	2.5	2.6	0.42	2.4	2.5	2.4	2.6	2.5	0.86
21.	2.3	2.3	2.3	2.1	2.3	0.48	1.9	2.0	2.0	2.0	2.1	0.54
22.	2.5	2.4	2.4	2.1	2.6	1.85	2.0	2.0	2.0	2.1	2.1	0.18
23.	2.2	2.0	2.2	2.0	2.2	1.60	2.0	2.1	1.8	2.1	2.0	1.64
24.	2.3	2.2	2.3	2.3	2.5	1.04	2.0	2.2	2.0	2.0	2.2	0.84
25.	2.8	2.9	2.9	2.7	2.9	1.66	2.6	2.7	2.6	2.8	2.7	0.94
26.	2.6	2.5	2.6	2.6	2.6	0.12	2.2	2.3	2.3	2.5	2.4	0.88
27.	2.2	2.2	2.3	2.2	2.1	0.84	1.8	2.0	1.9	1.9	1.7	0.57
28.	2.2	2.1	2.1	1.8	2.0	1.50	1.8	1.9	1.6	1.8	1.7	1.64
29.	2.0	1.8	2.1	1.9	1.8	1.68	1.9	1.8	1.8	1.8	2.1	1.42
30.	1.9	1.7	1.8	1.6	1.7	1.07	2.0	1.7	1.8	1.9	2.1	1.19
31.	2.1	2.1	2.1	2.2	2.1	0.18	2.0	2.0	1.8	2.2	2.2	2.30
32.	2.2	2.0	2.0	2.2	2.1	0.62	2.0	1.9	1.7	2.0	2.2	2.81*
33.	2.3	2.1	2.1	2.1	2.2	0.52	2.1	2.2	1.9	2.4	2.3	3.63**

*P ≤ .05 **P ≤ .01

Table 14: (cont.)

item number	essentiality score					F ratio	degree of supervision score				
	years in ADA						years in ADA				
	<5	6-10	11-20	>20			<5	6-10	11-20	>20	F ratio
1.	2.8	2.6	2.5	2.4	7.55***	2.5	2.4	2.1	2.0	6.50***	
2.	2.8	2.6	2.6	2.5	3.05	2.4	2.1	2.1	1.9	7.63***	
3.	2.8	2.7	2.7	2.6	2.50	2.5	2.4	2.4	2.3	2.03	
4.	2.5	2.4	2.3	2.3	1.87	2.1	2.0	1.7	1.8	5.03**	
5.	2.6	2.4	2.4	2.3	3.55*	2.2	2.2	1.9	2.0	2.82	
6.	2.7	2.6	2.7	2.6	0.28	2.2	2.1	1.9	2.0	2.41	
7.	2.9	2.8	2.8	2.8	0.99	2.6	2.5	2.3	2.3	2.40	
8.	2.3	2.3	2.4	2.5	0.74	2.0	2.0	1.9	1.9	0.14	
9.	2.5	2.6	2.6	2.6	0.10	2.2	2.4	2.2	2.4	1.44	
10.	1.7	1.6	1.5	1.6	1.46	1.6	1.2	1.6	1.5	1.66	
11.	1.8	1.7	1.6	1.7	0.54	1.6	1.7	1.5	1.6	0.22	
12a.	1.7	1.7	1.5	1.7	0.81	1.7	1.9	1.6	1.6	0.99	
12b.	2.0	2.0	2.0	2.1	0.39	2.0	1.8	1.8	1.9	0.83	
12c.	2.1	2.1	2.1	2.2	0.37	2.0	1.8	1.8	1.9	0.89	
13.	2.2	2.1	2.2	2.1	0.96	1.9	1.8	1.9	1.8	0.64	
14.	2.3	2.3	2.3	2.5	0.87	2.1	2.2	2.0	2.2	0.91	
15.	2.9	2.7	2.6	2.7	3.45*	2.4	2.4	2.3	2.2	1.67	
16.	2.8	2.7	2.8	2.8	0.40	2.5	2.7	2.6	2.6	0.55	
17.	2.6	2.5	2.6	2.5	0.58	2.3	2.3	2.2	2.1	0.88	
18.	2.7	2.6	2.7	2.6	0.53	2.3	2.3	2.3	2.3	0.33	

