

308
CAREER PATTERNS OF HOSPITAL DIETITIANS IN MID CAREER
AND IMPLICATIONS FOR CONTINUING EDUCATION

by

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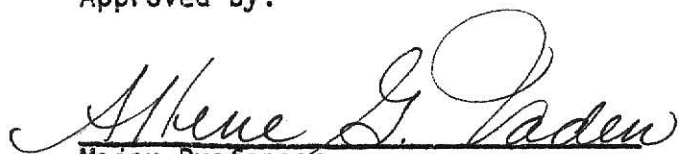
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INTRODUCTION

The American Dietetic Association's (A.D.A.) Committee on Goals of Education for Dietetics (1) in 1969 identified the unique role of the dietitian as being nutritional care. Dietetics was defined as a profession concerned with the science and art of human nutritional care, an essential component of the health sciences. The committee stated that a dietitian is a specialist educated for a profession responsible for the nutritional care of individuals and groups.

There is no legal definition of dietetics, because there is no licensure by either state or federal government. According to the Study Commission on Dietetics, membership in A.D.A. though voluntary, is the counterpart of licensure for the professional who wishes to be recognized as a dietitian (2). A.D.A. encompasses the majority of persons practicing dietetics.

The primary responsibility of a profession with which the public is most concerned is that of assuring the professional competence of its practitioners. On June 1, 1969, A.D.A. launched a voluntary program of professional registration. The goals of the program are: (a) the identification of dietitians who can demonstrate mastery in the field in terms of meeting certain professionally determined levels of competency (3) and (b) upgrading of professional competency by evidence of self-improvement through continuing education of the registrant, thus serving to improve the status of professional dietitians (4).

Dietitians meeting eligibility requirements of academic preparation, experience in dietetic practice, and appropriate endorsement may become

registered by successfully completing an examination of basic knowledge related to the practice of dietetics and by paying a registration fee. To maintain registered status, each Registered Dietitian (R.D.) must complete a specified number of approved continuing education hours over a five-year period and pay an annual registration fee. Maintenance of registered status currently requires completion of seventy-five hours of approved continuing education over a five-year period (5).

A.D.A. members (6) recognize responsibility for setting and maintaining standards for dietetic education. Dietitians have the responsibility to evaluate their own educational needs and to initiate a plan for self-development. Individuals accept responsibility for determining the value of an educational activity in terms of their own needs.

In 1969 Sanford (7) found that almost one-fourth of the dietitians who had graduated from internships in the years 1965 to 1967 had held three or more positions in the short time since graduation from their internship. The 1972 A.D.A. manpower study (8) showed that approximately two-thirds of the A.D.A. members had been employed in one position for five years or less. The data did not indicate whether the persons were new to the practice of dietetics, had recently changed positions, or were re-entering the labor force. The A.D.A. membership information which is updated each year is used for manpower studies, planning continuing education for members, and for educational program curricula development (8). The information provided by the membership questionnaire, however, lacks data on the career profile or patterns in the profession.

Changing jobs may require a special emphasis on continuing education when the change is between two different specialty areas of dietetics. For example, if a dietitian moves from an administrative position to a

clinical position, continuing education in the area of nutrition and diet therapy would be important. The number of years a dietitian is out of the work force also will have an impact on the dietitian's continuing education needs upon re-entry to the work force.

The objective of this study was to identify implications for continuing education from a survey of the career profile of experienced dietitians. The specialized training of the dietitians in their college, internship, or other educational preparation programs and positions held since entering the work force were examined, as well as career breaks and career interests. Education for job changes or re-entry to the work force also was investigated. The study was limited to those in the mid career part of the maintenance career stage, according to the typology of Hackman and Suttle (9), since these dietitians may have had several career changes but still have a number of years remaining in their professional life.

Hackman and Suttle (9) listed four major stages of an individual's career: (a) exploration stage, (b) establishment or early career stage, (c) maintenance stage, including mid career and late career phases, and (d) decline stage. The exploration stage includes occupational imagery, advice of parents and teachers and the actual choice of an educational path. The establishment stage includes looking for a job, the first job assignment, performance review, transfer, and promotion. In the mid career portion of the maintenance stage the person is expected to enter a period of maximum productivity. The person is expected to become more of a teacher/mentor than learner. According to Hackman and Suttle, in late career jobs are assigned and responsibilities are drawn primarily on wisdom, perspective, and maturity of judgment. They also stated that the

late career includes more jobs involving teaching others. The decline stage, according to Hackman and Suttle, include formal preparation for retirement.

Literature reviewed relevant to the study included: career patterns with emphasis on patterns of women, women in the labor force, and continuing education.

REVIEW OF LITERATURE

Career Patterns

Career Patterns Defined

According to Crites (10) career patterns trace an individual's job movement. Walker (11) stated that during their working lives most employed persons move through a patterned sequence of positions or roles, usually related in work content. Walker defined career paths as objective descriptions of sequential work experiences, as opposed to subjective individual feelings about career progress, personal development, status, or satisfaction. As reported by Crites (10), the concept of career patterns has its historical roots in the sociologist's interest in social mobility.

Form and Miller (12) used the total number of jobs held by the worker to study patterns of secure and insecure occupational life among different occupational levels. Data were analyzed first to classify each job as initial, trial, or stable: an initial job is held while individuals are completing their formal education; a trial job lasts for three years or less, after formal education has ended; and a stable job lasts for three or more years.

Occupational Mobility

Berry (13) examined the effect of certain individual characteristics on the probability of making an internal or external labor market shift. An objective of the study was to develop a framework for understanding occupational mobility by taking into account desires and motives of both

individuals and organizations. Berry used longitudinal data which contained information on the job changes of a national sample of men and the characteristics of the individuals making the job changes.

According to Berry (13) the existence of firm specific skills, the possibility of on-the-job training, and the cost of labor turnover are the major factors responsible for the development of internal labor markets. Berry also stated that when a worker in an internal market is promised a chance of advancing to a more desirable job, he/she will be less likely to leave the firm. Level of job reward as measured by income, prestige, and income adequacy affected the decision to make an external shift. A low level of reward caused individuals to leave their current employer.

Berry also found that on-the-job training had an important influence on the likelihood of making either an internal or external shift. The probability of an internal shift is increased with on-the-job training when a worker is given an increased chance for promotion. By increasing the chances that a worker with specific training will be promoted, the employer hopes to persuade the employee to stay with the firm.

Education, verbal ability, and the number of internal shifts during the adult career favorably influenced the income and prestige the employee received. The change in income or prestige when shifting jobs was positively affected by education and verbal ability if the change was between firms, while these variables had little or no effect within a firm (13).

Lateral Mobility

Walker (11) contended that individuals do not need to follow upward career paths. Lateral paths provide exposure to multiple functions and activities and thus develop broader capabilities among individuals.

He also stated that many individuals find lateral careers highly satisfying.

Becker (14) found that the Chicago public school teachers' careers typically exhibited horizontal movement among positions at one level of a work hierarchy. Career movement for the Chicago teacher was movement from one school to another. Teachers beginning careers in the Chicago system filled the need for teachers in the "slum" schools. From this beginning, Becker found two major types of careers developed. One career variety included an immediate attempt to move to a "better" school in a "better" neighborhood. Thirteen of the sixty interviewees, however, demonstrated a career variety which included a permanent adjustment to the "slum" school situation. Few teachers made the effort to ascend through the school system's administrative hierarchy.

Career Patterns of Selected Professionals

Kimmel (15) surveyed the job mobility of men and women psychologists. Respondents were asked for the date of doctorate or terminal degree, the area of specialization within psychology, and a chronological listing of all jobs held since the terminal degree was obtained. Kimmel found that the mobility of men and women was not significantly different. Women with master's degrees were least mobile. According to Kimmel the numbers of jobs held by men and women were similar. The level of the highest position reported differed by sex. Men achieved the rank of full professor and positions of administration in a university more often than women and also held the rank of assistant professor more frequently. Kimmel found that more men than women had the doctorate degree. Also, men more often than women reported changing jobs in order to achieve

professional advancement, or because of job dissatisfaction. Women more often than men, however, changed jobs because the job terminated (grants ended, fellowships expired), the spouse moved, or pregnancy or ill health occurred.

Marwell et al. (16) studied residence location, geographic mobility, and attainments of women in academia. They indicated that male and female academics have very different residence patterns. Women were concentrated in the largest urban centers and were less likely to switch communities when changing institutions. Marwell indicated that much of this sex difference in location preference and movement pattern was attributable to the constraints under which married academic women must manage their careers. Marwell provided tentative evidence that the status difference between men and women in academia is attributable, in part, to the geographic limitations on the locations of married women, as these prevent making strategic job changes to advance career prospects.

Gahlhoff (17) studied the career pattern development of school counselors. The Career Pattern Questionnaire provided information concerning positions held, job activities, salary, and the enrollment of the school in which employed. Forty-five per cent entered the field directly following preparation and remained in it during the six year period thereafter. An additional 10 per cent did not enter the field immediately but did so some time during the next five years. Thirty-two per cent initially entered the field but later withdrew and 13 per cent never entered the field during the six years following preparation. The work activities of the counselor during the first year remained the primary activities during the next five years. The belief that counseling is a stepping stone to other positions was supported somewhat by this study.

Ten per cent of those prepared as counselors entered school administration. Others entered positions in school psychology, counselor education, student personnel services, and university teaching. Gahlhoff characterized school counseling as a brief or marginal career for many who enter counselor preparation.

A study to determine the professional practice patterns of Michigan State University graduates in Veterinary Medicine was undertaken by Giuliani and Centra (18). The veterinary graduates' present position, type of specialty practice, and total number of years in which each was actively engaged in the profession were studied. Although the career patterns of women were characterized by interruptions, the assumption that women veterinarians quickly become professionally inactive because of marriage and family responsibilities did not appear valid. In most cases, women did discontinue practice or practiced part time in order to assume child-rearing responsibilities. The women practiced 78 per cent of the total number of years they might have practiced, however, and 90 per cent of them intended to continue or return to full-time practice. This study found that women were deeply committed to the profession and claimed a great deal of satisfaction from their work. The careers of women veterinarians were characterized by participation in only a few of the specialties within the profession. Also, women practiced part time more often than men.

Changes at Mid Career

Hiestand (19) studied students over thirty-five years of age in graduate or professional schools who returned to school as part of a process of changing their careers. Reasons for entering or reentering school and the type of occupational mobility or career change sought were

examined. Factors which encourage or discourage people from making a significant change in the nature of their careers during middle age also were studied.

Hiestand (19) stated that the need for substantial changes in the nature of the careers of persons at a professional level is appearing and will probably be more important in the future. The underlying causes of this need seemed to be the rapid growth in the number of persons in the professions, the increasing extent to which professional skills are acquired in educational institutions, rapid changes in the content of the professional fields, the emergence of many new specialties within fields, and continual change in the number of professional level positions in different fields, industries, and enterprises. Hiestand believed that in light of these trends it appeared that there might be problems in finding an opportunity to change one's career by attending a professional or graduate school in middle age. Interesting and optimistic possibilities for continued development of people through middle age were revealed in the study.

Roberts' (20) research dealt with the phenomenon of successful middle-aged careerists who dropped out of their occupations into alternative life styles. The research attempted to provide a composite picture of the dropouts: their motivations for dropping out; pre-dropout situation and personality; present concerns and status; and the process of dropping out. Roberts noted that for the dropouts' values appeared to have become less extrinsically centered. Roberts explored the philosophical and practical meaning for society of the practice of changing occupations in midlife.

Specialty Career Choice: The Case of Physicians

Studies in the literature relating to changes in specialties within a profession are limited. The key research focused on the medical profession.

Zuckerman (21) studied the effect of structural factors within the medical education system on the evolution of alternative career outcomes. The structural factors studied were the type of medical school (academic or clinical), academic standing of individual students, type of internship, residency training, classification of residency hospital, and board certification. He found no substantial support for the notion that medical education consists of a sequential series of structural factors linked together in relatively few, fixed patterns leading to different career outcomes.

According to Zuckerman (21), the matter of career choice within medicine has long been of interest to social scientists, medical educators, and others concerned with medical care and health manpower. A number of studies concerning specialty choice of medical students are reported in the literature (22-25). McGrath and Zimet (22) analyzed sex differences in specialty choices, beliefs about the status of a specialty, and personality characteristics of female and male medical students. Marienfeld (23) studied the career goals of entrants to medical internship programs. Each individual was traced to determine career plans after the completion of thirty-six months of internal medicine residency training. Each physician's eventual career plans were then compared with originally stated goals.

The purpose of the Zimny and Senturia (24) study was to determine the consistency and change of specialty choices of medical students. In

the first month of each of four successive years a class of medical students was asked to indicate their specialty choice. The results showed that not many students manifested a high degree of consistency of specialty choice and that the majority of students manifested only the minimum degree of consistency of choice of the various specialties. Only one of the ninety-three students definitely chose the same specialty in each of the four years.

Roos and Fish (25) studied change in medical career preferences. They found that while the career preferences of students when considered as a group remained remarkably stable over the four-year medical experience, the career preferences of individual students underwent considerable change.

Although many studies concerning specialty choice of medical students are reported in the literature, little information is available concerning the changes that occur in the selection of specialties after a graduate is already in practice (26). Holden and Levit (26) did a longitudinal study of physicians' self-designated specialties in 1971 and 1976. Between 1971 and 1976, 16 per cent changed their specialty.

The physicians studied by Spitzer et al. (27) were in their tenth year of professional work following mandatory internship. The study was planned with an emphasis on correlations of certain entry characteristics with the type of professional activity and the location of practice eventually chosen. The study examined the distribution of those known to practice a specialty and reasons for changing from general practice to a specialty. Of the 149 physicians in the class, less than 5 per cent were not practicing medicine and 2 per cent stated that medicine was not their primary gainful activity. Of the twenty-four women in the class,

seventeen were practicing at least 76 per cent and four, 26 to 75 per cent of their time. The place of longest residence before entrance to a university was a good predictor of ultimate location of practice but not of type of practice. General practice or family medicine had been chosen by 39 per cent of the class and a specialty by 56 per cent.

Cohen et al. (28) surveyed the career patterns of women physicians who had ever been licensed to practice medicine in Connecticut. They examined professional activities of the women physicians and patterns of practice, their productivity, earnings, interruptions in careers, and conflict resolutions in relation to the factors likely to influence these patterns. Active professional status was reported by 87 per cent of the women physicians. Almost three quarters of the respondents reported patient care as their major activity.

Cohen et al. (28) stated that over the last decades women physicians have chosen to work in settings and institutions which allow fixed hours and part time practice. A higher proportion of single women physicians worked full time than did married or formerly married physicians. A higher proportion of women without children reported working more than thirty-five hours per week, whereas women with more than two children had a higher rate of part time employment. Nearly 40 per cent of the women reported no interruptions of one month or more in their careers. Single women physicians had fewer interruptions than married women. The mean length of the interruptions for all respondents was twenty-four months. A small number of women accounted for long absences, 13 per cent of all respondents reported interruptions of five years or more. The most frequently stated reasons for career interruptions were pregnancy and childrearing, followed by illness and husband's career. Regarding

conflicts arising from the dual responsibilities of career and family demands, many of the female physicians had chosen solutions involving both relinquishing part of family responsibilities and reducing workloads.

Women in the Labor Force

Zytowski (29) stated that women's roles have been traditionally organized around the nurturance of children and the support of the effort of the family's breadwinner. Also according to Zytowski, acceptance of women into the work force in World War II helped set in motion changes in the social role for women. Ginzberg (30) contended that the post World War II decades provided a conducive environment for women to find employment out of the home, not only because of reduced competition from males but also because the service sector of the economy was expanding rapidly, a sector that had traditionally made extensive use of part-time workers and of women.

A report of the U.S. Department of Labor (DOL), Women's Bureau (31) showed that the upward trend in the labor force participation of women since World War II has been due almost entirely to the changed labor market behavior of married women. Data from the U.S. Department of Labor (32) indicate the profile of the average woman worker has changed greatly. In 1920 the average woman worker was a twenty-eight year old, single, factory worker or clerk. Today she is older and married and can be found in any of a number of occupations.

Also according to reports of the DOL Women's Bureau (32), the likelihood that a woman will be in the labor force at any particular time varies considerably according to her age, marital and family status, education, race, and if married, her husband's income. The participation

rates of wives tend to: (a) increase with more years of education, (b) decrease if the woman is the mother of a preschool-age child, and (c) decrease with the husband's income rising above \$10,000 (31). According to Ryscavage (33), in recent years the labor force rate has been rising more for wives whose husbands' incomes were in the top half of the income distribution than it has for those whose husbands' income were in the lower half.

The U.S. Bureau of Labor Statistics (31) annual averages for 1973 indicated that women who had left the labor force within twelve months gave school or home responsibilities as the main reason for leaving. In 1972 the DOL (32) found that of the 43 million women who were not in the labor force 36 million were keeping house, nearly 4 million were students, and more than 3 million were out of the labor force because of ill health, disability, or other reasons. An increasing proportion of young married women, with and without children, were remaining in the labor force.

Labor Force Participation of Mothers

Data from U.S. Department of Labor (31) indicate the rise in the labor force participation rate of young women in their twenties and early thirties has been most striking among mothers. Between 1940 and 1974, the labor force participation rate of mothers in the United States quintupled, reflecting one of the most significant labor force changes during this period. The presence of young children in the family had a negative effect on the mother's labor force participation, however (32).

Married women continue to have the lowest participation rate in the work force (31), which may be explained in part by the specialization of labor within a great many married households. While the pattern is

undergoing considerable change, husbands continue to assume the primary responsibility of providing income and wives frequently concentrate on care for children and home.

According to Garfinkle (34), one of the major determinants of a woman seeking employment relates to the presence of children, particularly children of preschool age. Garfinkle reported that the birth of the first child was the most important reason for leaving the work force and that the arrival of additional children increased the likelihood that the mother will not work outside the home. Ryscavage (33) contended that childbearing and childrearing usually have at least a temporary impact on labor force activity, although their deterrent effect is much less pronounced today than in the past. U.S. Department of Labor (35) data revealed that in March 1978, more than half of all mothers with children under age eighteen were in the labor force. Sixty per cent of those with children age six to seventeen and nearly 40 per cent of those with children below age three were working or looking for work. Ten years earlier, the proportions were 50 and 25 per cent, respectively.

Garfinkle (34) stated that the more children a woman has, and the later she has her last child, the shorter is her expected work life. The importance of childbearing patterns on work life is indicated by estimates which show that the birth of a child reduces the average number of years a married woman can be expected to spend in the work force by about ten years. The birth of each additional child appears to reduce further the work life expectancy from two to three years for each child.