*P ≤ .05 **P ≤ .01 ***P ≤ .001

Table 14: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in ADA					years in ADA				
	<5	6-10	11-20	>20		<5	6-10	11-20	>20	F ratio
19.	2.7	2.5	2.4	2.3	3.67*	2.2	2.2	2.1	2.0	2.15
20.	2.6	2.5	2.6	2.7	0.42	2.6	2.5	2.4	2.3	3.90**
21.	2.4	2.2	2.2	2.2	2.27	2.1	2.0	1.8	1.9	3.28*
22.	2.6	2.4	2.2	2.3	7.52***	2.2	2.1	1.9	1.9	2.45
23.	2.2	2.1	2.1	2.1	0.81	2.0	1.9	1.9	2.1	0.84
24.	2.3	2.3	2.2	2.4	0.74	2.1	2.0	2.1	2.0	0.59
25.	2.9	2.8	2.9	2.9	0.96	2.7	2.7	2.6	2.6	0.26
26.	2.6	2.5	2.5	2.6	0.27	2.4	2.2	2.3	2.3	1.23
27.	2.2	2.3	2.1	2.2	0.33	1.8	1.8	1.9	1.9	0.32
28.	2.1	2.1	2.1	2.1	0.15	1.8	1.7	1.7	1.8	0.10
29.	2.0	1.9	1.9	1.9	0.46	1.9	1.9	1.9	1.9	0.02
30.	1.8	1.7	1.8	1.7	0.57	1.9	2.0	1.9	1.9	0.24
31.	2.1	1.9	2.0	2.2	2.23	1.9	2.1	1.9	2.1	1.58
32.	2.2	2.0	2.1	2.1	0.84	1.9	2.0	1.9	1.9	0.14
33.						2.2	2.0	2.0	2.3	1.75

*P ≤ .05 **P ≤ .01 ***P ≤ .001

Table 14: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in profession					years in profession				
	<5	5-10	11-25	>25		<5	5-10	11-25	>25	F ratio
1.	2.7	2.7	2.5	2.3	4.87**	2.4	2.3	2.2	1.9	3.96**
2.	2.8	2.7	2.6	2.5	1.27	2.4	2.1	2.0	2.0	6.69***
3.	2.8	2.8	2.6	2.6	4.02	2.6	2.3	2.3	2.3	3.45
4.	2.5	2.5	2.4	2.3	0.67	2.1	1.8	1.8	1.7	4.19
5.	2.6	2.4	2.4	2.3	2.34	2.3	2.1	2.0	1.9	2.34
6.	2.8	2.6	2.7	2.7	0.33	2.2	2.0	2.0	2.0	2.19
7.	2.8	2.8	2.8	2.9	0.42	2.6	2.5	2.3	2.4	3.00*
8.	2.2	2.3	2.4	2.2	1.27	2.0	2.0	1.9	1.9	0.84
9.	2.5	2.7	2.6	2.5	2.17	2.3	2.4	2.4	2.1	1.24
10.	1.8	1.6	1.6	1.5	1.34	1.6	1.3	1.5	1.8	2.13
11.	1.8	1.8	1.7	1.6	0.41	1.6	1.6	1.6	1.8	0.58
12a.	1.7	1.7	1.5	1.8	0.97	1.7	1.5	1.5	2.0	2.39
12b.	2.1	2.0	2.0	2.2	0.62	2.0	1.9	1.8	2.0	1.28
12c.	2.1	2.1	2.1	2.4	1.06	2.0	1.9	1.7	2.1	2.13
13.	2.2	2.1	2.2	2.0	0.75	1.9	1.7	1.9	1.8	1.09
14.	2.4	2.3	2.4	2.4	0.49	2.2	2.1	2.1	2.1	0.23
15.	2.9	2.7	2.6	2.7	2.93*	2.5	2.3	2.2	2.4	3.88**
16.	2.8	2.8	2.8	2.6	0.54	2.6	2.6	2.5	2.5	0.48
17.	2.6	2.5	2.6	2.3	1.70	2.3	2.2	2.2	2.1	0.44
18.	2.7	2.6	2.7	2.6	0.72	2.4	2.3	2.2	2.4	0.72