Data from the Labor Department (31) indicated advances in birth control techniques facilitated the decline in the birth rate and consequent increase in women's labor force participation. The number of

married women (husband present) in the labor force in March 1974 was almost five times as large as in 1940; whereas the total population of married women (husband present) was only about 1.6 times as large.

Ginzberg (30) stated that the dissemination and use of improved birth control methods must be considered as a factor in the radical reductions in the birth rate. He also contended that it is a reasonable assumption that part of the decline must be the result of the growing recognition by many women that their ability to combine home and work would be significantly affected by the number of children they have. According to Ginzberg, if a woman limits her children to one or two and spaces them closely together, she has much less difficulty returning to work than if she waits to return until the youngest of four children is in school.

According to Garfinkle (34), a far greater portion of a woman's work life occurs after she has raised her family and re-entered the labor force. Most thirty-five year old women have completed their families. Garfinkle found that the work life expectancy of a thirty-five year old woman who has completed her family and who no longer has responsibility for the care of young children is twenty-four years.

The growth in female-head families has been due primarily to increases in divorces and separations. The financial need in the absence of a husband in female-head families is reflected in the relatively high rate of labor force participation for these women.

The highest rate of labor force participation for women family heads was among those forty-five to fifty-four years of age, when most of their children would be old enough to allow the mothers more freedom to work outside the home (31). Data from the Labor Department (32) showed that

almost as many women work as do not who have children under six years old and are widows, divorcees, or women separated from their husbands. If they had school-age children only, about two out of three of these women were in the labor force. Garfinkle (34) contended that the special problems of working mothers who have to support families without the help of husbands may require the development of new and different programs.

According to McNally (36), young children at home generally inhibit or prevent work outside the home because adequate alternative care is either not available or too costly. Garfinkle (34) stated that the availability of more and better day care facilities for children might make it easier for many women who want to work to reenter the labor force.

Patterns of Work

Zytowski stated (29) that to characterize the work histories of women, it is necessary to specify the distinctive elements of their vocational participation. Zytowski specified age of entry, span of participation, and type of work or degree of participation as elements of vocational participation. He indicated that a very early or late entry, a relatively brief span, and a low degree of participation would describe a mild vocational pattern.

According to Garfinkle (34), the pattern of work during the lives of women is, for the most part, quite different from that of men and the duration of their work life is generally shorter. A DOL Manpower Report indicated that married women, in particular, have a less continuous work career than men. Women begin work careers at about the same age as men, but frequently leave the work force a few years after they marry and have children. The Manpower Report also stated that women's usual patterns are

to work a few years after they complete their education, to leave the labor force to raise a family, and to return to the labor force after their children have reached school age or are grown.

Data from the DOL (31) showed a particularly large difference in labor force participation rates of single and married women in the twenty-five to thirty-four year old age group, the period when women are most likely to have very young children. In March 1974 the employment rate for single women was 82 per cent, compared with 46 per cent for married women.

Garfinkle (34) found that women who never marry have the most continuous and longest lifetime attachment to the labor force. Women who never marry may have a longer work life than men. Also, according to Garfinkle, childless married women also have a long working life but it is shorter than that of widowed or divorced women.

Garfinkle (34) contended that because a very large proportion of married women become widowed, divorced, or separated from their husbands and have to provide for themselves, it is essential that they prepare for the possibility of a lengthy work career. Garfinkle also stated that widowed and divorced women have continuous work histories, particularly if they do not remarry. According to DOL data (32), married women are more likely to be workers than are widows (many of whom are elderly), but they are less likely to be in the labor force than divorced, separated, or single women.

Other Factors Affecting Labor Force Participation

Ginzberg (30) stated that whether a woman works regularly, periodically, or not at all is greatly affected by the education level which she has achieved. The more education a woman has had, the more likely she is

to work. According to Gordon (37), labor force participation rates of women with some postgraduate education are markedly higher than those with only a bachelor's degree.

Ginzberg (30) suggested that many women undertake additional education for occupational reasons. Once they invest time, money, and energy in attaining a college or higher degree, their interests in a particular field are likely to be awakened or strengthened to a point where they will seek to gratify them through work. According to McNally (36), the more highly educated women are the more likely they are to be in the labor force; because they can command more interesting jobs, usually better pay, and also can make use of their training, avoiding some of the duller activities connected with homemaking.

McNally (36) cited the market wage of the wife and unemployment as other factors affecting women's labor force participation. Returns from working will be greater and will more likely exceed the cost when earnings are higher. McNally also stated that high unemployment rates imply that jobs are hard to get and the job search will be prolonged; hence women will refrain from trying to find work. Alternatively, high unemployment could mean that married women need to seek jobs if their husbands are jobless.

Part Time and Part Year Work

Responsibilities of children and home cause mothers not only to have lower labor force participation rates than women of the same age who have no children, but also to have greater limitations on the number of hours they can work (31). According to DOL data (32), part-time employment frequently is preferred by married women with family responsibilities, students, and women sixty-five years of age and over. DOL data (31) also

indicate that 42 per cent of the women who worked at some time in 1973 worked full time for the full year, compared to 68 per cent of the men. Eleven per cent of the women worked part time the year round. Forty-seven per cent worked only part of the year. Only 28 per cent of the men worked only part of a year.

According to DOL reports (31), reasons for part-year work differ between women and men. Nearly half (47 per cent) of all women who worked less than fifty weeks in 1973 stated that taking care of home responsibilities was the principal reason for not working a full year. Next in importance were "going to school" (21 per cent) and unemployment (16 per cent). Among men, unemployment and school were of first and equal importance in explaining why they worked only part of the year.

Reports from the U.S. Department of Labor (31) indicate that the nature of some jobs is such that they require a continuity of performance, with little seasonal fluctuation. Women in these occupations were usually year-round full time workers. Data also compiled by DOL indicated 64 per cent of the women employed as managers or administrators and 56 per cent of the female professional and technical workers worked full time year round.

Tenure and Turnover

U.S. Department of Labor (38) data revealed that women workers have favorable records of attendance and labor turnover when compared with men employed at similar job levels and under similar circumstances. Data also showed that occupations with the shortest tenure tended to be those in which large proportions of women were employed. Men in these occupations also tended to have less tenure than men in other occupations.

Some of the differences in job tenure between women and men may be due to their different occupational distribution (31).

U.S. Department of Labor (31) analysis of employment in January 1973 indicated that 33 per cent of the men had been on their jobs less than two years, whereas 43 per cent of the women had such tenure. Thirty per cent of the men, however, and only 18 per cent of the women had ten or more years of service. Overall, employed women averaged 2.8 years of continuous service with the same employer compared with 4.6 years for men. The length of time on the job varied directly with the age of the worker, but was shorter for women than for men at all ages over twenty-four. Single women who were twenty-five years of age and over had been on their current job about the same length of time as men in the same age group, reflecting the single women's self-supporting status and freedom from responsibilities to husband and children.

Female Occupations

Ginzberg (30) stated that women workers are concentrated in a relatively small number of occupational fields, and they often account for a high proportion of all workers within that occupation. According to Garfinkle (34) women working in professional occupations typically have smaller families and a longer work life expectancy than women in other occupations. Women professional workers are most likely to be teachers, nurses, and allied health workers, while men are most frequently employed in professions other than teaching and health (32). Women are less likely than men to be managers and officials and far more likely to be clerical workers. According to Gordon (37), the number of women in what she called the "learned professions," or those requiring a number of years

of graduate or professional education, has been relatively unimpressive. Gordon contended that the small percentage of women in the learned professions is due to lower level of career aspiration among women and the fact that a great many women who have the ability to go into such professions are marrying at too early an age to make prolonged education feasible. Williams (39) reported that the change in both the mean and median proportion female in occupations is about half the change in the proportion of women in the labor force, indicating that as women have entered the labor force there has been a strong tendency to enter occupations which already have large percentages of women.

Concern for the health of the American population and especially of older persons resulted in enlarged medical facilities and expanded health programs which provided increasing numbers of jobs for women as nurses, therapists, dietitians, pharmacists, clinical laboratory technologists and technicians, and other professional and technical health workers. According to DOL data (31), a large group of professional women are employed as health workers. In 1973 they numbered 1.2 million and made up about one-fourth of all women professional workers.

In the 1960's the services industry became the largest industry division in employment of women workers. The largest industry within the services division was the medical and health services, employing more than 3 million women in January 1974. In January 1974, eight out of ten employees in the medical and health services industry were women (31).

Problems in Women's Careers

Oppenheimer (40) contended that because the labor force participation of women tends to be intermittent, jobs requiring considerable

on-the-job training entail a certain risk for the employer. According to Ginzberg (30), most employers are disinclined to make in-service and extramural educational and training opportunities available to women for fear that their investment will be lost because so many women withdraw from the labor market. Ginzberg stated that this reasoning ignores the fact that many women will return shortly, as well as the fact that a large number of men also quit. Oppenheimer (40) agreed that many women cannot get necessary on-the-job training or promotions because employers believe that it is not worth the risk and that women cannot be depended upon to be around long enough.

Oppenheimer (40) stated that utilization of women in certain jobs depends to some extent on the strategic advantage of career continuity. Continuity may be important to acquire skills, to maintain skills, to establish seniority, or to prove one's loyalty to an organization. Medicine and other science fields require continuity of involvement to maintain skills and to keep abreast of a rapidly changing profession. Continuity of employment within one firm may not be essential, but continuity of involvement within an occupation or industry may be of great importance.

Garfinkle (34) contended that it is at least as important to provide comprehensive job training and retraining for women about to re-enter the work force as it is for women about to begin their first job, especially since the largest portion of women's work life typically occurs after their children have grown. Garfinkle also stated that the professionally trained women who leave the labor force for a considerable period of time can use retraining. Professional training for updating obsolete skills and acquainting women with new knowledge developing in professional areas

of work would enable some women to take jobs fully utilizing their abilities when they re-enter the labor force.

Oppenheimer (40) observed that for women high occupational aspirations usually were not seen as promoting the welfare of the family, but rather, as competing with it for the woman's scarce resources of time, energy, and emotional interest. As a result of that, she contended that women's occupational aspirations were frequently low. Also, regardless of the actual level of female motivation, employers tend to believe that women have lower career aspirations than men and act accordingly in their hiring and promotion policies.

Kanter (41) observed that opportunity structures shape behavior in such a way that they confirm their own prophecies. Those people set on high-mobility tracks tend to develop attitudes and values that impel them further along the track: work commitment, high aspirations, and upward orientations. Those set on low-mobility tracks tend to become indifferent, to give up, to develop low-risk, conservative attitudes, and thus to "prove" that their initial placement was correct.

Kanter contended that the structure of organization plays a powerful role in creating work behavior. She hypothesized that women in low-mobility organizational situations develop attitudes and orientations that are sometimes said to be characteristics of women. Kanter asserted, however, that these characteristics should be viewed as more universal human responses to blocked opportunities.

Ginzberg (30) contended that women's careers are handicapped by the inability of many women to respond to job opportunities that require more time than the regular work week and by the inability of many women to accept jobs which are not near their homes. He observed that few

employers have recognized the extent to which a job transfer or job change for a man increasingly requires a satisfactory situation for his working wife. Ginzberg stated that with respect to utilization, employers give unequivocal evidence that they prefer stupid men to smart women. They are usually unwilling to make even modest adjustments in hours, vacations, and other scheduling to attract able women.

According to Oppenheimer (40), many professional and managerial careers require a certain amount of geographical mobility. A married woman is seriously handicapped in this respect. She further stated that the husband's career usually has priority and if it is advantageous for him to move across country, his wife may have to leave a good job without a job in sight at their destination. Oppenheimer also observed that it may be necessary for the husband to stay put while the career opportunities of his wife would be greatly enhanced if they could move.

Rapoport and Rapoport (42) reported that the wives they studied found their husbands' support important to them. The fact that many of the men wanted their wives to work helped to transform a suppressed wish to continue a career into something that was acceptable. The woman's career was desired for the overall benefit of the family and not simply as a personal wish of the wife.

Rapoport and Rapoport (42) also stated that when women in our society enter the workforce it has been conventionally assumed that when conflicts arise between the demands of the two jobs they will be resolved in favor of the man's career. They found that the couples they studied in the 1960's tended to encourage equal career development for the wife so long as it did not entail too much change for the husband's lifestyle; whereas young couples in the 1970's seemed to engage more in a dialogue

that involves joint planning and equitable exchanges or balances of advantages.

Continuing Education

Schwartz and Gobert (43) believed that one of the greatest challenges facing dietitians and other health professionals today is keeping up-to-date with a rapidly expanding body of knowledge in the health sciences. According to Levine (44), scientific and technological knowledge has been developed more in the past fifty years than it had in the nineteen centuries preceding. Pennington and Moore (45) stated that technological and social changes alter the knowledge base for professional practice and threaten the practitioner with obsolescence. Increasing specialization, changes in work settings, and increasing sophistication and complexity of client systems are some of the outcomes of technological and social changes. Initial professional training rapidly becomes inadequate, which forces practicing professionals to keep up with recent developments.

Watson (46) contended that the increased knowledge in science, technology, management, and behavioral sciences coupled with the social pressures for higher levels of professional competency and performance has emphasized the need for further education. Schwartz and Gobert (43) stated that continuing education may be viewed as a vehicle for acquiring new information and techniques, and incorporating both into professional practice.

Continuing Education Defined

Pennington and Moore (45) defined continuing professional education as a specialized form of adult education designed to meet the changing

educational needs of working professionals. They also stated that continuing professional education can be described as any kind of teaching and learning activity that builds upon previous educational or occupational experiences that support a particular discipline and is designed to increase competence in professional practice. The American Dietetic Association (A.D.A.) (6) defined continuing education as that which follows the basic preparation for the profession of dietetics and recognizes that learning is a life-long process. Schwartz and Gobert (43) contended that the need for continuing education begins when a graduate enters the profession.

Objective of Continuing Education

Schwartz and Gobert (43) stated that the ultimate goal of continuing education for dietitians is to improve professional performance and thereby increase the quality of health care available to the public. Wittrock (47) described a similar objective for continuing education in dentistry as aiding practitioners in increasing their capabilities, resulting in better patient care. Stross and Harlan (48) stated that participation in continuing medical education is perceived as a means of maintaining competency of imparting new knowledge and skills, correcting educational deficiencies, providing reassurance, and stimulating intellectual curiosity.

A.D.A. (6) reported that the objectives of continuing education are: (a) to enhance the knowledge of the individual member, thereby improving their competency and (b) to enable the individual member to contribute to the advancement of the profession of dietetics. Watson (46) contended that for dietitians the major reason for participating in continuing education activities is to become more effective as professionals.

Mandatory Continuing Education

Strother and Swinford (49) contended that interest in requiring continuing education as a condition for recertification and relicensure had grown in the last three or four years. They also stated that continuing education requirements take a variety of forms. They may be classified into mandatory and voluntary continuing education standards. Pennington and Moore (45) reported that the typical requirements for mandatory continuing education, whether designed by a state legislature or by a professional organization, are that each professional must participate in a designated number of hours of approved continuing education activities during a specified period of time. These requirements generally are connected with continued membership or recertification by a professional association or relicensure by a regulatory agency of state government.

Strother and Swinford (49) studied fourteen professions in which certification or licensure was common. The study was undertaken to gauge the extent of the movement to require continuing education in the professions. They found that in 1975, thirty-eight states had some type of continuing education requirement in one or more of the fourteen professions surveyed. In addition, at least three national groups required continuing education as a condition for continued membership. Of the fourteen professions studied, at least eight had some kind of continuing education requirement in one or more states, or reported that they had the question under study. According to Strother and Swinford, the trend seemed to be strongest in the health professions, accounting, and law.

Continuing Education in the Health Professions

Boissoneau (50) reported that the health professionals involved in continuing education include dietitians, physicians, nurses, dentists, pharmacists, nursing home administrators, and medical record practitioners and that while dietitians do not have mandatory requirements for continuing education, a certain number of hours of continuing education for each five-year period are required for maintaining registration. Chouinard (51) contended that in the United States a situation is rapidly developing that may require physicians to document participation in continuing medical education for continued licensure and professional association membership.

According to Howard (52), The American Medical Association supports the principle of continuing medical education strongly, but it recommends that such education be on a voluntary basis. Stross and Harlan (48) found that many states are either moving toward, or have adopted legislation that mandates physician participation in continuing medical education. Howard (52) reported that medical practice acts in fifteen states give the state boards of medical examiners authority to require physicians to produce evidence of continuing medical education as a condition for licensure reregistration to practice medicine. Wittrock (47) stated that continuing education is a necessity for relicensure in several states, and that this trend seems to be gaining approval as an accepted part of the practice of dentistry.

Effectiveness of Continuing Education

Baer (53) stated that some regulatory agencies are requiring evidence of continuing education for renewal of annual licenses, although it has

yet to be shown that mandatory continuing education reduces or prevents incompetence. Strother and Swinford (49) reported that very little attention had been given to evaluating the amount and kind of learning that takes place during continuing education sessions. Pennington and Moore (45) indicated the following as some of the educational issues that have emerged concerning continuing education to maintain an adequate competency level: (a) Can continuing professional education or any kind of education guarantee competent professional practice? (b) What is the relationship between knowing and doing? (c) Can mandatory continuing education for professionals guarantee competent practice?

According to Howard (52), practically no definite evaluation has been done to determine the effectiveness of mandatory continuing education in terms of changed behavior or improvements in the quality of health care. Chouinard (51) stated that there is no proof that requiring continuing medical education for licensure would result in better physician performance. Stross and Harlan (48) reported that it is hoped continuing medical education participation will lead to improved patient care, fewer instances of malpractice, and reduced health care costs, but the literature provides no evidence for these conclusions.

Levine (44) concluded that no system of credit hours or continuing education units can, of itself, create the assurance that learning has, in fact, taken place. She contended that credit hours chosen without rhyme or reason or credit hours for their own sake do not add up to an educational experience.

Strother and Swinford (49) stated that in most instances evidence of registration constitutes sufficient evidence of attendance and statutes are silent on the subject of measuring what learning took place during

continuing education sessions. Howard (52) reported that in the mandatory continuing medical education programs at present, it appears that attendance is the criterion used as the major measure for compliance with legal requirements. Howard contended that attendance at formal courses does not guarantee learning. He used the analogy that one can get a college degree without getting an education.

Frandsen (54) urged all national organizations representing higher education to take a stand on the need to assure the role of the university, especially the continuing education divisions of the universities, in standard setting, planning, development, and presentation and evaluation of results for all aspects of programs leading to relicensure in the professions.

The Individual and Continuing Education

Baer (53) stated that a system of recognition, certification, and accreditation is being established that stresses traditionally oriented, organized programs and fails to recognize the needs, objectives, initiative, and responsibility of the individual in planning and seeking his/her own continuing education. He contended that the danger of the evolving emphasis on mandatory continuing education is that while it cannot achieve its objective of preventing incompetence, it discourages the more imaginative and inquiring person from seeking meaningful but unconventional educational experiences. According to Howard (52), establishing legal continuing education requirements for reregistration of the license to practice medicine promotes a rigidity that does not allow for individual differences in learning.

O'Connor (55) reported that attendance at lectures has become synonymous with continuing education to the exclusion of all other means

of acquiring knowledge, because it is most easily measured. Bear (53) contended that group activities are easier to accredit than individual study. Also, because it is impossible to monitor one-to-one study situations and self-education through reading, individuals who do not fit into the formalized program of education will have difficulty proving continuing education efforts.

O'Connor (55) believed that reading journals or using audiovisual material are far more efficient than the usual lecture or seminar, yet not many programs give credit for time spent in these activities. According to Baer (53), continuing education should be less oriented toward authority, but should recognize individual initiative. Baer also stated that although some persons have no desire or capacity to learn, others wish to find and design their own educational opportunities.

Wittrock (47) contended that if continuing education is mandatory, the courses should be of high quality and allow both teacher and practitioner to determine if any worthwhile changes in patient care have occurred as a result of participation in the courses. Pennington and Moore (45) concluded that continuing professional education must be considered as only one part of a larger system that is addressing public concerns about competent professional practice. They also stated that continuing professional education can contribute to the improvement of professional practice, but it can guarantee nothing. Chouinard (51) asserted that rather than discussing the pros and cons of requiring continuing medical education for continued licensure, it would be more fruitful and reasonable to encourage the development and evaluation of effective methodologies linking education to patient care. He also stated that if continuing medical education is to become a significant

link between medical education and medical practice, well-defined, measurable educational objectives must be selected and coordinating mechanisms established. Pennington and Moore (45) contended that the individual professional should assume personal responsibility for maintaining professional competence. They also must assume responsibility for selecting effective ways to stay current and extend themselves within the profession.

Wittrock (47) believed that if continuing education is mandatory, the practitioner should have the opportunity to choose an education that has continuity rather than one made up of unrelated one- or two-day courses. According to Howard (52), opponents of mandatory continuing medical education for the health professions note that little effort has been made to determine real educational need as a basis for the continuing education offerings. Schwartz and Gobert (43) indicated that a fundamental element of all effective educational experiences is systematic planning based upon well-defined learning needs.

Burgess (56) studied the level of self esteem and career aspiration held by nurse participants of continuing education programs in nursing and the relationship between these variables. The study also examined selected background variables of the nurses in an effort to identify statistically significant relationships between these biographical factors and self esteem or career aspiration. Burgess stated that marital status, children, length of nursing experience, present position, or husband's educational or occupational level, appeared to bear little relationship to the self esteem or career aspiration of the nurses studied. The reasons for attending continuing education programs were not associated with differences in self esteem or career aspiration scores. The

statistically significant relationships found in this study were between self esteem and level of projected goals, and between career aspiration and further educational plans. Those nurses who were interested in further formal education scored higher on career aspiration and self esteem than did their less educationally-motivated counterparts.

Registration and Continuing Education in the Dietetic Profession

The Committee to Develop a Master Plan for Continuing Education Efforts of The American Dietetic Association (57) acknowledged that continuing education represents one means by which a dietetic professional can maintain competency. At the same time, the Committee was aware of the shortcomings of continuing education as evidence of competency assurance. Quality of continuing education programs, in the opinion of the Committee, is dependent upon careful assessment of learner needs, expert planning, skilled implementation, and evaluation. Programs planned without these components have no quality control and offer little assurance of competency for participants. The Committee recommended that The Commission on Dietetic Registration examine a variety of methods for continued certification, including continuing education.

In 1976, the Commission of Dietetic Registration (58) established a working group to investigate present standards for maintaining registration and to recommend revised requirements for continuing education. The Commission surveyed two thousand randomly selected registered dietitians to solicit their opinions about the present standards and competency assurances for Registered Dietitians (R.D.).

Of the R.D.'s surveyed, 85 per cent believed that the present method of maintaining registration status was satisfactory. Ninety-seven per

cent indicated that remaining registered should represent an active process synonymous with continuing professional development. Sixty per cent believed that to maintain registered status, a professional dietitian should present some evidence of a self-planned educational program to assure continued competence. Only 23 per cent responded that professional dietitians should be reregistered or recertified periodically by reexamination. But 67 per cent replied that reregistration should incorporate a requirement for the assurance of continued practitioner competence.

When asked what activities contributed to quality in professional dietetic practice, 85 per cent listed formal study and practitioner experience as most important. Only 3 per cent believed that recertification by examination every five years would contribute to, or indicate quality in professional dietetic practice.

Boissoneau (50) contended that although continuing dietetic education requirements for maintaining registration have been established, this does not guarantee that a dietitian will indeed keep up to date. He also stated that devotion to the profession and conviction of the need for continuing education also are required to assure that continuing education does occur and that dietitians apply the new knowledge in their daily practice. The A.D.A. Position Paper on Continuing Education (6) stated that dietitians have the responsibility to evaluate their own educational needs and to initiate plans for self-development. Individuals must accept the responsibility for determining the value of an educational activity in terms of their own needs.

METHODOLOGY

The Study Sample

The sample for the study was limited to female hospital and university medical center dietitians employed half time or more, with birth dates between 1932 and 1949. Dietetics is a profession in which men constitute a small minority. Therefore, men were excluded from the study for two reasons: (a) the A.D.A. manpower survey (8) in 1972 indicated that less than 2 per cent of the membership were male; and (b) studies indicate men's work patterns differ from those of women. Also according to the A.D.A. membership data analysis (59), the majority (51 per cent) of all employed dietitians work in hospitals and university medical centers. Therefore, the study was further limited to hospital dietitians since hospital dietetic practice represents the predominant professional role for dietitians. As stated in the objective, the study was concerned with experienced dietitians, or those in the mid career part of the maintenance career stage according to the typology of Hackman and Suttle (9). Most dietitians with birth dates between 1932 and 1949 have been in the work force over seven years and have at least eighteen years remaining to practice dietetics before retirement and thus could be classified as mid career.

A systematic sample of 1,126 names and addresses of the defined population was obtained from the A.D.A. membership data base. Dietitians outside the continental United States were excluded from the sample. From that list, a total sample of 600 names was selected randomly for distribution of the research instrument.

The Instrument

Instrument Development

In developing the first draft of the questionnaire, the A.D.A. membership questionnaire and instruments from studies of Cohen (60) and Burgess (56) were used. Questions were related to educational background, professional practice, career interests and plans, and continuing education experiences. Also, a job history and information on career breaks were requested. Nine hospital dietitians were contacted by phone and they agreed to participate in the pretest. At that time appointments were made to interview the dietitians concerning the questionnaire. A draft cover letter to accompany the instrument which explained the purpose of the study, an evaluation form, and a memorandum (Appendix A) confirming the interview appointment were mailed with the questionnaire. In the interviews the dietitians indicated which questions they found unclear or difficult to answer. The interviews with these dietitians helped in developing additional categories for questions and in clarifying the questions.

Draft two was revised based on comments of four members of The Commission on Dietetic Registration who completed and evaluated the questionnaire. Draft three was reviewed by three faculty members and four graduate students in the Department of Dietetics, Restaurant and Institutional Management at Kansas State University and the initial review group of dietitians. Along with the questionnaire, the reviewers received the draft cover letter, an evaluation form, and a memorandum (Appendix A) in which they were asked to review the questionnaire. In addition, five other dietitians were contacted by phone and they agreed to participate in the review of draft three. The draft cover letter, an

evaluation form, and a memorandum (Appendix A) in which they were asked to complete and evaluate the questionnaire were mailed with the questionnaire. Revisions for draft four were made based on comments from both review groups.

As a result of the pilot study, codes were devised for providing information on current and previous jobs held. The original questionnaire contained a chart for reporting major continuing education events attended by the dietitian. The dietitians in the pilot study found this question difficult to answer, therefore the question was revised to include a list of topics to be checked indicating the program emphases of seminars or workshops attended.

The Final Instrument

The final research instrument (Appendix B) was printed in booklet form with the first page printed on official letterhead indicating the title of the study and identifying the sponsor. The first section of the final instrument contained thirty-eight questions covering educational background, qualifying experience for A.D.A. membership, number of years as an A.D.A. member, professional practice in various areas of dietetics, number of years out of the work force, general job position information, continuing education, and future employment and educational plans. The second section was for recording information on all jobs held since becoming an A.D.A. member. A code sheet was provided to facilitate responses on job history. Information on each job included: dates of employment, position title, type of facility, description of duties, and reason for leaving. Also, information on breaks between jobs was requested.

Distribution of the Instrument

A cover letter (Appendix C) which explained the purpose of the study was mailed with each questionnaire. A self-addressed stamped envelope was included to facilitate return of the instruments. An informed consent statement was included in the letter ensuring confidentiality of the responses and anonymity for the participants. Each questionnaire was numbered to identify non-respondents for purposes of follow-up. Four weeks following the initial mailing a follow-up letter (Appendix C) and a second questionnaire were mailed to those not responding to the first mailing. Excluding five respondents who were dietetic technicians, the total return from the initial and follow-up mailings was 64.0 per cent (N = 381).

Data Analysis

Data Coding

Section One: Education and Demographic Information. Data from section one, questions one to thirty-eight of the questionnaire, were coded and key punched on three eighty-column cards for electronic data processing. A form was developed for coding questions one to twenty-two (card 1) because of the need for interpretations of calculations for various questions (Appendix D). Questions twenty-three to thirty-eight were precoded on the printed questionnaires or were coded directly on the returned questionnaires for key punching. Additional response categories were established as necessary. Format and codes for the cards (cards 2, 3) also are in Appendix D.

Section Two: Job History Data. Question thirty-nine asked respondents to describe each position held since becoming an A.D.A. member,

therefore only positions held since attaining A.D.A. membership, as indicated in question three, were used in the study. As described in the section on development of the instrument, standard codes (Appendix B) were developed to facilitate respondents' recording of information on position title, type of facilities, description of duties, and reasons for job change. For analysis of survey results, several response categories were collapsed and a coding scheme and form (Appendix D) were developed to record data on each job held which included the following:

- Job number, i.e., sequence of job
- Length of employment
- Basis of employment (full or part time)
- Number of dietitians on staff
- Position title
- Type of facility
- Brief description of duties
- Reason for leaving position

Two positions could be recorded on each data card; multiple cards were used as needed. Also, data on career breaks, or periods of unemployment between jobs, were recorded; i.e., length of period of unemployment and reason for decision to leave the work force.

Summary Data on Career Patterns. Because of the complexity of the information on job histories, a scheme was developed for summarizing the data on career patterns. An objective of the research was to study career changes in terms of shifts among specialties and functions within the profession and in relation to reports in the literature on women's work patterns to determine if dietitians' patterns were similar or different. Also, analysis was planned to include assessment of career patterns in terms of the Form and Miller strategy (12) for studying secure-insecure work patterns by periods of trial and stable employment. The scheme for recording summary data on job histories facilitated these

analyses. Summary data were compiled using question three of the questionnaire (length of A.D.A. membership) and question thirty-nine (record of job history) and included:

- years between A.D.A. membership and first job
- years in a dietetic position before becoming an A.D.A. member
- time in dietetic practice before first period of unemployment
- length of, and reason for, first break in employment
- number of career breaks of more than three months
- number of, and time in, non-dietetic positions since A.D.A. member
- dietetic specialty and function data:

- specialty at entry to profession (administration, clinical dietetics, community nutrition, or general dietetics)

- function at entry to profession (practice, teaching, consulting)

- pattern of changes in specialties and functions throughout career

- total time in each of the specialty and function areas

- specialty and function of present position

- secure and insecure (or trial-stable) work patterns, adapted from those of Form and Miller (12)

- total time in stable (those three or more years in length) and trial jobs (those less than three years in length)

A form and code sheet were developed for recording summary data (Appendix D).

Analysis

Frequency distributions were compiled for all items on the research instrument. Present practice area (administrative, clinical, or general) was used as the key independent variable for analysis of data. Where

appropriate, age and present practice area, or age alone were independent variables in analyses. Programs and routines of the Statistical Package for the Social Sciences (61) were used for all analyses, except two-way analysis of variance.

Chi square was used to study the relationship between present practice area and the following variables: age; educational background; data on A.D.A. membership, registration status, and current employment status; initial reaction to present position; interest in relocating; topics of seminars and workshops attended; and area of interest for graduate study. Chi square also was used to study the relationship between age and employment plans for the next five and ten years. Chi square with control for age was used to study the relationship between practice area and interest in various dietetic positions, plans for area of employment for the next five and ten years, ultimate professional objective, and factors affecting acceptance of a more attractive position in another geographic area.

Several variables were computed to assist in interpreting the data on career patterns and continuing education: career fidelity ratio, stable:trial ratio, and three continuing education emphasis scores. The career fidelity ratio¹ is the relationship of the total number of years employed in dietetic practice in relation to the total number of years in the profession (i.e., years as an A.D.A. member). A high career fidelity ratio translates into consistent employment in the profession throughout a person's professional life.

¹The concept of career fidelity was suggested by Dr. Maurice Hodgen, Dean of the Graduate School, Loma Linda University, as a means of studying commitment to a career.

The stable:trial ratio was computed as the ratio of time spent in stable jobs in relation to the time spent in trial jobs. Stable jobs are those jobs held for three or more years, and trial jobs are those held for less than three years. The stable:trial ratio was adopted from the Form and Miller study (12). A high stable:trial ratio means that more years were spent in stable than in trial jobs.

Three continuing education emphasis scores were determined by computing the number of management, nutrition and medical, or general topics included in workshops or seminars attended. A management score, a nutrition and medical score, and a general score were computed for each respondent.

Two-way analyses of variance (62) were used to determine effects of age and present practice area on the career fidelity and stable:trial ratios. One-way analyses of variance were computed to study the continuing education emphasis scores among groups defined by the three practice areas.

One-way analyses of variance also were used to study differences among practice groups on the following variables: years since award of degrees, last academic enrollment, internship, A.D.A. membership, and dietetic registration; years of employment; number of employers; number of jobs; years of unemployment; number of positions outside of dietetics; years employed outside of dietetics; and years in various practice areas.

RESULTS AND DISCUSSION

Characteristics of the Sample

General Information

The sample for the study was limited to female hospital and university medical center dietitians employed half time or more with birth dates between 1932 and 1949. Men were excluded from the study because only a small percentage of the A.D.A. membership are men, and studies indicate that men's work patterns differ from those of women (34). The study was further limited to hospital dietitians because hospital dietetic practice represents the predominant professional role for dietitians. Also, the study was concerned with experienced dietitians; most dietitians with birth dates between 1932 and 1949 have been in the work force over seven years and have at least eighteen years remaining to practice before retirement.

The key emphasis of the data analysis was by area of specialization or present practice area; administrative, clinical, or general dietetics. Some of the data were analyzed by age groups.

The age distribution of the sample by present professional practice area is shown in Table 1. A majority (57.1 per cent) of the dietitians had birth dates between 1944 and 1949. The administrative dietitians tended to be older; a majority of this group (58.4 per cent) had birth dates before 1944. Whereas, a majority of the clinical (68.7 per cent) and generalist dietitians (52.5 per cent) had birth dates between 1944 and 1949.

Table 1: Age distribution of sample by present professional practice area

time of birth	total group		present practice area					
			administrative		clinical		general	
	N	%	N	%	N	%	N	%
1932-1937	63	17.1	25	28.6	16	9.6	22	18.6
1938-1943	95	25.8	25	29.8	36	21.7	34	28.8
1944-1949	210	57.1	34	40.5	114	68.7	62	52.5

$$\chi^2 = 26.84, P \leq .05$$

Educational Background

Most advanced degree and emphasis of degrees are shown in Table 2. The highest degree attained by a majority (68.2 per cent) of the total group of dietitians was a bachelor's degree; 31.2 per cent had a master's degree. The emphasis for a bachelor's degree for a majority of the group was general dietetics or food and nutrition. Food and nutrition was the major for a majority (62 per cent) of those clinical dietitians with master's degrees. Food and nutrition also was the most frequent area of emphasis for the generalist dietitians. The administrative dietitians most frequent emphasis for a master's degree was food-service management (37.5 per cent) and the second most frequent was food and nutrition.

Table 3 shows the mean years since bachelor's degree and since last academic enrollment. The period of time since involvement in formal education was longer for the administrative dietitians than for the clinical or generalist. The pattern of these results might be expected

Table 2: Educational background of sample by present professional practice area

degree and emphasis of degree	total group		present practice area						χ^2
			adminis- trative		clinical		general		
	N	%	N	%	N	%	N	%	
most advanced degree									3.48
bachelor's	251	68.2	65	76.5	109	65.7	77	65.8	
master's	117	31.2	20	23.5	57	34.3	40	34.2	
emphasis of bachelor's degree									15.10
general dietetics foodservice	112	30.4	24	28.2	54	32.5	34	29.1	
management	40	10.9	14	16.5	11	6.6	15	12.8	
clinical dietetics	9	2.4	2	2.4	6	3.6	1	0.9	
food and nutrition	145	39.4	29	34.1	72	43.4	44	37.6	
home economics education	30	8.2	9	10.6	9	5.4	12	10.3	
other	9	2.4	1	11.1	6	3.6	2	1.7	
two areas	23	6.3	6	7.1	8	4.8	9	7.7	
emphasis of master's degree									40.16*
general dietetics foodservice	11	8.8	-	-	6	10.7	5	11.1	
management	15	12.0	9	37.5	1	1.8	5	11.1	
clinical dietetics	3	2.4	-	-	2	3.6	1	2.2	
community nutrition	10	8.0	2	8.3	4	7.1	4	8.9	
food and nutrition	57	45.6	7	29.2	35	62.5	15	33.3	
education, other	10	8.0	1	4.2	2	3.6	7	15.6	
other	20	15.2	5	20.8	6	10.7	8	17.7	

* $P \leq .05$

Table 3: Years since award of degrees, years since last academic enrollment, and graduate credits beyond bachelor's degree

	present practice area								F ratio ¹
	total group		adminis- trative		clinical		general		
	N	mean s.d.	N	mean s.d.	N	mean s.d.	N	mean s.d.	
years since bachelor's	350	13.06 ±5.60	84	15.18 ±6.27	160	11.88 ^a ±4.93	106	13.15 ^a ±5.53	10.08*
semester hours of graduate study, beyond bachelor's degree ^{2,3}	113	10.73 ±8.57	29	8.69 ±6.48	41	10.24 ±6.91	43	12.56 ±10.76	1.90
years since master's	112	6.84 ±4.43	20	7.40 ±3.50	54	6.02 ±3.53	38	7.71 ±5.86	1.85
years since last academic enroll- ment	263	6.91 ±5.48	58	9.12 ±6.24	115	6.32 ^a ±4.92	90	6.23 ^a ±5.33	6.31*

¹One way analysis of variance with LSD procedure for difference between means. Means in a row sharing a common superscript (^a) are not significantly different at the .05 level.