*P ≤ .05

**P ≤ .01

***P ≤ .001

Table 14: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	years in profession					years in profession				
	<5	5-10	11-25	>25		<5	5-10	11-25	>25	
19.	2.6	2.6	2.3	2.3	4.27	2.2	2.2	1.9	2.3	2.76
20.	2.6	2.5	2.6	2.7	0.47	2.6	2.4	2.3	2.5	3.27*
21.	2.5	2.2	2.3	2.0	3.95**	2.1	2.0	1.8	2.1	2.01
22.	2.6	2.5	2.3	2.0	5.99***	2.2	2.1	1.9	1.9	2.80
23.	2.2	2.2	2.1	2.1	0.77	2.1	1.8	2.0	2.5	4.32**
24.	2.3	2.3	2.3	2.5	0.91	2.2	2.0	1.9	2.3	2.62
25.	2.9	2.8	2.9	2.9	0.33	2.7	2.6	2.6	2.8	1.66
26.	2.6	2.6	2.5	2.7	0.49	2.4	2.3	2.3	2.5	1.30
27.	2.1	2.2	2.2	2.3	0.64	1.8	1.8	1.9	2.3	3.11*
28.	2.1	2.0	2.2	2.0	0.92	1.8	1.6	1.8	2.0	1.08
29.	2.0	1.8	1.9	2.1	1.23	1.8	1.9	1.8	2.4	4.48**
30.	1.8	1.7	1.8	1.8	0.32	1.9	2.0	1.9	1.9	0.22
31.	2.0	1.9	2.1	2.4	2.70	1.9	1.9	2.0	2.2	1.81
32.	2.2	2.0	2.1	2.2	1.33	2.0	1.9	1.9	2.1	0.52
33.	2.3	2.1	2.1	2.2	1.02	2.2	2.0	2.1	2.3	1.42

*P ≤ .05 **P ≤ .01 ***P ≤ .001

Table 14: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	bed size of hospital					bed size of hospital				
	<100	101-300	301-500	>500		<100	101-300	301-500	>500	F ratio
1.	2.4	2.6	2.7	2.7	2.38	2.1	2.1	2.4	2.5	6.29
2.	2.5	2.6	2.7	2.8	2.12	1.8	2.0	2.3	2.3	3.87
3.	2.4	2.6	2.8	2.9	7.27***	2.2	2.4	2.5	2.5	1.29
4.	2.4	2.3	2.4	2.6	1.12	1.9	1.8	1.9	2.0	1.14
5.	2.2	2.4	2.5	2.6	1.48	2.4	2.1	2.1	2.2	1.48
6.	2.6	2.6	2.8	2.7	1.79	1.9	2.0	2.1	2.2	1.34
7.	2.8	2.8	2.8	2.9	1.05	2.2	2.4	2.5	2.5	1.70
8.	2.3	2.4	2.2	2.4	1.23	1.9	2.0	1.9	2.0	0.80
9.	2.5	2.5	2.6	2.6	0.77	2.5	2.4	2.1	2.3	2.43
10.	1.8	1.7	1.6	1.7	0.47	1.4	1.6	1.3	1.5	2.12
11.	1.9	1.8	1.6	1.8	1.47	1.7	1.6	1.5	1.6	0.86
12a.	1.6	1.7	1.5	1.7	1.17	1.8	1.7	1.5	1.5	1.09
12b.	2.1	2.1	2.0	2.0	0.52	2.3	2.0	1.8	1.8	2.15
12c.	2.2	2.0	2.0	2.1	1.06	2.2	2.0	1.7	1.9	2.71
13.	2.1	2.2	2.1	2.1	0.15	1.9	1.9	1.8	1.7	0.84
14.	2.4	2.5	2.2	2.3	2.25	2.1	2.3	2.1	2.0	2.49
15.	2.8	2.7	2.7	2.8	0.43	2.1	2.3	2.4	2.3	0.92
16.	2.8	2.8	2.7	2.8	0.54	2.7	2.5	2.6	2.6	0.26
17.	2.4	2.6	2.6	2.5	0.62	2.0	2.3	2.2	2.2	0.93
18.	2.5	2.7	2.7	2.6	0.96	2.0	2.3	2.4	2.2	1.78

***P ≤ .001

Table 14: (cont.)