²Data on quarter hour credits were converted to semester hours.

³Excludes persons with advanced degrees.

* $P \leq .05$

when compared with the age distribution of the dietitians, where the administrative dietitians tended to be older than the clinical or generalist dietitians. Less than a third of the total group indicated semester hours of graduate study beyond a bachelor's degree (the data exclude persons with advanced degrees). The mean number of semester hours beyond a bachelor's degree for the total group was 10.73 hours. There was no significant difference in years since master's degree among the three practice areas for those holding advanced degrees; the mean years were 6.84.

A.D.A. Membership and Registration Status

Route to A.D.A. membership was through an internship for a majority (60.6 per cent) of the dietitians surveyed (Table 4). This percentage was lower than that for dietitians generally; A.D.A. membership information for 1978 (59) showed that route to membership for 76 per cent of the members was through an internship.

The second most frequent route was through a master's degree and experience or assistantship (13.3 per cent). Statistics from A.D.A. indicated the second most frequent route was through advanced study; approximately 8 per cent had achieved membership through this route, nationally. Three per cent of the A.D.A. membership completed coordinated undergraduate programs (CUP), while 2.2 per cent of the group studied had completed coordinated programs. Since coordinated programs are a relatively new means of attaining A.D.A. membership, most of the group studied had completed their education prior to the advent of CUPs. As expected, a low percentage of dietitians in the study achieved professional credentials through the CUP route.

Table 4: Data on A.D.A. membership and registration status

	total group		present practice area						χ^2
			adminis- trative		clinical		general		
	N	%	N	%	N	%	N	%	
route to A.D.A. membership									4.99
internship	223	60.6	67	57.0	98	59.0	68	58.1	
coordinated program	8	2.2	2	2.4	3	1.8	3	2.6	
internship-- master's degree	12	3.3	2	2.4	6	3.6	4	3.4	
master's degree and experience									
or assistantship	49	13.3	7	8.2	24	14.5	18	15.4	
traineeship	26	7.1	4	4.7	14	8.4	8	6.8	
bachelor's degree and experience	42	11.4	11	12.9	18	10.8	13	11.1	
other	8	2.2	2	2.4	3	1.8	3	2.6	
emphasis of internship									26.76*
general	198	80.2	44	74.6	92	82.9	62	80.5	
management	16	6.5	9	15.3	2	1.8	5	6.5	
public health	1	0.4	-	-	1	0.9	-	-	
clinical	27	10.9	3	5.1	14	12.6	10	13.0	
school foodservice	1	0.4	-	-	1	0.9	-	-	
other	3	1.2	3	5.1	-	-	-	-	
registration status									.44
registered	321	87.5	76	89.4	144	87.3	101	86.3	
nonregistered	46	12.5	9	10.6	21	12.7	16	13.7	
route to registration									17.89*
grandfather clause	146	45.5	50	65.8	52	36.1	44	43.6	
R.D. exam	175	54.5	26	34.2	92	63.9	57	56.4	

* $P \leq .05$

A majority of those who were internship graduates in each practice area had completed a general dietetic internship. For the administrative dietitians, the second most frequent area of emphasis was management (15 per cent). The second most frequent area of internship emphasis for both the clinical (12.6 per cent) and generalist (13 per cent) dietitians was clinical.

Registration status and route to registration by present professional practice area also are shown in Table 4. A large majority (87.5 per cent) of the dietitians were registered. The percentage is larger than that for the A.D.A. membership (59), of which 76 per cent were registered. National data, however, include retired and inactive categories of membership. Over 50 per cent of the study group became registered by taking the registration examination; however, the distribution was related to present practice area (χ^2 , $P \leq .05$). Only 34 per cent of the administrative dietitians became registered by taking the examination; whereas 63.9 per cent of the clinical and 56.4 per cent of the generalist dietitians gained registration via the examination route. Since a larger number of administrative dietitians had birth dates between 1932 and 1943, that group of dietitians would have become A.D.A. members before 1969 when the first registration examination was given.

Table 5 shows the years since internship, A.D.A. membership, and registration for the dietitians by present practice area. Mean years since completing their internship and since becoming A.D.A. members were significantly higher for the administrative dietitians. The clinical dietitians' mean years since completing internships were significantly lower than both the administrative and general groups. These results are related to the age distribution of the dietitians; the

Table 5: Years since internship, A.D.A. membership, and registration

	present practice area								
	total group		adminis- trative		clinical		general		F ratio ¹
	N	mean s.d.	N	mean s.d.	N	mean s.d.	N	mean s.d.	
years since com- pleted intern- ship	248	12.15 ±5.51	59	14.64 ±5.98	113	10.71 ±4.82	76	12.34 ±5.43	10.75*
years since becoming A.D.A. member	367	9.48 ±6.15	85	11.99 ±7.04	166	8.30 ^a ±5.22	166	9.32 ^a ±6.19	10.71*
years since becoming registered	312	7.49 ±2.95	71	8.98 ±2.86	141	7.16 ±2.99	100	7.51 ±2.92	2.40

¹One way analysis of variance with LSD procedure for difference between means. Means in a row sharing a common superscript (a) are not significantly different at the .05 level.

* $P \leq .05$

administrative dietitians tended to be older and the clinical dietitians tended to be younger than the other practice groups. There was no significant difference in the years since becoming registered for any of the practice areas; however, the administrative dietitians tended to hold registration somewhat longer.

Data on Professional Practice

General Information

General data on professional practice by present practice area are shown in Table 6. The administrative dietitians' total years of employment since becoming members of A.D.A. were significantly longer than the

Table 6: Data on professional practice

	present practice area								
	total group (N=367)		adminis- trative (N=85)		clinical (N=165)		general (N=117)		F ratio ¹
	N	mean s.d.	N	mean s.d.	N	mean s.d.	N	mean s.d.	
total years of employment	367	8.08 ±5.38	85	11.47 ±6.42	165	7.55 ^a ±4.29	117	7.55 ^a ±4.29	16.20*
number of employers	346	2.86 ±2.14	82	2.88 ±2.27	150	2.63 ±1.87	114	3.14 ±2.36	1.83
number of jobs	346	3.72 ±2.50	80	4.48 ^a ±2.98	151	3.21 ±2.08	115	3.87 ^a ±2.51	7.32*
years of unemployment	77	4.10 ±4.26	21	2.90 ±2.74	23	4.88 ±4.90	23	4.04 ±4.32	1.39
number of positions outside of dietetics	55	1.36 ± .62	13	1.46 ± .88	17	1.35 ± .49	25	1.32 ± .56	.22
years employed outside of dietetics	44	2.55 ±2.33	10	3.80 ±3.91	13	2.62 ±1.85	21	1.90 ±1.22	2.40

¹One way analysis of variance with LSD procedure for difference between means. Means in a row sharing a common superscript (a) are not significantly different at the .05 level.

* $P \leq .05$

other practice areas; this finding was expected since these dietitians as a group were older. The mean number of employers for the total group were slightly less than three, with no significant difference between groups. The number of jobs held since becoming an A.D.A. member was significantly lower for the clinical dietitians than for administrative and generalist dietitians.

Only seventy-seven dietitians (21 per cent) indicated years of unemployment since becoming an A.D.A. member. The mean years of unemployment for this group was 4.10 years. There was no significant difference in years of unemployment between the three practice areas, although the administrative group had the lowest mean number of years of unemployment.

Fifty-five dietitians indicated that they held positions outside of dietetics since becoming A.D.A. members. The mean number of positions was 1.36 for these dietitians. There was no significant difference between the three practice areas.

Career Fidelity and Stability

Data in Tables 7 and 8 present two way analysis of variance for effects of age and present practice area on career fidelity and stable:trial ratio. Career fidelity was defined as the ratio of the total number of years employed in dietetic practice in relation to the total number of years in the profession (i.e., number of years since becoming an A.D.A. member). A high career fidelity ratio translates into consistent employment in the profession throughout a person's professional life.

The stable:trial ratio indicates the amount of time the dietitians spent in stable jobs in relation to the time spent in trial jobs.

Table 7: Two way analysis of variance for effects of age and present practice area on career fidelity¹ and stable:trial ratios²

source of variation	df	career fidelity		stable:trial ratio	
		F ratio	P	F ratio	P
age	2	11.54	.001	1.87	.16
present practice area	2	3.98	.02	.46	.63
interaction	4	.98	.42	1.43	.22
residual	354				

¹ Career fidelity = $\frac{\text{total no. yrs. employed in dietetic practice}}{\text{total no. yrs. in profession}}$

² Stable:trial ratio = $\frac{\text{total no. yrs. in stable jobs}}{\text{total no. yrs. in trial jobs}}$

stable = jobs held $\geq$ 3 years
 trial = jobs held $<$ 3 years

Table 8: Least squares means for career fidelity and stable:trial ratios by age groups and present professional practice area¹

		least squares means ¹	
	N	career fidelity ²	stable:trial ratio ³
age:			
30-35 yrs.	210	.94	3.44
36-41 yrs.	95	.93	2.36
42-47 yrs.	63	.82	6.74
present practice area:			
administrative	84	.93	5.10
clinical	166	.87	3.07
general	118	.88	4.37

¹ Results of two-way analysis of variance of effects of age and present practice area. Refer to Table 7 for statistical detail.

² Career fidelity = $\frac{\text{total no. yrs. employed in dietetic practice}}{\text{total no. yrs. in profession}}$

³ Stable:trial ratio = $\frac{\text{total no. yrs. in stable jobs}}{\text{total no. yrs. in trial jobs}}$

stable = jobs held $\geq$ 3 years

trial = jobs held $<$ 3 years

Stable jobs are those jobs held for three or more years, and trial jobs are those held for less than three years. The stable:trial ratio was adapted from the Form and Miller study (12). A high stable:trial ratio means that more years were spent in stable than in trial jobs.

Table 7 shows that age and present practice area had a significant effect on the career fidelity ratio; however there was not a significant interaction effect between the variables on career fidelity. There was no significant effects of age or present practice area on the stable:trial ratio.

The data in Table 8 indicate that the youngest age group had the highest career fidelity and the oldest age group, the lowest when means were adjusted for the effects of practice area. Among the three practice groups, the administrative group had the highest career fidelity score and the clinical group, the lowest score when means were adjusted for effects of age.

The high career fidelity ratios can be related to the data in Table 6 which show that only about 20 per cent of the total group of dietitians had been unemployed. Table 8 shows that the older age group tended to have a higher stable:trial ratio than the two younger groups. The thirty-six to forty-one years age group had the lowest stable:trial ratio. These means were adjusted for the effects of practice area. Of the three practice groups, the administrative dietitians tended to have the highest stable:trial ratio and the clinical dietitians, the lowest when the means were adjusted for effects of age.

Experience in Various Areas of Professional Practice

Years of experience in various types of professional practice are shown in Table 9 by present practice area. About 66 per cent of the total group (N = 241) reported experience in general dietetics, and 60 per cent (N = 222) reported experience in clinical dietetics. There was no significant difference in the number of years those currently employed in administrative, clinical, or generalist positions had spent in general or clinical dietetics; whereas, those currently in clinical dietetics had spent significantly less years in foodservice management than was true for the administrative or generalist dietitians. Only about 35 per cent (N = 128) of the total group indicated years of experience in foodservice management. Less than a fourth of the total

Table 9: Years of experience in various types of professional practice by present professional practice area

types of professional practice	present practice area								F ratio ¹
	total group (N=367)		adminis- trative (N=85)		clinical (N=165)		general (N=117)		
	N	mean years s.d.	N	mean years s.d.	N	mean years s.d.	N	mean years s.d.	
general dietetics	241	6.63 ±5.86	52	7.67 ±5.75	95	6.19 ±7.02	94	6.51 ±4.45	1.11
clinical dietetics	222	5.42 ±4.24	41	4.76 ±3.63	126	6.01 ±4.61	55	4.56 ±3.59	2.88
foodservice management	128	5.64 ±4.38	60	6.50 ^a ±4.57	19	3.11 ±2.28	49	5.57 ^a ±4.44	4.59*
community nutrition	36	2.75 ±2.23	8	3.25 ±2.60	19	2.11 ±1.37	9	3.67 ±3.08	1.83
teaching	61	3.46 ±3.28	9	3.44 ±3.81	19	4.16 ±3.98	33	3.06 ±2.68	.67
health care facility consultant	76	3.22 ±2.52	12	2.42 ±1.16	29	3.14 ±2.74	35	3.57 ±2.65	.97
private practice	21	2.81 ±2.36	2	2.00 ±1.41	10	2.50 ±2.01	9	3.33 ±2.92	.40
other	32	3.44 ±2.98	3	1.67 ± .58	17	3.41 ±3.16	12	3.92 ±3.06	.67

¹One way analysis of variance with LSD procedure for difference between means. Means in a row sharing a common superscript (a) are not significantly different at the .05 level.

* $P \leq .05$

group indicated experience in the other types of professional practice. There was no significant differences among the three practice areas.

Table 10 shows that fewer of those dietitians whose present practice area was in clinical dietetics had experience in the other areas of practice than was the pattern for administrative or generalist dietitians. Sixty-three per cent of the administrative dietitians had experience in clinical dietetics, while only 8 per cent of the clinical dietitians had experience in administrative dietetic practice. A slightly higher percentage of the administrators (42.9 per cent) had experience in general dietetics than did the clinical dietitians (37.3 per cent). Also, a higher percentage (63.1 per cent) of the administrative than the generalist (42.4 per cent) dietitians had experience in clinical dietetics. A higher percentage of generalists (25.4 per cent) had experience in administration than did clinicians (8.4 per cent). A majority of the total group had experience in both clinical (73.1 per cent) and in general (58.7 per cent) dietetics.

In the lower portion of Table 10, the professional practice of the dietitians studied was examined in more detail. The percentage of practice in administrative, clinical, and general dietetics was computed for those reporting practice in each of these areas.

The clinical dietitians had a higher mean percentage (82.2 per cent) of total professional practice in their present practice area than had the administrative or generalist dietitians. The administrative dietitians had the lowest mean percentage of total professional practice in their present practice area. All three practice groups had the most practice in their present practice area, which would indicate that those dietitians had tended to specialize within an area of the profession.

Table 10: Analysis of professional practice by present practice area

present practice area	N	% with practice in:		
		administration	clinical	general dietetics
administrative	84	100.0	63.1	42.9
clinical	166	8.4	100.0	37.3
general	118	25.4	42.4	100.0
total group	368	34.8	73.1	58.7

present practice area	mean % of total professional practice in each area ¹		
	administration	clinical	general dietetics
administrative	66.4	33.3	28.4
clinical	20.1	82.2	38.7
general	29.9	34.6	76.3
total group	52.8	63.7	57.5

¹ Data reported only for those reporting practice in various areas; those without practice in an area were excluded from analysis. Refer to top portion of table for % of dietitians with practice in each area by present practice area.

The administrative and generalist dietitians spent the second highest percentage of their practice time in clinical dietetics. The clinical dietitians spent the least amount of their time in administration. For the total group, the highest percentage of total practice was in clinical dietetics (63.7 per cent) and the lowest in administration (52.8 per cent).

Information on Present Employment

Table 11 includes data on present employment status, position title, and place of employment by present professional practice area. Although the sample included dietitians who were employed half time or more, 92.7 per cent were employed full time; 2.5 per cent indicated that they were not currently employed. Those respondents apparently became unemployed since the membership information was collected because names were requested from A.D.A. for employed dietitians. Only a small percentage (1.4 per cent) were not employed and were not seeking employment. There was no significant difference in employment status for the three practice areas. The clinical dietitians (7.8 per cent) tended to be employed part time more often than the administrative (1.2 per cent) and generalist (3.4 per cent) dietitians.

Present position title for 21.2 per cent of the total group of dietitians was director. Almost 18 per cent had titles of assistant director, head administrative, or administrative staff dietitian. A.D.A. membership information (59) showed that 18 per cent of the members indicating position were directors, and 15 per cent were associate or assistant directors and administrative dietitians. About 44 per cent of the survey group in this study were head clinical or clinical dietitians, while only 22 per cent of the A.D.A. membership (59) were clinical dietitians. The title of generalist was reported by 8.9 per cent of the total group. Less than 3 per cent of the group were research or teaching dietitians. Two per cent of the A.D.A. membership indicated that they were in research and 4 per cent were teaching dietitians.

The dietitians were classified as presently practicing administrative, clinical, or general dietetics according to information they

Table 11: Current employment status by present professional practice area

	present practice area								χ^2
	total group		adminis- trative		clinical		general		
	N	%	N	%	N	%	N	%	
present employment status									8.56
full time	341	92.7	80	94.1	150	90.4	111	94.9	
part time	18	4.9	1	1.2	13	7.8	4	3.4	
not employed, seeking employ- ment	4	1.1	2	2.4	1	0.6	1	0.9	
not employed, <u>not seeking</u> employment	5	1.4	2	2.4	2	1.2	1	0.9	
present position title									349.80*
director	76	21.2	38	46.3	4	2.5	34	29.8	
assistant director	30	8.4	13	15.9	4	2.5	13	11.4	
head administra- tive	13	3.6	8	9.8	1	0.6	4	3.5	
administrative staff	21	5.8	18	22.0	1	0.6	2	1.8	
head clinical	39	10.9	2	2.4	29	17.8	8	7.0	
clinical	118	32.9	-	-	110	67.5	8	7.0	
generalist	32	8.9	-	-	-	-	32	28.1	
research	10	2.8	-	-	8	4.9	2	1.8	
internship									
director	3	0.8	-	-	-	-	3	2.6	
teaching	7	1.9	-	-	4	2.5	3	2.6	
community	2	0.6	1	1.2	-	-	1	0.9	
private practice	2	0.6	-	-	2	1.2	-	-	
consultant	3	0.8	-	-	-	-	3	2.6	
other dietetic position	3	0.8	2	2.4	-	-	1	0.9	
present place of employment									15.00*
hospital	275	76.6	70	86.4	118	72.4	87	75.7	
university medical center	53	14.8	7	8.6	33	20.2	13	11.3	
other	15	4.2	3	3.7	7	4.3	5	4.3	
two places	16	4.5	1	1.2	5	3.1	10	8.7	

* $P \leq .05$

reported on job responsibilities on the second section of the questionnaire, the job history. A majority of the administrative dietitians (62.2 per cent) were directors or assistant directors. Twenty-two per cent of the administrative dietitians had titles as administrative staff dietitians. Over 85 per cent of the clinical dietitians had titles of either head clinical or clinical dietitian. Almost 5 per cent of the clinical dietitians were research dietitians. Present positions title for 29.8 per cent of the generalist dietitians was director. Generalist was the position title for 28.1 per cent of the generalist dietitians.

The population requested from the A.D.A. was to be limited to dietitians employed at hospitals or university medical centers. A majority (76.6 per cent) of the total group were employed at community hospitals. University medical center hospitals employed 14.8 per cent. A.D.A. membership information indicated that 46 per cent of the members were employed at hospitals, and 5 per cent at university medical centers (59). Slightly more than 4 per cent of the group were employed at facilities other than a hospital or university medical center. Those dietitians probably had changed place of employment since the A.D.A. membership information was collected.

A higher percentage of administrative (86.4) than clinical (72.4 per cent) or generalist (75.7 per cent) dietitians were employed at community hospitals, whereas a higher percentage of clinical dietitians were employed at university medical centers. Almost 9 per cent of the generalist dietitians were employed at two places. These were usually dietitians who were working as consultants to other health care facilities.

Table 12 shows that a majority (53.8 per cent) of the administrative dietitians indicated that their present position was exactly the job they wanted, whereas a majority (52.1 per cent) of the clinicians indicated that their present position was the best job available and 39 per cent indicated that it was exactly the job they wanted. Only a few stated that their present position was the only job available at the time. A higher percentage of the generalist (13.0 per cent) than the administrative (3.8 per cent) or clinical (8.6 per cent) dietitians indicated that their present position was the only job available.

Table 12: Initial reaction to present position

present position was:	total group		present practice area					
			adminis- trative		clinical		general	
	N	%	N	%	N	%	N	%
exactly the job I wanted	161	45.2	42	53.8	64	39.3	55	47.8
best job available	163	45.8	33	42.3	85	52.1	45	39.1
only job available	32	9.0	3	3.8	14	8.6	15	13.0

$$\chi^2 = 9.92, P \leq .05$$

Career Interests and Aspirations

Prediction of Employment

Data in Table 13 shows the dietitians' anticipated employment for the next ten years. For this analysis, employment data were examined by age groups: 30 to 35 years, 36 to 41, and 42 to 47. There was not a relationship between age and predicted employment for the next five and

Table 13: Prediction of employment for next five and ten years by age groups

predicted employment	age group							
	total group		30-35		36-41		42-47	
	N	%	N	%	N	%	N	%
in five years:								
steadily employed full time	224	74.2	123	68.7	58	80.6	43	84.3
steadily employed part time	25	8.3	17	9.5	7	9.7	1	2.0
out of work force other than retirement	8	2.6	5	2.8	2	2.8	1	2.0
uncertain about plans	16	5.3	12	6.7	1	1.4	3	5.9
combination full time and part time	29	9.6	22	12.3	4	5.6	3	5.9
in ten years:								
steadily employed full time	209	60.4	107	54.0	64	71.9	38	64.4
steadily employed part time	30	8.7	18	9.1	5	5.6	7	11.9
out of work force other than retirement	2	0.6	2	1.0	-	-	-	-
uncertain about plans	40	11.6	26	13.1	7	7.9	7	11.9
combination full time and part time	65	18.8	45	22.7	13	14.6	7	11.9

5 yrs.: $\chi^2_2 = 10.98$ n.s.
 10 yrs.: $\chi^2 = 12.07$ n.s.

ten years. A majority of the group predicted steady full time employment in both five and ten years, 74.2 per cent, and 60.4 per cent, respectively. Almost 12 per cent of the dietitians were uncertain about their plans for employment in the next ten years. Some combination of full time and part time employment in the next ten years was predicted by 18.8 per cent.

A lower percentage of the thirty to thirty-five years age group (68.7 per cent) predicted steady full time employment for the next five years than did the two older age groups (80.6 and 84.3 per cent). The lower percentage for this youngest age group might be explained by the fact that a major determinant of a woman seeking employment relates to the presence of children, particularly children of preschool age. Data from the Department of Labor (31) showed a particularly large difference in labor force participation rates of single and married women in the twenty-five to thirty-four year old age group, the period when women are most likely to have young children. According to reports of the Department of Labor Women's Bureau (31), the highest rate of labor force participation for women family heads was among those forty-five to fifty-four years of age, when most of their children would be old enough to allow the mothers more freedom to work outside the home.

Although a significant relationship between age and predicted employment was not shown by the chi square analysis, a smaller percentage (54.0 per cent) of the thirty to thirty-five years age group tended to predict they would be steadily employed full time in the next ten years than did the thirty-six to forty-one (71.9 per cent) and the forty-two to forty-seven (64.4 per cent) years age groups. A higher

percentage of the youngest age group tended to predict some combination of full time and part time employment than did the two other age groups.

Plans for Area of Employment in Various Dietetic Practice Areas

Table 14 shows plans for area of employment for the next five and ten years. The dietitians indicated whether they planned to stay in their present dietetic practice area, would like to work in another dietetic practice area, or would like to work in an area other than dietetics. The plans for area of employment were analyzed by age and present practice area. A majority of the dietitians in all three age groups and practice areas planned to stay in their present practice area for the next five years. There was not a relationship between practice area and plans for the next five years for any of the age groups. None of the dietitians in the thirty-six to forty-one years age group indicated that they would like to work in an area other than dietetics.

There was a significant relationship between plans for the next ten years and present practice area for the thirty to thirty-five and thirty-six to forty-one years age groups. For the next ten years, a majority of the administrative dietitians (73.9 per cent) ages thirty-six to forty-one and the generalist (52.4 per cent) dietitians in the forty-two to forty-seven years group planned to stay in their present practice area. For the next ten years, 40 per cent of the administrative dietitians ages thirty to thirty-five and 36.4 per cent of the administrative dietitians ages forty-two to forty-seven indicated that they would like to work in an area other than dietetics. Higher percentages of the dietitians in all age and practice groups planned to stay in their present practice area for the next five years than was

true for the next ten years. For the next ten years, the higher percentages of all groups would like to work in an area other than dietetics.

Interest in Various Dietetic Positions

Interest in various dietetic positions also was studied by age groups and present practice area (Table 15). The dietitians expressed their degree of interest in the various dietetic positions by indicating whether they were definitely interested, somewhat interested, or not interested.

Thirty to Thirty-five Years Age Group. In the thirty to thirty-five years age group, there was a relationship between practice areas and degree of interest in a position as director, head administrative, and administrative staff dietitian. A majority (64.7 per cent) of the administrative dietitians in that age group were definitely interested in a position as director of dietetics; whereas, only 14.2 per cent of the clinical dietitians indicated definite interest. Fifty per cent of the administrative and 43.5 per cent of the generalist dietitians indicated definite interest in a head administrative position. Only 14.2 per cent of the clinical dietitians were definitely interested in such a position. Over half of the administrative (58.8 per cent) and generalist (51.6 per cent) dietitians responded that they were definitely or somewhat interested in an administrative staff position; 31 per cent of the clinical dietitians expressed such interest.

For the thirty to thirty-five age group a relationship also was found between practice area and degree of interest in a position as head clinical and clinical staff dietitian. A majority of the clinical

Table 15: Interest in various dietetic positions

position	degree of interest ¹	ages 30-35				ages 36-41				ages 42-47			
		adminis- trative (N=34)	clin- ical (N=113)	general (N=62)	χ^2	adminis- trative (N=25)	clin- ical (N=36)	general (N=34)	χ^2	adminis- trative (N=24)	clin- ical (N=16)	general (N=22)	χ^2
		%	%	%		%	%	%		%	%	%	
director of dietetics	definite somewhat	64.7 20.6	14.2 31.0	46.8 25.8	41.99*	68.0 12.0	11.1 27.8	55.9 20.6	24.79*	66.7 20.8	18.8 18.8	45.5 22.7	12.24*
head administra- tive dietitian	definite somewhat	50.0 29.4	14.2 15.0	43.5 29.0	45.35*	56.0 28.0	5.6 27.8	26.5 29.4	22.67*	37.5 25.0	- 37.5	18.2 27.3	8.46
head clinical dietitian	definite somewhat	14.7 26.5	54.0 31.0	43.5 32.3	29.48*	8.0 28.0	55.6 36.1	35.3 29.4	23.84*	- 29.2	31.3 43.8	27.3 31.8	12.24*
administrative staff dietitian	definite somewhat	20.6 38.2	7.1 23.9	21.0 30.6	14.40*	24.0 40.0	2.8 30.6	11.8 32.4	8.71	25.0 16.7	12.5 18.8	9.1 13.6	2.74
clinical staff dietitian	definite somewhat	5.9 23.5	41.6 33.6	29.0 37.1	27.63*	4.0 28.0	47.2 27.8	14.7 32.4	19.90*	- 25.0	43.8 25.0	4.5 27.3	19.38*
generalist	definite somewhat	20.6 29.4	18.6 59.8	37.1 43.5	14.71*	20.0 44.0	16.7 47.2	47.1 23.5	9.74*	20.8 33.3	31.3 18.8	36.4 36.4	3.50
research dietitian	definite somewhat	5.9 32.4	27.4 29.2	16.1 27.4	9.37	- 24.0	30.6 27.8	2.9 32.4	18.45*	- 4.2	12.5 12.5	13.6 13.6	5.30
internship director	definite somewhat	35.3 20.6	15.0 23.9	21.0 14.5	8.74	8.0 24.0	13.9 16.7	17.6 14.7	1.74	12.5 8.3	- 6.3	22.7 18.2	6.71
college or uni- versity faculty	definite somewhat	29.4 20.6	19.5 31.9	21.0 29.0	2.37	4.0 40.0	19.4 25.0	20.6 32.4	4.38	4.2 29.2	6.3 18.8	36.4 22.7	11.27
private prac- tice nutrition counseling	definite somewhat	17.6 44.1	41.6 37.2	40.3 40.3	8.43	16.0 32.0	38.9 44.4	32.4 32.4	9.26	8.3 41.7	43.8 12.5	27.3 31.8	8.01
health care facility con- sultant	definite somewhat	20.6 35.3	23.6 35.4	29.0 43.5	3.89	24.0 48.0	13.9 44.4	20.6 35.3	2.57	20.8 33.3	18.8 37.5	22.7 36.4	0.19
public health nutritionist	definite somewhat	5.9 29.4	26.5 33.6	19.4 40.3	10.24*	8.0 48.0	38.9 25.0	32.4 32.4	7.92	4.2 12.5	- 37.5	27.3 31.8	13.95*
coordinated program director	definite somewhat	26.5 17.6	9.7 28.3	19.4 16.1	9.08	4.0 36.0	11.1 22.2	8.8 26.5	2.04	4.2 20.8	6.3 12.5	13.6 31.8	4.08

¹ Responses: 1, definite interest; 2, somewhat interested; 3, no interest. No interest responses excluded from table.

* $P \leq .05$

dietitians (54.0 per cent) in that age group indicated definite interest in a head clinical position. Less than half of the generalists (43.5 per cent) responded with definite interest, whereas only 14.7 per cent of the administrative dietitians were definitely interested. Of the clinical dietitians, 75.2 per cent were either definitely or somewhat interested in a clinical staff position; 66.1 per cent of the generalists showed such interest. About 30 per cent of the administrative dietitians (29.4 per cent) indicated interest in a clinical staff position.

A relationship also was found between practice area and interest in a position as a generalist dietitian and a position as public health nutritionist for this age group. About half of the administrative dietitians indicated that they were either definitely interested (20.6 per cent) or somewhat interested (29.4 per cent) in a generalist position; whereas, a majority of both the clinical (78.4 per cent) and generalist (80.6 per cent) dietitians indicated that they were definitely or somewhat interested in such a position. About 35 per cent of the administrative dietitians indicated they were definitely or somewhat interested in employment in public health nutrition, while a majority of the clinical (60.1 per cent) and generalist (59.7 per cent) dietitians indicated such interest.

There was no relationship between practice area and interest in a position as research dietitian, in any of the teaching positions (internship director, college or university faculty, and coordinated program director), or in a position in private practice nutrition counseling or health care consultation. About 38 to 57 per cent of the dietitians indicated interest in a research position, 36 to 56 per cent in the

teaching positions, and 54 to 81 per cent in a position in private practice nutrition counseling or health care consultation.

Thirty-six to Forty-one Years Age Group. In the thirty-six to forty-one years age group, there was a relationship between practice area and degree of interest in a position as director and head administrative dietitian. A majority of the administrative (68.0 per cent) and generalist (55.9 per cent) dietitians were definitely interested in a position as director of dietetics; whereas, only 11.1 per cent of the clinical dietitians indicated strong interest. A majority (56.0 per cent) of the administrative dietitians indicated definite interest in a head administrative position; 26.5 per cent of the generalist showed such interest. Less than 6 per cent of the clinical dietitians (5.6 per cent) indicated interest in a head administrative position.

A relationship was found between practice area and degree of interest in a position as a head clinical and clinical staff dietitian for the thirty-six to forty-one years age group. A majority (55.6 per cent) of the clinical dietitians indicated definite interest; only 8 per cent of the administrative dietitians indicated definite interest; whereas 35.3 per cent of the generalist showed such interest. Almost half of the clinical dietitians (47.2 per cent) indicated definite interest in a clinical staff position. Only 4.0 per cent of the administrative and 14.7 per cent of the generalist indicated strong interest in a clinical staff position.

A relationship also was found between practice area and degree of interest in a position as a generalist dietitian and a position as research dietitian. Almost half of the generalist dietitians (47.1 per cent) indicated definite interest in a generalist position; while 20 per

cent of the administrative and 16.7 per cent of the clinical dietitians indicated such interest. None of the administrative and only 2.9 per cent of the generalist dietitians indicated definite interest in a research position. Slightly over 30 per cent of the clinical dietitians were definitely interested.

There was no relationship between practice area and degree of interest in a position as administrative staff dietitian, in any of the teaching positions (internship director, college or university faculty, and coordinated program director), or in positions in private practice nutrition counseling, in health care consultation, or in public health nutrition. Less than 12 per cent of the total group indicated definite interest in an administrative staff position; 13.7 per cent indicated definite interest in employment as an internship director, and 15.8 per cent in a position as a college or university faculty member. Only 8.4 per cent indicated definite interest in a position as coordinated program director. About 31 per cent of the dietitians indicated definite interest in private practice nutrition counseling; 18.9 per cent in health care consultation; and 28.4 per cent in employment in public health nutrition.

Forty-two to Forty-seven Years Age Group. In the forty-two to forty-seven years age group, there was a relationship between practice area and degree of interest in a position as director of dietetics, head clinical dietitian, and clinical staff dietitian. A majority (66.7 per cent) of the administrative dietitians in that age group were definitely interested in a position as director of dietetics; whereas, 18.8 per cent of the clinical dietitians indicated definite interest. None of the administrative dietitians indicated definite interest in a head

clinical position; 31.3 per cent of the clinical and 27.3 per cent of the generalist indicated strong interest. None of the administrative dietitians and only 4.5 per cent of the generalists indicated definite interest in a position as a clinical staff dietitian; whereas, 43.8 per cent of the clinical dietitians indicated such interest.

A relationship also was found between practice area and degree of interest in a position as public health nutritionist for the forty-two to forty-seven years age group. None of the clinical and only 4.2 per cent of the administrative dietitians indicated definite interest; whereas 27.3 per cent of the generalists were interested.

There was no relationship between practice area and degree of interest in a position as head administrative, administrative staff, generalist, or research dietitian. Also no relationship was found between practice area and degree of interest in any of the teaching positions (internship director, college or university faculty, and coordinated program director), or in a position in private practice nutrition counseling or health care consultation.

Ultimate Professional Objective

Thirty to Thirty-five Years Age Group. The dietitians ultimate professional objective in terms of a dietetic position was studied by age groups and present practice areas (Table 16). For the thirty to thirty-five years age group there was a relationship between present practice area and ultimate professional objective. Higher percentages of administrative and generalist dietitians indicated that their present position was congruent with their ultimate objective than was found among clinical dietitians.

Table 16: Ultimate professional objective in dietetics

ultimate objective	ages 30-35				ages 36-41				ages 42-47			
	adminis- trative (N=34)	clin- ical (N=110)	general (N=59)	χ^2	adminis- trative (N=24)	clin- ical (N=36)	general (N=34)	χ^2	adminis- trative (N=23)	clin- ical (N=16)	general (N=21)	χ^2
	%	%	%		%	%	%		%	%	%	
				46.14*				36.42*				35.60*
present position con- gruent with objective	20.6	12.7	20.3		37.5	19.4	41.2		47.8	18.8	47.6	
director of dietetics	26.5	6.4	25.4		25.0	8.3	11.8		13.0	-	9.5	
head or staff adminis- trative dietitian	-	2.7	3.4		12.5	-	5.9		13.0	-	-	
head or staff clinical dietitian	5.9	28.2	5.1		-	30.6	-		-	25.0	-	
generalist	2.9	5.5	5.1		8.3	-	11.8		-	12.5	-	
teaching (internship director or college faculty)	11.8	12.7	13.6		8.3	8.3	8.8		-	6.3	19.0	
private practice or health care facility consultant	5.9	18.2	15.3		-	5.6	2.9		4.3	6.3	9.5	
other	8.8	11.8	5.1		4.2	19.4	11.8		8.7	25.0	14.3	
would like to change professions	17.6	1.8	6.8		4.2	8.3	5.9		13.0	6.3	-	

* $P \leq .05$

Over 25 per cent of both the administrative and generalist dietitians indicated that their ultimate objective was to be a director of dietetics. Only 6.4 per cent of the clinical dietitians had such a goal. None of the administrative dietitians and less than 4 per cent of the clinical and generalist dietitians in the thirty to thirty-five years age group indicated that their ultimate objective was to be head or staff administrative dietitian. Only 5.9 per cent of the administrative and 5.1 per cent of the generalist dietitians indicated that their ultimate objective was to be the head or a staff clinical dietitian; however, 28.2 per cent of the clinical dietitians indicated such an objective. Less than 6 per cent of each practice group indicated that their ultimate objective was to be a generalist.

Achieving positions in teaching (internship director or college faculty), was the ultimate objective of 11.8 per cent of the administrative, 12.7 per cent of the clinical, and 13.6 per cent of the generalist dietitians. About 18 per cent of the clinical dietitians and 15.3 per cent of the generalists indicated that private practice or health care consulting were their ultimate objective, while only 5.9 per cent of the administrative dietitians had such an objective.

Objectives in dietetics other than those listed were indicated by 8.8 per cent of the administrative, 11.8 per cent of the clinical, and 5.1 per cent of the generalist dietitians. A higher percentage of the administrative (17.6 per cent) than clinical (1.8 per cent) or generalist dietitians (6.8 per cent) indicated that they would like to change professions.