item number	essentiality score				F ratio	degree of supervision score				
	bed size of hospital					bed size of hospital				
	<100	101-300	301-500	>500		<100	101-300	301-500	>500	F ratio
19.	2.3	2.4	2.6	2.7	2.54	2.1	2.1	2.0	2.3	1.55
20.	2.7	2.5	2.6	2.7	2.29	2.1	2.4	2.4	2.6	2.71*
21.	2.3	2.2	2.3	2.4	0.93	1.9	2.0	1.9	2.1	0.43
22.	2.3	2.3	2.5	2.6	3.11	2.1	1.9	2.1	2.1	0.71
23.	2.0	2.2	2.1	2.2	1.05	2.1	2.1	1.9	1.9	1.83
24.	2.3	2.4	2.3	2.3	0.48	2.1	2.1	2.0	2.0	0.43
25.	2.7	2.8	2.9	2.9	1.07	2.6	2.7	2.6	2.6	0.26
26.	2.5	2.6	2.6	2.6	0.04	2.3	2.4	2.2	2.2	1.68
27.	2.1	2.2	2.1	2.3	0.68	1.7	2.0	1.8	1.7	1.23
28.	2.1	2.1	2.0	2.2	1.40	1.8	1.8	1.6	1.7	0.88
29.	1.9	1.9	1.9	2.0	0.19	1.6	2.0	1.7	1.9	3.46
30.	1.8	1.7	1.7	1.9	0.57	1.9	2.1	1.7	1.9	2.32
31.	2.1	2.2	2.0	2.1	0.70	2.2	2.1	1.8	1.8	2.68
32.	2.2	2.1	2.0	2.1	1.05	2.3	2.0	1.8	1.8	3.22
33.	2.3	2.2	2.1	2.2	0.59	2.5	2.1	2.0	2.1	2.49

*P ≤ .05

Table 14: (cont.)

item number	essentiality score					F ratio	degree of supervision score					
	number of dietitians on staff						number of dietitians on staff					
	1	2	3-4	5-9	>10		1	2	3-4	5-9	>10	F ratio
1.	2.4	2.7	2.5	2.7	2.8	2.98	2.1	2.1	2.4	2.4	2.5	3.83**
2.	2.6	2.6	2.7	2.7	2.7	0.97	2.0	1.9	2.1	2.3	2.1	2.07
3.	2.5	2.6	2.8	2.8	2.9	5.35***	2.3	2.2	2.5	2.5	2.5	1.97
4.	2.2	2.5	2.4	2.5	2.6	1.97	1.8	1.9	1.9	1.9	2.0	0.85
5.	2.3	2.4	2.4	2.6	2.7	2.35	2.1	2.0	2.1	2.3	2.1	1.15
6.	2.5	2.6	2.6	2.7	2.7	1.66	1.9	2.1	2.1	2.2	2.1	1.68
7.	2.8	2.7	2.8	2.9	2.8	1.21	2.4	2.4	2.5	2.5	2.5	0.56
8.	2.4	2.3	2.4	2.2	2.3	0.99	1.9	2.0	1.8	2.0	1.9	0.87
9.	2.5	2.7	2.6	2.6	2.5	0.37	2.4	2.5	2.3	2.3	2.1	1.67
10.	1.8	1.7	1.7	1.6	1.6	0.68	1.6	1.6	1.5	1.5	1.5	0.22
11.	1.9	1.8	1.8	1.7	1.5	2.07	1.7	1.6	1.6	1.5	1.5	0.64
12a.	1.8	1.8	1.6	1.6	1.6	1.46	1.8	1.6	1.5	1.6	1.5	1.41
12b.	2.2	2.1	2.1	1.8	2.0	2.54	2.2	2.0	1.9	1.9	1.7	2.46
12c.	2.3	2.2	2.1	2.0	2.1	1.61	2.2	1.9	1.7	1.9	1.7	3.54**
13.	2.2	2.2	2.2	2.1	2.1	0.40	1.9	1.9	1.8	1.8	1.8	0.60
14.	2.5	2.6	2.3	2.2	2.2	2.06	2.3	2.1	2.1	2.1	1.9	1.41
15.	2.7	2.7	2.6	2.8	2.8	1.46	2.2	2.3	2.4	2.4	2.2	1.05
16.	2.7	2.9	2.8	2.8	2.7	1.27	2.5	2.6	2.6	2.6	2.4	0.79
17.	2.5	2.6	2.7	2.5	2.5	0.91	2.3	2.2	2.3	2.3	2.1	0.63
18.	2.6	2.7	2.7	2.7	2.7	0.19	2.3	2.3	2.4	2.3	2.2	0.74

P ≤ .01 *P ≤ .001

Table 14: (cont.)