Thirty-six to Forty-one Years Age Group. There was also a relationship between present practice area and ultimate professional objective

for the thirty-six to forty-one years age group. Higher percentages of administrative (37.5 per cent) and generalist dietitians (41.2 per cent) indicated that their present position was congruent with their ultimate objective. Twenty-five per cent of the administrative, only 8.3 per cent of the clinical, and 11.8 per cent of the generalist dietitians indicated that their ultimate objective was to be a director of dietetics. Almost 13 per cent of the administrative (12.5 per cent), none of the clinical, and only 5.9 per cent of the generalist dietitians indicated that their ultimate objective was to be a head or a staff administrative dietitian. None of the administrative or generalist dietitians indicated that their ultimate objective was head or staff clinical dietitian, while this was the objective of 30.6 per cent of the clinical dietitians.

Less than 10 per cent of each practice area indicated that a teaching position was their ultimate objective. None of the administrative and only a few clinicians or generalists aspired to positions in private practice or health care facility consulting.

Forty-two to Forty-seven Years Age Group. There was also a relationship between present practice area and ultimate professional objective for the forty-two to forty-seven years age group. Much higher percentages of administrative and generalist dietitians indicated that their present position was congruent with their ultimate objective than was found among clinicians (47.8 and 47.6 compared to 18.8 per cent). None of the clinical dietitians indicated an ultimate objective as director of dietetics or head or staff administrative dietitian. None of the administrative or generalist dietitians indicated that their ultimate objective was to be a head or staff clinical or generalist

dietitian. Thirteen per cent of the administrative dietitians, only 6.3 per cent of the clinical, and none of the generalist dietitians in this age group indicated their professional objective was to change professions.

All Age Groups. For all three age groups, higher percentages of administrators and generalists indicated that their present position was congruent with their ultimate objective than was true for clinicians. Similar findings were shown in relation to a related question discussed previously; on that query, higher percentages of administrative and generalist dietitians planned to stay in their present dietetic practice area than was found among clinical dietitians.

For both the thirty to thirty-five and the forty-two to forty-seven years age groups, higher percentages of administrative than clinical or generalist dietitians indicated that they would like to change professions. These results also are similar to those shown in Table 14; according to those data, higher percentages of the administrative dietitians than generalist or clinical in the same two age groups indicated that in the next ten years they would like to work in an area other than dietetics.

Interest In and Factors Affecting Relocation

As shown in Table 17, there was no relationship between practice area and interest in relocating for a more attractive dietetic position. A majority (60.3 per cent) of the dietitians indicated they might be interested in the future. Only 16 per cent were interested in relocating now; whereas 23 per cent were definitely not interested.

Table 17: Interest in relocating for a more attractive position

interest	total group		present practice area					
			administrative		clinical		general	
	N	%	N	%	N	%	N	%
interested now	59	16.2	16	19.0	25	15.2	18	15.4
might be in future	220	60.3	48	57.1	102	62.2	70	59.8
definitely not	86	23.6	20	23.8	37	22.6	29	24.8

$$\chi^2 = 0.95 \text{ n.s.}$$

Factors affecting acceptance of a more attractive position in another geographic area were studied in relation to age and present practice area (Table 18). Only two factors were related to practice area in any of the three age groups. The factors indicated most often by the total group as those affecting acceptance of a more attractive position in another geographic area were the city or town where the position was located, part of the country, experience and position offered, and salary.

For the thirty to thirty-five years age group, there was a relationship between practice area and part of the country as a factor in accepting a position. Higher percentages of clinical (92.2 per cent) and generalist (89.3 per cent) dietitians indicated geographic area would be a factor than was found among administrative dietitians.

For the forty-two to forty-seven years age group there was a relationship between practice area and salary as a factor in accepting another position. All of the administrative and generalist dietitians

Table 18: Factors affecting acceptance of a more attractive position in another geographic area

factors	ages 30-35				ages 36-41				ages 42-47			
	adminis- trative (N=34)	clin- ical (N=110)	general (N=59)	χ^2	adminis- trative (N=24)	clin- ical (N=36)	general (N=34)	χ^2	adminis- trative (N=23)	clin- ical (N=16)	general (N=21)	χ^2
	%	%	%		%	%	%		%	%	%	
like present location not want to leave	79.4 ¹	71.0	80.0	1.99	75.0	76.5	78.8	0.12	73.7	93.3	75.0	2.41
city or town itself where position is located	88.2	95.2	86.0	4.42	86.4	91.4	100.0	4.39	88.9	85.7	88.2	0.08
whether position is in large or small city	67.4	77.5	67.9	2.89	63.6	77.1	79.4	1.94	77.8	66.7	82.4	1.12
part of the country	75.8	92.2	89.3	6.63*	95.2	94.1	88.2	1.18	94.1	85.7	100.0	2.68
spouse's job	69.7	66.7	70.2	0.25	75.0	58.3	64.7	1.76	50.0	64.3	76.5	2.64
family considerations	70.6	81.9	81.4	2.17	78.3	72.2	78.8	0.49	66.7	71.4	83.3	1.36
experience the position offers	91.2	97.0	93.0	2.30	100.0	97.1	88.2	4.43	83.3	57.3	88.9	5.09
salary	91.2	97.1	94.7	2.13	100.0	97.1	100.0	1.65	100.0	76.9	100.0	8.62*
like present position not want to change	66.7	60.8	68.0	0.87	65.2	79.4	67.7	1.71	63.2	80.0	82.4	2.08

¹% indicating definitely or somewhat a factor in accepting another position.

* $P \leq .05$

indicated salary would be a factor; while 76.9 per cent of the clinical dietitians agreed.

Professional Involvement

Dietitians' professional involvement was studied by assessing number of current memberships in professional organizations and by the extent of involvement as an officer or in committee positions in professional organizations. From a list of seven professional organizations, the respondents were asked to indicate whether or not they were a member. About 96 per cent indicated that they were members of The American Dietetic Association (A.D.A.). Membership in American Diabetes Association was reported by 18.4 per cent. Less than 12 per cent indicated membership in any of the other organizations listed. The Society for Nutrition Education, American Society for Hospital Foodservice Administrators, American Home Economics Association, American Public Health Association, Nutrition Today, National Kidney Foundation Council of Renal Nutrition, and American Society of Parenteral and Enteral Nutrition were other professional societies or associations in which some of the respondents indicated membership.

Less than 2 per cent of the dietitians indicated that they had held a national officer or committee position in A.D.A. in the last five years. About 7 per cent indicated that they had been an officer in a state dietetic association and 11.3 per cent indicated they had been an officer in a district dietetic association, while 19.3 per cent indicated that they had served on a committee.

Continuing Education

Continuing education of these mid career dietitians was studied from several perspectives: continuing education hours accumulated in the past three years, attendance at national and state dietetic association meetings in the last three years and district meetings in the last year, employer support for continuing education activities, amount of time per week the dietitians devoted to reading professional literature, topics of seminars and workshops attended during the preceding three years, and plans for graduate study. Accumulation of seventy-five continuing education hours in a five year period are required to maintain professional dietetic registration (5). Over 36 per cent of the dietitians indicated that they had accumulated seventy-five or more continuing education hours in the past three years; whereas, 31 per cent of the dietitians reported fewer than forty-five hours. About 20 per cent had accumulated forty-five to fifty-nine hours, and 13.2 per cent had accumulated sixty to seventy-four hours.

About 45 per cent of the dietitians indicated that they had not attended an A.D.A. annual meeting in the last three years; almost 34 per cent had attended one A.D.A. annual meeting during this time; 15 per cent had attended two meetings; and only 5.8 per cent, three meetings. Almost 31 per cent of the dietitians indicated no attendance at state dietetic association meetings for the last three years. Slightly less than 19 per cent indicated that they had attended one state meeting, 20.3 per cent attended two, and 18.7 per cent indicated that they had attended three state dietetic association meetings in the preceding three years. A few (11.4 per cent) indicated that they had attended more than four state dietetic association meetings.

Almost 29 per cent of the dietitians indicated that they had not attended district dietetic association meetings in the last year. About 37 per cent of the dietitians indicated attendance at one to three meetings, and 22.7 per cent indicated attendance at four to six. Seventeen per cent of the dietitians indicated attendance at more than six meetings in the last year.

Fifteen per cent of the dietitians, who reported financial support by their employer for continuing education programs indicated they received \$50 or less annually. Over 50 per cent indicated an annual contribution of more than \$200 and 15.5 per cent indicated support of over \$500. About 4 per cent indicated the amount contributed by their employer was \$1000 or more.

About 13 per cent of the dietitians indicated that they read professional literature about one hour per week; 28.5 per cent indicated approximately two hours per week. Over 41 per cent indicated that they devoted from three to five hours per week to professional reading; 6 per cent reported six to eight hours, and 12.3 per cent, ten hours or more.

Topics of Seminars and Workshops Attended

Continuing education of the dietitians in the study was analyzed in relation to types of seminars or workshops attended in the last three years. Respondents were asked to indicate the types of topics included in these seminars or workshops from a list of fifty-three topics: twenty-one management related, twenty-two nutrition and medical related, and ten general topics.

Management Related Seminar or Workshop Topics. In Table 19 percentages of respondents indicating attendance at seminars or workshops

Table 19: Seminars or workshops attended in the last three years including management related topics

topic ¹	total group (N=369)	present practice area			χ^2
		adminis- trative (N=85)	clinical (N=166)	general (N=118)	
	%	%	%	%	
cost control	24.5	43.5	9.6	31.6	39.72 ²
employee training	28.8	40.0	13.3	42.7	35.84
foodservice	16.3	32.9	4.8	20.5	34.81
purchasing	12.0	29.4	2.4	12.8	42.81
budgeting	17.9	28.2	5.4	28.2	32.17
sanitation	19.3	27.1	10.2	26.5	15.93
foodservice systems	17.9	25.9	5.4	29.9	32.72
financial reports	12.2	21.2	1.8	20.5	30.62
computer-assisted management	10.3	20.0	4.8	11.1	14.10
safety	14.4	18.8	6.6	22.2	15.92
food production	12.5	17.6	5.4	18.8	13.91
equipment and layout	6.8	12.9	3.0	7.7	8.97
inventory control	7.6	12.9	2.4	11.1	11.86
storage and security	6.5	12.9	1.2	9.4	15.04
food merchandising	6.5	12.9	1.8	8.5	16.06
job descriptions	9.5	12.9	4.2	14.5	13.41
work simplification	9.8	11.8	5.4	14.5	10.33
food specifications	6.5	11.8	2.4	8.5	9.22
scheduling	7.1	9.4	3.6	10.3	8.93 n.s.
judging quality food	4.6	5.9	2.4	6.8	6.82 n.s.
standardized recipes	3.3	4.7	1.2	5.1	7.45 n.s.

¹Topics listed in descending order by administrative group attendance.

²All χ^2 values, $P \leq .05$ except those indicated n.s.

including management related topics are listed. There was a relationship between practice area and attendance at seminars or workshops including management related topics. Administrative dietitians reported attendance at seminars or workshops including management topics more frequently than the other two groups; whereas the clinical dietitians reported attendance at such workshops least frequently.

Cost control was a topic of seminars or workshops attended by a higher percentage of administrative dietitians (43.5 per cent) than any other topic. Only 9.6 per cent of the clinical dietitians had attended seminars or workshops including this topic; whereas, 31.6 per cent of the generalists attended a seminar or workshop including discussion of cost control.

Employee training, foodservice, purchasing, budgeting, sanitation, and foodservice systems were topics included in seminars or workshops attended by at least 25 per cent of the administrative dietitians. About 13 per cent (13.3 per cent) of the clinical dietitians had attended continuing education sessions that included employee training; however, even smaller percentages had attended sessions including the other topics reported frequently by the administrators. According to reports from the generalists, the percentages attending sessions including these priority management topics ranged from 12.8 to 42.7 per cent.

Nutrition and Medical Related Seminar or Workshop Topics. Table 20 shows attendance in the last three years at seminars or workshops including nutrition and medical related topics. Again, there was a relationship between practice area and subject matter of seminars or workshops attended. For thirteen of the twenty-two nutrition and medical related topics, attendance was related to present practice area.

Table 20: Seminars or workshops attended in the last three years including nutrition and medical related topics

topic ¹	total group (N=369)	present practice area			χ^2
		adminis- trative (N=85)	clinical (N=166)	general (N=118)	
	%	%	%	%	
nutritional assessment	60.3	41.2	68.1	63.2	17.60 ²
diabetes	47.6	30.6	51.2	54.7	13.09
hyperalimentation	43.8	29.4	51.2	43.6	10.85
nutrition and drug interrelations	47.3	32.9	48.2	56.4	13.81
obesity	39.1	25.9	41.6	45.3	8.55
cancer	35.1	20.0	37.3	42.7	14.77
weight control	30.0	20.2	31.9	34.2	5.09 n.s.
infant nutrition	22.8	12.9	29.5	20.5	9.29
fiber controlled diet	19.6	9.5	25.9	17.9	9.79
pediatrics	18.2	12.9	23.5	14.5	5.76 n.s.
cholesterol controlled diet	19.3	10.7	23.5	19.7	5.85
pregnancy	17.7	7.1	23.5	17.1	10.48
geriatrics	20.4	14.1	21.7	23.1	2.75 n.s.
minerals	16.1	7.1	21.1	15.4	8.10
digestion and metabolism	19.0	16.5	21.1	17.9	0.91 n.s.
vitamins	15.8	7.1	20.5	15.4	7.65
cardiology	15.3	10.7	19.9	12.0	5.06 n.s.
food habits	17.7	16.5	19.3	16.2	0.54 n.s.
fat restricted diet	14.2	8.3	15.7	16.2	3.07 n.s.
vegetarian diets	13.9	6.0	14.5	18.8	6.83
lactation	10.1	4.7	11.4	12.0	3.52 n.s.
urology	7.6	5.9	6.0	11.1	2.99 n.s.

¹Topics listed in descending order by clinical group attendance.

²All χ^2 values, $P \leq .05$ except those indicated n.s.

Also of interest was the finding that frequency of attendance of the overall group was generally higher on the nutritional topics as compared to management topics. Vanderveen and Hubbard (63), however, found that dietitians expressed relatively higher need for continuing education on nutrition care topics than on managerial sciences or other topics studied.

About two-thirds of the clinical (68.1 per cent) and generalist (63.2 per cent) dietitians had attended workshops or seminars including nutritional assessment as a topic; whereas, 41.2 per cent of the administrative dietitians had attended such seminars in the last three years. A majority of both the clinical (51.2 per cent) and the generalist (54.7 per cent) dietitians had attended seminars including diabetes mellitus as a topic; while 30.6 per cent of the administrative dietitians had attended seminars or workshops on diabetes. Seminars or workshops including discussion of hyperalimentation were attended by 51.2 per cent of the clinical dietitians, 43.6 per cent of the generalists, and only 29.4 per cent of the administrators. A higher percentage of generalist than clinical or administrative dietitians attended seminars or workshops including discussion of nutrient-drug interrelationships or obesity.

Other nutrition or medical related topics reported frequently by clinical dietitians were: cancer, weight control, infant nutrition, and fiber controlled diets. In two instances (cancer and weight control), generalists attendance at workshops or seminars was more frequent than clinical dietitians; however, in all cases, the administrators had the least frequent attendance. Less than 15 per cent of the total group attended seminars or workshops including the topics of fat restricted

diets, vegetarian diets, lactation, or urology. The generalist dietitians had more frequent attendance at seminars or workshops including ten of the twenty-two nutrition and medical related topics than that reported by the clinicians.

General Dietetics Seminar or Workshop Topics. Table 21 shows attendance at seminars or workshops in the last three years including topics of general interest to members of the dietetic profession. There was a relationship between practice area and attendance at sessions including the topics of communication skills, quality assurance, personnel inservice education, and time management. In all instances, administrative dietitians had the most frequent attendance. Professional standards review was a topic frequently included in continuing education sessions attended by all groups in the study.

Continuing Education Emphasis Scores. Three emphasis scores were computed to study continuing education activities in more detail. The total number of management, nutrition and medical, and general topics included in workshops or seminars attended were determined and compared for the three practice areas (Table 22). The continuing education management emphasis mean scores of the administrative and generalist dietitians were significantly higher than that of the clinical dietitians; whereas, the clinicians and generalists scored significantly higher on the continuing education nutrition and medical emphasis score than did the administrators. The mean scores computed from attendance at sessions including topics of general interest were significantly higher for the administrative and generalist dietitians than for the clinical dietitians. The clinical dietitians tended to limit their

Table 21: Seminars or workshops attended in the last three years including general topics

topic ¹	present practice area				χ^2
	total group (N=369)	adminis- trative (N=85)	clinical (N=166)	general (N=118)	
	%	%	%	%	
communication skills	31.8	42.4	24.7	34.2	8.53 ²
professional stan- dards review	31.0	29.4	26.5	38.5	4.71 n.s.
quality assurance	22.6	30.6	15.1	27.4	10.02
personnel inservice education	20.1	28.2	13.3	23.9	9.42
time management	19.0	29.4	8.4	26.5	22.28
legislation	17.1	18.8	13.9	20.5	2.37 n.s.
food science	16.8	15.3	15.7	19.7	0.97 n.s.
other	13.6	11.8	13.3	15.4	0.58 n.s.
audiovisual aids	13.3	7.1	13.3	17.9	5.06 n.s.
private practice counseling techniques	8.4	4.7	7.2	12.8	4.76 n.s.

¹Topics listed in descending order by total group attendance.

²All χ^2 values, $P \leq .05$ except those indicated n.s.

Table 22: Continuing education emphasis scores¹ by present professional practice area

continuing education emphasis score	present practice area				F ratio ²
	total group (N=369)	adminis- trative (n=85)	clinical (N=166)	general (N=118)	
	mean s.d.	mean s.d.	mean s.d.	mean s.d.	
management	2.54 ±3.82	4.13 ^a ±4.05	0.98 ±2.32	3.58 ^a ±4.49	29.65*
nutrition and medical	5.49 ±4.83	3.49 ±4.29	6.27 ^a ±4.87	5.83 ^a ±4.79	10.15*
general	1.93 ±1.93	2.18 ^a ±1.92	1.51 ±1.65	2.35 ^a ±2.18	7.60*

¹ Management score = number of management topics included in workshops or seminars attended. (Maximum = 21)

Nutrition and medical score = number of nutrition and medical topics included in workshops or seminars attended. (Maximum = 22)

General score = number of general topics included in workshops or seminars attended. (Maximum 10)

² One way analysis of variance with LSD procedure for difference between means. Means in a row sharing a common superscript (a) are not significantly different at the .05 level.

* $P \leq .05$

attendance to seminars or workshops including nutrition or medical topics, rather than attending sessions including management related or general topics. The administrative dietitians reported attendance at seminars or workshops that included management topics most frequently, but these dietitians also reported attendance at sessions on nutrition, medical, and general topics fairly frequently.

Plans for Graduate Study

Current or future plans for graduate study was another facet of the analysis of the continuing education aspect of the study. Table 23 enumerates plans for graduate study of the dietitians in the study sample. About 45 per cent of the dietitians had no plans for further study; however, approximately one-third of those dietitians held advanced degrees. Almost 36 per cent of the dietitians were either working on a master's or had plans to start work on a master's degree. Almost 11 per cent were working on their first master's degree, 15.3 per cent planned to start a master's program in one to three years; 7.6 per cent planned to start in three to five years; and a few were working on, or planned

Table 23: Plans for graduate study of dietitians in mid career maintenance stage

plans for study	N	%
hold advanced degree, no plans for further study	55	15.0
no plans for graduate study	109	29.7
working on first master's degree	40	10.9
start work on master's degree in 1 to 3 years	56	15.3
start work on master's degree in 3 to 5 years	28	7.6
working on or plan to start second master's	7	1.9
working on a Ph.D.	5	1.4
start work on a Ph.D. within next 5 years	28	7.6
take graduate courses but not get master's	29	7.9
take courses beyond master's but not get Ph.D.	43	11.7

N = 367

to start a second master's degree. Almost 8 per cent of the dietitians planned to take graduate courses, but were not interested in seeking a master's degree. About 20 per cent of the dietitians had plans for graduate study beyond a master's degree or were already working on a Ph.D.

Areas of interest for graduate study by present professional practice area are shown in Table 24. Almost half of the administrative

Table 24: Area of interest for graduate study¹ by present professional practice area

emphasis of study	total group (N=332)	present practice area		
		administrative (N=77)	clinical (N=150)	general (N=105)
	%	%	%	%
food and nutrition	12.7	2.6	16.7	14.3
nutrition or biochemistry	9.0	2.6	16.7	2.9
public health	4.5	1.3	6.7	3.8
foodservice management	10.8	18.2	6.0	12.4
food technology	0.3	-	0.7	-
education	4.2	1.3	6.7	2.9
business administration	13.9	29.9	6.7	12.4
other	4.5	7.8	4.0	2.9
two areas	18.1	16.9	16.7	21.0
not applicable	22.0	19.5	19.3	27.6

¹Response to question: What area of graduate study are you interested in pursuing if advanced study was recently started or is planned in near future?

$$\chi^2 = 67.49, P \leq .05$$

dietitians indicated that their area of interest was foodservice management or business administration. Only 2.6 per cent of the administrative dietitians indicated food, nutrition, or biochemistry as areas of interest. Public health and education were areas of interest for only a few of the administrative dietitians. None of the administrators indicated interest in food technology. Almost 8 per cent of the administrators indicated other areas of interest; whereas, 16.9 per cent indicated interest in two of the areas of study.

Food, nutrition, or biochemistry were areas of interest for graduate study for 33.4 per cent of the clinical dietitians. About 7 per cent of the clinicians indicated public health as an area of interest and almost 13 per cent indicated foodservice management or business administration. Few of the clinicians were interested in food technology. About 7 per cent of the clinical dietitians indicated interest in education; 4 per cent in other areas of study; and 16.7 per cent in two of the areas of study.

Food and nutrition was the area of interest for graduate study for 14.3 per cent of the generalists; whereas almost 25 per cent were interested in foodservice management or business administration. Less than 4 per cent of the generalist indicated interest in any of the other areas of study, although 21 per cent of the generalists were interested in two of the areas of study.

SUMMARY AND CONCLUSIONS

Summary

The primary responsibility of a profession with which the public is most concerned is that of assuring the professional competence of its practitioners. Dietitians have the responsibility to evaluate their own educational needs and to initiate a plan for self-development.

Changing jobs may require a special emphasis on continuing education when the change is between two different specialty areas of dietetics. In 1969, Sanford (7) found that almost one-fourth of the dietitians who had graduated from internships in the years 1965 to 1967 had held three or more positions in the short time since graduation from their internship. The 1972 A.D.A. manpower study (8) showed that approximately two-thirds of the A.D.A. members had been employed in one position for five years or less. The data did not indicate whether the persons were new to the practice of dietetics, had recently changed positions, or were reentering the labor force.

If a dietitian moves from an administrative position to a clinical position, continuing education in the area of nutrition and diet therapy may be important. The number of years a dietitian is out of the work force also will have an impact on the dietitian's continuing education needs upon re-entry to the work force. The objective of this study was to identify implications for continuing education from a survey of the career profile of experienced dietitians.

The sample for the study was limited to female hospital and university medical center dietitians employed half time or more, with birth

dates between 1932 and 1949. A systematic sample of 1,126 names and addresses of the defined population was obtained from the A.D.A. membership data base. Dietitians outside the continental United States were excluded from the sample. From that list, a sample of 600 names was selected randomly for distribution of the research instrument. After initial and follow-up mailings, 64 per cent were returned (N = 381).

The instrument was developed through three drafts, involving review by educators, practitioners, and members of the Commission on Dietetic Registration. The first section of the final instrument contained thirty-eight questions covering educational background, qualifying experience for A.D.A. membership, number of years as an A.D.A. member, professional practice in various areas of dietetics, number of years out of work force, general job position information, continuing education, and future employment and educational plans. The second section was for recording information on all jobs held since becoming an A.D.A. member. The dietitians were classified according to present position as administrative, clinical, or general dietetic practitioners (also referred to as administrators, clinicians, and generalists).

A majority (57.1 per cent) of the dietitians had birth dates between 1944 and 1949. The administrative dietitians tended to be older; a majority of the administrative dietitians (58.4 per cent) had birth dates before 1944. The highest degree attained by 68.2 per cent of the dietitians was a bachelor's degree. The emphasis for a bachelor's degree for a majority of the group was general dietetics or food and nutrition. Food and nutrition was the major for 45.6 per cent of those holding a master's degree.

Eligibility for A.D.A. membership was gained through an internship for 60.6 per cent of the dietitians, compared to 76 per cent for dietitians generally. The second most frequent route to membership was through a master's degree and experience or assistantship. A large majority (80.2 per cent) of the internship graduates completed a general dietetic internship.

A large majority (87.5 per cent) of the dietitians were registered. Over 50 per cent became registered by taking the registration examination; however, only 34 per cent of the administrative dietitians became registered by examination. Since the administrative dietitians tended to be older, that group of dietitians would have become A.D.A. members before the first registration examination was given.

The mean years since completing an internship and since becoming A.D.A. members were significantly higher for the administrative dietitians. The administrative dietitians total years of employment since becoming members of A.D.A. were significantly longer than for the other practice areas. Only seventy-seven dietitians (21 per cent) indicated years of unemployment since becoming an A.D.A. member. The mean number of employers for the total group was less than three. The mean number of jobs in dietetic practice held was 3.72.

The youngest age group had the highest career fidelity ratio. Of the three practice groups, the administrators had the highest career fidelity ratio. The high career fidelity ratios of the group are explained by the low percentage of the total group of dietitians who had been unemployed since entering dietetic practice.

There were no significant effects of age or present practice area on the stable:trial ratio. The older age group tended to have a higher

stable:trial ratio than the two younger groups. Of the three practice groups, the administrative dietitians tended to have the highest stable:trial ratio and the clinical dietitians had the lowest when the means were adjusted for effects of age.

A majority of the total group of dietitians indicated experience in general and in clinical dietetics. Only about 35 per cent of the total group indicated experience in foodservice management. Fewer of those whose present practice area was in clinical dietetics had experience in the other areas of practice than was the pattern for administrative or generalist dietitians.

The clinical dietitians had a higher mean percentage of total professional practice in their present practice area than the administrative or generalist dietitians. Respondents in all three practice areas had more practice in their present practice area than in the other practice areas, which would indicate specialization within an area of the profession. For the total group the highest percentage of total practice was in clinical dietetics and the lowest in administration.

The clinical dietitians tended to be employed part time more often than the administrative dietitians. Almost 44 per cent of the total group studied were head or clinical dietitians, while only 22 per cent of the A.D.A. membership (59) were in clinical positions.

A majority predicted steady full time employment in both the next five and ten years. A smaller percentage of the thirty to thirty-five years age group predicted they would be steadily employed full time than did the two older age groups.

A majority of the dietitians in all three age groups and practice areas planned to stay in their present practice area for the next five

years. Over 35 per cent of the administrative dietitians who were thirty to thirty-five and forty-two to forty-seven indicated that they would like to work in an area other than dietetics within the next ten years.

The dietitians were asked to express their degree of interest in various dietetic positions. The administrative dietitians expressed definite interest in positions as director or head administrative dietitian. The clinical dietitians expressed strongest interest in positions as head clinical and clinical staff dietitian. The generalist dietitians tended to express interest in a variety of positions; director of dietetics, head clinical dietitian, generalist dietitian, and public health nutrition.

Ultimate professional objective in terms of a dietetic position was studied by age groups and present practice areas. Higher percentages of the administrative and generalist dietitians from all age groups indicated that their present position was congruent with their ultimate objective than was found among clinical dietitians. Administrative dietitians indicated more frequently that their ultimate objective was to be a director of dietetics than was reported by clinical dietitians. Also, more clinical dietitians indicated their ultimate objective was to be head clinical dietitian than was true for the administrative group.

A majority (60.3 per cent) of the total group indicated they might be interested in relocating in the future for a more attractive position. Factors indicated most often as those affecting acceptance of a more attractive position in another geographic area were the city or town where the position was located, part of the country, experience the position offered, and salary.

Continuing education of these mid career dietitians was studied from several perspectives: continuing education hours accumulated; attendance at national, state, and district dietetic association meetings; time devoted to professional reading; topics of seminars and workshops attended during the preceding three years; and plans for graduate study. During the past three years, over a third of the respondents had completed the seventy-five hours of continuing education required over a five-year period to maintain dietetic registration.

Over half of the dietitians indicated that they had attended one or more annual A.D.A. meetings within the past three years and 60 per cent had attended one or more state meetings. More than three-fourths of the group reported attendance at district meetings in the past year.

There was a relationship between present practice area and attendance at seminars or workshops including management related topics, nutrition and medical related topics, and general topics. Administrative dietitians reported attendance at seminars or workshops including management topics more frequently than did the other two groups; whereas the clinical dietitians reported attendance at such workshops least frequently.

Clinical dietitians reported more frequent attendance at seminars or workshops on twelve of the twenty-two nutrition and medical related topics than the other two groups. Generalist dietitians however, had the most frequent attendance at seminars or workshops on the other ten topics.

Three continuing education emphasis scores were computed for comparisons among the three practice groups. The management emphasis score of the administrative and generalist dietitians were significantly

higher than that of the clinical dietitians. The clinical dietitians tended to limit their attendance to seminars or workshops including nutrition or medical topics, rather than attending sessions including management related or general topics. The administrative dietitians reported attendance at seminars or workshops that included management topics most frequently, although these dietitians also reported attendance at sessions on nutrition, medical, and general topics fairly frequently.

A majority of the dietitians either held an advanced degree or had plans for graduate study. Almost half of the administrative, 13 per cent of the clinical and almost 25 per cent of the generalist dietitians indicated that their area of interest for graduate study was foodservice management or business administration. Food and nutrition or biochemistry were areas of interest for 33.4 per cent of the clinical dietitians, whereas food and nutrition was the area of interest for 14.3 per cent of the generalists. Between 16 and 21 per cent of the three practice groups indicated interest in two areas of specialization for graduate study.

Conclusions

Mid career dietitians in the three practice areas studied (administrative, clinical, and general) had the most professional dietetic practice in their present practice area, which would indicate a tendency to specialize in an area of the profession. Also, the clinical and administrative dietitians expressed interest in remaining in positions within their present practice area, while the generalists indicated interest in continuing in a generalist position or in attaining a position as a director and head clinical dietitian at some time in the

future. Ultimate professional objective in terms of a dietetic position also tended to be within present practice area.

The dietitians focused their attendance at seminars or workshops on topics that were related to their present practice area. For example, the clinical dietitians tended to limit their attendance to seminars or workshops including nutrition or medical topics, and the administrative dietitians reported attendance at seminars or workshops on management topics most frequently. Administrative dietitians also reported attendance at sessions on nutrition, medical, and general topics more frequently than clinical dietitians attended continuing education sessions outside their practice area.

Data from this study indicated that dietitians, at least those in the mid career stage, specialize in an area of dietetic practice and attempt to maintain competence by emphasizing that area of specialization in continuing education. More research is needed on career patterns, career aspirations and interests, and on continuing education plans and needs of other groups in the profession. Data from this research and from studies such as those suggested are needed for educational and personnel planning.

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APPENDIXES

APPENDIX A
Initial Correspondence

Department of Dietetics, Restaurant
and Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521-2

May 5, 1978

TO: Hospital Dietitians in Pilot Study

FROM: Donna J. Fargen, R.D.
Graduate Student

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

We appreciate your willingness to help in the pilot study which is part of a research project here at K-State on the career patterns of dietitians and continuing education needs throughout the dietitian's career.

We want your honest reactions and criticisms to help us finalize the questionnaire. The final questionnaire will be distributed to a national sample of hospital dietitians.

Enclosed is a copy of the preliminary questionnaire, a form to evaluate the questionnaire, and the cover letter that will be sent to participants in the actual study. After reading the cover letter and completing the questionnaire, please evaluate them both. Please feel free to make any suggestions you believe will improve the study. During the interview we have arranged, I would like to discuss the questionnaire with you.

We appreciate your help!

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

October 10, 1978

TO: Hospital Dietitians in Pilot Study

FROM: Donna J. Fargen, R.D.
Graduate Teaching Assistant

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

Last May you completed the first draft of a questionnaire being developed for a research project here at K-State on the career profile of dietitians. Revisions were made based on comments of the dietitians interviewed. A second draft was reviewed by three members of The Commission on Dietetic Registration. Draft III contains revisions based on their comments.

Enclosed is Draft III of the questionnaire, a form to evaluate the questionnaire and the cover letter that will be sent to participants in the actual study. You do not need to complete the questionnaire. Please review the questions and evaluate them. We want your honest reactions and criticisms to help us finalize the questionnaire.

Please return the questionnaire and evaluation form in the envelope provided.

We appreciate your help.

Department of Dietetics, Restaurant
and Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521-2

October 11, 1978

TO: Graduate Students and Faculty Reviewers

FROM: Donna J. Fargen, R.D.
Graduate Teaching Assistant

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

We appreciate your willingness to help in the pilot study which is part of a research project here at K-State on the career profile of dietitians and continuing education needs throughout the dietitian's career. We want your honest reactions and criticisms to help us finalize the questionnaire.

Nine Topeka dietitians completed and evaluated the first draft of the questionnaire. Revisions were made based on their comments. A second draft was reviewed by three members of The Commission on Dietetic Registration. Draft III contains revisions based on their comments.

Enclosed is Draft III of the questionnaire, a form to evaluate the questionnaire, and the cover letter that will be sent to participants in the actual study. You do not need to complete the questionnaire unless you wish to. Please review the questions and evaluate them. Feel free to make any suggestions you believe will improve the study. Please return the questionnaire and the evaluation form.

We appreciate your help.

Department of Dietetics, Restaurant
and Institutional Management

Kansas State University

EVALUATION OF THE QUESTIONNAIRE

1. Was the questionnaire difficult to answer?
 Yes
 No
2. Indicate the number of the questions you found difficult to answer.
 NUMBER COMMENTS
3. What suggestions do you have for revising the questionnaire?
 None, leave questionnaire as it is
 Suggestions, please specify
4. What additions would you suggest?
 None
 Additions, please list below
5. What would you omit on the questionnaire?
 Nothing
 Omit, please list below
6. How long did it take to fill out the questionnaire?

7. Other comments:

APPENDIX B
Research Instrument

Career Profile of Hospital Dietitians

1. When were you born?
 - ☐ (1) Prior to 1920
 - ☐ (2) 1920-1925
 - ☐ (3) 1926-1931
 - ☐ (4) 1932-1937
 - ☐ (5) 1938-1943
 - ☐ (6) 1944-1949
 - ☐ (7) 1950-1955

2. What was your ADA membership route?
 - ☐ (1) Dietetic internship
 - ☐ (2) Coordinated undergraduate program
 - ☐ (3) Combined dietetic internship-master's degree program
 - ☐ (4) Master's degree with experience or assistantship
 - ☐ (5) Doctoral degree
 - ☐ (6) Dietetic traineeship
 - ☐ (7) Bachelor's degree with experience
 - ☐ (8) Other, please specify _____

3. When did you become an ADA member?
 - _____ year

4. What is your most advanced degree?
 - ☐ (1) Bachelor's
 - ☐ (2) Master's
 - ☐ (3) Ph.D.

5. When were your degrees awarded?
 - YEAR
 - ☐ (1) Bachelor's
 - ☐ (2) Master's
 - ☐ (3) Ph.D.

6. What was the major emphasis of your undergraduate study?
 - ☐ (1) General dietetics
 - ☐ (2) Foodservice or institutional management
 - ☐ (3) Clinical dietetics
 - ☐ (4) Community nutrition
 - ☐ (5) Food and nutrition
 - ☐ (6) Home economics education
 - ☐ (7) Education, other than home economics
 - ☐ (8) Other, please specify _____

7. Indicate the major emphasis of your advanced degree(s).
 - a. Emphasis of master's _____
 - b. Emphasis of Ph.D. _____

8. a. Indicate total number of graduate hours completed beyond your most advanced degree.
 - _____ semester hours
 - _____ quarter hours

- b. If you have completed 6 or more hours, what was the major emphasis of that graduate school work? _____

- c. When was your last academic enrollment?
 - _____ year

9. a. If you completed an internship what was the major emphasis?
 - ☐ (1) General
 - ☐ (2) Management
 - ☐ (3) Public Health
 - ☐ (4) Clinical
 - ☐ (5) School Foodservice
 - ☐ (6) Other, please specify _____

- b. When did you complete your internship?
 - _____ year

10. a. Registration status (R.D.):
 - ☐ (1) Registered
 - ☐ (2) Nonregistered

- b. If registered, when did you become registered?
 - _____ year

- c. How did you become registered?
 - ☐ (1) Grandfather clause
 - ☐ (2) R.D. exam

11. Total number of years employed in the profession (full or part time) since first becoming a member of ADA.
 - _____ years

12. a. Since you first became a member of ADA have you maintained your membership continuously?
 - ☐ (1) Yes
 - ☐ (2) No

- b. If no, for what period of time did you drop your membership?
 - _____ years

- c. If no, when was membership reinstated?
 - _____ year

13. a. For how many different organizations have you worked since becoming an ADA member?