item number	essentiality score					F ratio	degree of supervision score					
	number of dietitians on staff						number of dietitians on staff					
	1	2	3-4	5-9	>10		1	2	3-4	5-9	>10	F ratio
19.	2.4	2.4	2.5	2.6	2.7	2.19	2.3	1.9	2.1	2.2	2.1	1.58
20.	2.6	2.3	2.5	2.7	2.7	2.92	2.4	2.2	2.4	2.5	2.6	1.52
21.	2.3	2.2	2.2	2.4	2.3	0.77	2.0	1.9	1.9	2.0	2.1	0.46
22.	2.2	2.3	2.5	2.6	2.5	2.86	2.0	2.0	2.1	1.9	2.2	1.18
23.	2.2	2.1	2.2	2.1	2.2	0.15	2.2	2.2	2.0	1.8	1.8	2.81
24.	2.4	2.4	2.3	2.3	2.3	0.53	2.2	2.3	2.0	1.9	1.9	1.94
25.	2.8	2.9	3.0	2.9	2.8	2.09	2.7	2.6	2.7	2.7	2.5	0.88
26.	2.6	2.5	2.6	2.6	2.5	0.51	2.5	2.4	2.7	2.2	2.1	2.30
27.	2.2	2.2	2.3	2.2	2.1	0.35	2.0	1.8	1.8	1.8	1.8	0.46
28.	2.2	2.1	2.1	2.1	2.0	0.41	1.8	1.9	1.8	1.6	1.7	1.18
29.	2.0	1.9	1.9	2.0	1.9	0.21	2.0	1.7	1.9	1.8	2.0	1.09
30.	1.8	1.7	1.7	1.9	1.7	1.12	2.0	1.9	2.2	1.8	1.7	1.37
31.	2.2	2.1	2.0	2.1	2.0	0.60	2.2	2.0	2.0	1.8	1.8	2.79*
32.	2.2	2.1	2.1	2.0	2.0	0.84	2.2	2.0	1.9	1.8	1.7	3.52
33.	2.2	2.2	2.2	2.1	2.1	0.24	2.3	2.0	2.2	2.0	2.1	1.84

*P ≤ .05

THE ENTRY-LEVEL GENERALIST DIETITIAN: EXPECTATIONS
OF THE HOSPITAL DIETETIC PRACTITIONER

by

MARILYN S. LOYD

B.S., Kansas State University, 1972

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1975

ABSTRACT

A profession has an obligation to society to provide competent practitioners. In dietetics, as in other health related professions, attention should be directed to identifying present competencies of various levels within the profession and new competencies that will allow for greater contribution to maximum health care. Although some skills can be gained on the job, the beginning dietitian is assumed to have a certain amount of knowledge and competency. In training the entry-level professional, a prime concern of educators is defining the expected level of performance. Katz identified the three types of skills for managerial personnel as technical, human, and conceptual. He further specified the first level position as involving primarily technical and human skills, with little emphasis on conceptual skills.

The dietetic profession has given top priority to the identification of competencies for the entry-level dietitian. By the 1980's, membership in The American Dietetic Association should be based on competencies, using Plan IV of the Minimum Academic Requirements. These were developed primarily by educators to describe the academic outcomes of the education of entry-level dietitians.

Competencies are needed that include the clinical or applied aspects of the educational process, those experiences based on actual activities related to the practice of dietetics--which are provided in the coordinated undergraduate programs in dietetics or in dietetic internships. In 1972, Cagguila was commissioned by the ADA Executive Board to develop entry-level competencies for the generalist dietitian as a first step in the process of identifying competencies for the profession. Again, these have been

evaluated primarily by educators. To insure validity for academic and clinical preparation, input also is needed from practitioners, employers, and clients.

The purpose of this study was to secure information from a random sample of hospital dietetic practitioners concerning their expectations of the entry-level generalist dietitian. The competencies developed by Cagguila were used as the basis for the research. What do professionals in the field view as the necessary skills for effective practice? How much supervision is required in various aspects of practice? The study was limited to hospital dietitians since they comprise the largest group of practitioners within the profession.

Administrative and clinical competencies were evaluated by clinical, administrative, and generalist hospital dietitians through a mail survey. Two-hundred-seventy administrative instruments (67.5%) and 286 clinical instruments (71.5%) were returned. Twenty-three of the forty-seven administrative competencies were considered "essential for entry-level practice" and eighteen, "desirable, but not essential." The competencies rated as beyond entry level were concerned with long-range planning and systems design activities. Fourteen of the thirty-five clinical competencies were rated "essential"; sixteen "desirable," and five were rated beyond the entry-level. This latter category includes such tasks as identifying sources of funds, developing diet manuals, and developing staffing patterns. In both aspects of practice, the practitioners believed entry-level dietitians needed general to close supervision in performance of about half of the competencies.

The majority of the essential competencies identified were related to technical skills, with a few related to human and conceptual skills. The

numerical rankings of the competencies were similar on both the essentiality and degree of supervision scales. Generally, competencies requiring the least amount of supervision were those competencies considered the most essential and competencies requiring closer supervision were rated least essential.