- b. How many jobs have you held in dietetic practice (this may include multiple jobs within the same organization)?

14. a. Since you became a member of ADA have you been unemployed for one or more years?
____ (1) Yes
____ (2) No
- b. If you answered Yes to question 14a, indicate the total number of years you have been unemployed.
_____ years
15. a. Since becoming a dietitian have you ever been employed in an area other than dietetics?
____ (1) Yes
____ (2) No
- If you answered Yes to question 15a, answer b and c.
- b. Indicate the total number of positions held outside of dietetics.

- c. Indicate the total number of years employed in an area other than dietetics since becoming an ADA member.
_____ years
16. How many years of experience (full or part time) do you have in the following areas?
YEARS
- ____ (1) Generalist (administrative, clinical and/or teaching responsibilities)
____ (2) Clinical dietetics
____ (3) Foodservice management (hospital, school, college, or commercial)
____ (4) Community nutrition or public health
____ (5) Teaching (college; university; school of nursing, dentistry or medicine; vocational-technical school)
____ (6) Health care facility consultant
____ (7) Private practice--Nutrition counseling
____ (8) Other dietetic practice areas, please specify
YEARS

17. What is your present employment status?
____ (1) Employed full time (35 hours per week or more)
____ (2) Employed half time or more but less than full time
____ (3) Employed less than half time
____ (4) Not employed, but seeking employment
____ (5) Not employed, not seeking employment
____ (6) Retired, not seeking employment
____ (7) Full time student
18. Indicate your present position title(s).

19. Indicate your present place(s) of employment.
____ (1) Hospital (other than Univ. Med. Ctr.)
____ (2) University Medical Center
____ (3) Other, please specify

20. Indicate which statement applies to your decision to accept your present position.
____ (1) It was exactly the job I wanted
____ (2) It was the best job available
____ (3) It was the only job available
21. If you are not presently employed, do you anticipate active employment in dietetics within the next 2-5 years?
____ (1) Yes
____ (2) No
22. Are you willing to relocate to get a more attractive position in dietetics?
____ (1) Yes, interested now
____ (2) Might be in future
____ (3) Definitely not
23. Please indicate factors which would affect your accepting a more attractive position in another geographic location. Rate each item using the following scale:
1--Definitely a factor
2--Somewhat a factor
3--Not a factor
- ____ (1) Like present location, would not want to leave
____ (2) The city or town itself where position is located
____ (3) Whether the position is located in a large or small city
____ (4) The part of the country
____ (5) Spouse's job
____ (6) Family considerations
____ (7) The experience the position offers
____ (8) The salary
____ (9) Like present position, would not want to change
24. Indicate what you anticipate in terms of employment for the next five years and the next ten years. Check one in each column.
- | 5
<u>YEARS</u> | 10
<u>YEARS</u> |
|--|--|
| ____ (1) Steadily employed on a full time basis | ____ (1) Steadily employed on a full time basis |
| ____ (2) Steadily employed on a part time basis | ____ (2) Steadily employed on a part time basis |
| ____ (3) Out of the work force for reasons other than retirement | ____ (3) Out of the work force for reasons other than retirement |
| ____ (4) Uncertain about plans | ____ (4) Uncertain about plans |
| ____ (5) Some combination of full time and part time employment over the years | ____ (5) Some combination of full time and part time employment over the years |
| ____ (6) Retirement | ____ (6) Retirement |

25. Indicate which statement applies to your plans for the next 5 years and the next 10 years. Check only one in each column.

5 YEARS	10 YEARS
☐	☐
☐	☐
☐	☐

- (1) Will probably stay in my present dietetic practice area
(2) Would like to work in another dietetic practice area
(3) Would like to work in an area other than dietetics

26. Review the following list of jobs in dietetics. Indicate your interest in accepting each job listed, if such a job were available. Use the following scale:

- 1--Definitely interested
2--Somewhat interested
3--Not interested

- ☐ (1) Director of Dietary Department
☐ (2) Head administrative dietitian
☐ (3) Head clinical dietitian
☐ (4) Administrative staff dietitian
☐ (5) Clinical staff dietitian
☐ (6) Generalist (administrative, clinical and teaching responsibilities)
☐ (7) Research dietitian
☐ (8) Internship director
☐ (9) College or University faculty
☐ (10) Private practice--Nutrition counseling
☐ (11) Health Care Facility Consultant
☐ (12) Public Health Nutritionist
☐ (13) Coordinated program director

27. What is your ultimate professional objective in terms of a dietetic position? (Check one.)

- ☐ (1) Now hold position congruent with ultimate objective
☐ (2) Director of Dietary Department
☐ (3) Head administrative dietitian
☐ (4) Administrative staff dietitian
☐ (5) Head clinical dietitian
☐ (6) Clinical staff dietitian
☐ (7) Generalist (administrative, clinical and teaching responsibilities)
☐ (8) Research dietitian
☐ (9) Internship director
☐ (10) Coordinated program director
☐ (11) College or University faculty
☐ (12) Private practice--Nutrition counseling
☐ (13) Health Care Facility Consultant
☐ (14) Public Health Nutritionist
☐ (15) Would like to change professions, please specify objective

- ☐ (16) Other, please specify

28. How many total continuing education hours, accepted by ADA, have you accumulated in the past 3 years?

- ☐ (1) 0-14 hours
☐ (2) 15-29 hours
☐ (3) 30-44 hours
☐ (4) 45-59 hours
☐ (5) 60-74 hours
☐ (6) 75 or more hours

29. In the last 3 years how many ADA annual meetings have you attended?

ADA meetings

30. In the last 3 years how many state dietetic association meetings have you attended?

state meetings

31. In the last year how many district meetings have you attended?

district meetings

32. If you attend continuing education programs outside of your employing institution, what is the usual annual dollar amount contribution of your employer?
\$ _____/annually

33. From the following list, check your professional memberships (exclude ADA Dietetic Practice Groups).

- ☐ (1) American Dietetic Association
☐ (2) Society for Nutrition Education
☐ (3) American School Foodservice Association
☐ (4) American Home Economics Association
☐ (5) American Society for Hospital Foodservice Administrators
☐ (6) American Public Health Association
☐ (7) American Diabetes Association
☐ (8) Other organizations, please specify

34. In these associations, have you held any officer or committee positions presently or in the past 5 years? Please check as many as apply to you.

ADA	All other org.	
☐	☐	(1) National officer
☐	☐	(2) National committee member
☐	☐	(3) State officer
☐	☐	(4) State committee member
☐	☐	(5) District officer
☐	☐	(6) District committee member

35. On the average how many hours do you devote to reading professional literature in a typical week?

_____ hours

36. Check the statement or statements which apply to your plans pertaining to graduate study.

☐ (1) Hold advanced degree, have no plans for further study at present

☐ (2) Have no plans for graduate study at this time

☐ (3) Now working on first Master's degree

☐ (4) Plan to start work on a Master's degree within the next 1 to 3 years

☐ (5) Plan to start work on a Master's degree within the next 3 to 5 years

☐ (6) Now working on, or plan to start work on, second Master's

☐ (7) Now working on a Ph.D.

☐ (8) Plan to start work on a Ph.D. within the next 5 years

☐ (9) Plan to take some graduate school courses but do not plan on getting a Master's degree

☐ (10) Plan to take some courses beyond a Master's degree but do not plan on getting a Ph.D.

37. What area of graduate study are you interested in pursuing if advanced study was recently started or is planned in near future?

☐ (1) Food and Nutrition

☐ (2) Nutrition or Biochemistry

☐ (3) Public Health

☐ (4) Foodservice Management

☐ (5) Food Technology

☐ (6) Education

☐ (7) Business Administration

☐ (8) Other, please specify _____

☐ (9) Not applicable

38. Check the topics covered in seminars or workshops (other than regularly scheduled ADA state and district meetings) for which you have earned continuing education hours in the last 3 years.

Management Related Topics

☐ (1) Food production

☐ (2) Food service

☐ (3) Computer-assisted management

☐ (4) Purchasing

☐ (5) Foodservice systems

☐ (6) Cost control

☐ (7) Budgeting

☐ (8) Equipment and layout

☐ (9) Sanitation

☐ (10) Safety

☐ (11) Employee training

☐ (12) Inventory control

☐ (13) Food specifications

☐ (14) Storage and security

☐ (15) Standardized recipes

☐ (16) Judging quality food products

☐ (17) Food merchandising

☐ (18) Work simplification

☐ (19) Financial reports

☐ (20) Job descriptions

☐ (21) Scheduling

Nutrition and Medical Related Topics

☐ (22) Food habits
(factors affecting, etc.)

☐ (23) Nutrition and drug interrelations

☐ (24) Diabetes

☐ (25) Urology

☐ (26) Pediatrics

☐ (27) Cardiology

☐ (28) Geriatrics

☐ (29) Cancer

☐ (30) Minerals

☐ (31) Vitamins

☐ (32) Obesity

☐ (33) Vegetarian diets

☐ (34) Weight control

☐ (35) Fat restricted diet

☐ (36) Cholesterol controlled diet

☐ (37) Fiber controlled diet

☐ (38) Pregnancy

☐ (39) Lactation

☐ (40) Infant nutrition

☐ (41) Digestion and metabolism

☐ (42) Nutritional assessment

☐ (43) Hyperalimentation

Other Topics

☐ (44) Personnel inservice education

☐ (45) Audiovisual aids

☐ (46) Private practice counseling techniques

☐ (47) Communication skills

☐ (48) Time management

☐ (49) Professional standards review

☐ (50) Food science (additives, labeling, etc.)

☐ (51) Legislation

☐ (52) Quality assurance

☐ (53) Others, please specify

a. _____

b. _____

c. _____

d. _____

e. _____

39. Please complete the following chart to provide a picture of your employment background. Include all dietetic positions held since becoming an ADA member including employment in other than the dietetics profession.

Between each space for reporting jobs you have held, space is provided for reporting periods of unemployment; include periods of full-time homemaking, graduate study, etc.

Start with your present position and end with the first position you held as an ADA member.

For items IV-VII on each job, use the code sheet provided. Fill in the blanks with the code letter for items IV-VII. Use one or more letters for an item as needed. Codes are not needed for items I, II, and III.

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? _____ Yes _____ No	
If Yes, indicate dates: From _____ To _____ month/year month/year	
If <u>Yes</u> , indicate reason: _____ Raise family _____ Attend school _____ Other, please specify _____	

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? _____ Yes _____ No	
If Yes, indicate dates: From _____ To _____ month/year month/year	
If <u>Yes</u> , indicate reason: _____ Raise family _____ Attend school _____ Other, please specify _____	

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment _____ From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

I. Dates of employment From _____ To _____ month/year month/year		II. Full time _____ Part time _____
III. Number of <u>other</u> Dietitians on staff _____		
IV. Position title (see code)	V. Type of facility (see code)	
VI. Brief description of duties: (see code)		
VII. Reason for leaving: (see code)		

Was there a period of unemployment between the above and the previous position? ☐ Yes
☐ No

If Yes, indicate dates: From _____ To _____
month/year month/year

If Yes, indicate reason: ☐ Raise family
☐ Attend school
☐ Other, please specify _____

This is the code sheet for answering question 39, items IV, V, VI, and VII. See question 39 for further directions.

IV. Position Title

- 1) Director
- 2) Associate or Assistant Director
- 3) Head Administrative Dietitian
- 4) Administrative Staff Dietitian
- 5) Head Clinical Dietitian
- 6) Clinical Dietitian
- 7) Generalist Dietitian (Administrative, clinical and teaching responsibilities)
- 8) Research Dietitian
- 9) Internship Director
- 10) Teaching Dietitian
- 11) Community Dietitian
- 12) Private Practice--Nutrition Counseling
- 13) Health Care Facility Consultant
- 14) Other dietetic position title, please specify
- 15) Non-dietetic position, please specify title

V. Type of facility

- 1) Hospital (other than Univ. Med. Center)
- 2) University Medical Center
- 3) Nursing Home
- 4) Other Health Care Facility
- 5) Public or Voluntary Health Agency
- 6) Government Agency (if other than public health)
- 7) School Foodservice
- 8) University and Residence Hall Foodservice
- 9) College or University, Faculty
- 10) Vocational/Technical Schools, Faculty
- 11) Community/Jr. College, Faculty
- 12) Commercial and Industry Foodservice
- 13) Business
- 14) Self Employed as a Health Care Facility Consultant
- 15) Private Practice--Nutrition Consultant

VI. Description of duties

Foodservice Administration

- 1) Food Production and/or Service
- 2) Data Processing
- 3) Purchasing
- 4) Cost Control
- 5) Budgeting
- 6) Equipment and Layout
- 7) Sanitation and Safety
- 8) Personnel Inservice Education
- 9) Menu Planning
- 10) Selects and schedules personnel
- 11) Evaluates personnel

Clinical

Nutrition care in these speciality areas:

- 12) General
- 13) Diabetic
- 14) Metabolic--Clinical Research
- 15) Medical
- 16) Surgical
- 17) Renal
- 18) Pediatric
- 19) Cardiology
- 20) Out-patient counseling
- 21) Private Practice--Nutrition Counseling
- 22) Health Care Facility Consultant
- 23) Community Responsibilities

Teaching

- 24) Dietetic Students
- 25) Foodservice Systems Students (including Hotel and Restaurants)
- 26) Medical and Dental Students
- 27) Nursing Students
- 28) Dietetic Tech./Assistant Students

VII. Reason for leaving

- 1) Accept a better paying job
- 2) Accept a job with better hours
- 3) Wanted to get different experience
- 4) Wanted a more challenging job
- 5) Didn't like the work
- 6) To go back to school
- 7) Raise a family
- 8) To care for family members
- 9) Spouse transferred to another city
- 10) Wanted to move to a different city
- 11) Promotion within facility
- 12) Other, please specify

APPENDIX C
Final Letters

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

February 19, 1979

Dear Colleague:

At Kansas State University we are currently engaged in a project to study the career profile of dietitians. This study is designed to look at the type of jobs dietitians have held throughout their careers and the amount of movement between the different areas of professional expertise. The questionnaire is being sent to a sample of hospital and medical center dietitians employed half time or more. This group was limited to those born in 1932 to 1949. Most dietitians in this age group have been in the work force over five years and have at least twenty years remaining to practice dietetics before retirement. The sample was randomly selected from The American Dietetic Association membership listings.

We need your help in order that we may obtain an accurate picture of the career profile of dietitians. The questionnaire is identified by code number for follow-up purposes only. Your name will not be linked with your responses. All information will be confined to the investigators; confidentiality is assured.

This survey is being conducted under guidelines established by Kansas State University. By cooperating you will help provide answers to important questions related to education programming for dietitians; however your participation is strictly voluntary. We would appreciate your responses to all items on the questionnaire; although if there are individual items you would prefer not to answer, please leave those blank. Your return of the questionnaire will indicate your willingness to participate in the study.

If you have any comments please feel free to express them. When you have completed the questionnaire, please place it in the enclosed stamped envelope and drop it in the mail. This should take only 30 to 45 minutes of your time--will you please return it to us by the end of the week? If you have any questions concerning this research, please contact by phone or mail either one of the research team. Thank you for your cooperation and time in answering the questionnaire.

Sincerely,

Allene G. Vaden, Ph.D., R.D.
Associate Professor

Donna Fargen, R.D.
Graduate Teaching Assistant

Department of Dietetics, Restaurant
and Institutional Management
Justin Hall
Manhattan, Kansas 66506
Phone: 913 532-5521-2

March 16, 1979

Dear Colleague:

We need your help! Last month we sent you a questionnaire concerning a survey of the career profile of dietitians. For the study to yield valid results, we need responses from all dietitians in the sample.

In the event you did not receive the mailing, let me briefly restate the purpose of the study. The study is designed to look at the type of jobs dietitians have held throughout their careers and the amount of movement between the different areas of professional practice.

As indicated earlier, all information will be confidential; the questionnaire is identified by code number for follow-up purposes only. Your name will not be linked with your responses.

Enclosed is another survey form in the event it is needed. When you have completed the questionnaire, please place it in the enclosed stamped envelope and drop it in the mail. Thank you for your cooperation and time in answering the questionnaire.

Sincerely,

Allene G. Vaden, Ph.D., R.D.
Associate Professor

Donna Fargen, R.D.
Graduate Teaching Assistant

fj

enclosures

APPENDIX D
Coding Directions and Forms

Career Profile of Hospital Dietitians

Code Form, Card 1 *

<u>Card</u> <u>Column</u>		<u>Column</u>	
1-3	_____ ID	38	_____ Ques. 12. a.
4	_____ Return ((1) Initial or (2) follow-up)	39-40	_____ " b. (record yrs.)
5	_____ 1 Card Code	41-42	_____ " c. (record yrs. since)
6	_____ Ques. 1	43-44	_____ Ques. 13. a.
7	_____ Ques. 2	45-46	_____ " b.
8-9	_____ Ques. 3 (record total yrs. since becoming a member)	47	_____ Ques. 14. a.
10	_____ Ques. 4	48-49	_____ " b.
11-12	_____ Ques. 5 (1) (record no. yrs. since receiving degree)	50	_____ Ques. 15. a.
13-14	_____ " (2)	51	_____ " b.
15-16	_____ " (3)	52-53	_____ " c.
17	_____ Ques. 6	54-55	_____ Ques. 16. (1)
18	_____ Ques. 7. a. (use code from ques. 6)	56-57	_____ " (2)
19	_____ " b.	58-59	_____ " (3)
20-22	_____ Ques. 8. a. (hours beyond BS)	60-61	_____ " (4)
23-25	_____ " " (hours beyond MS)	62-63	_____ " (5)
26	_____ " b. (code from ques. 6)	64-65	_____ " (6)
27-28	_____ " c. (record yrs. since)	66-67	_____ " (7)
29	_____ Ques. 9. a.	68-69	_____ " (8)
30-31	_____ " b. (record yrs. since)	70	_____ Ques. 17
32	_____ Ques. 10. a.	71-72	_____ Ques. 18 (use code for Ques. 39)
33-34	_____ " b. (record yrs. since)	73	_____ Ques. 19
35	_____ " c.	74	_____ Ques. 20
36-37	_____ Ques. 11 (record yrs.)	75	_____ Ques. 21
		76	_____ Ques. 22

Go to question 23, p. 2 for Card 3

* Record response from questionnaire, unless otherwise indicated.

Format and Codes, Cards 2, 3

(Record directly on questionnaire, as necessary)

Card 2
Column

1-3	ID
4	Return code 1--initial, 2--follow-up
5	Card code--2
6-14	Ques. 23 (1)-(9), Record rating code 1-3 for each question
15	Ques. 24, 5 yrs. response
16	Ques. 24, 10 yrs. response
17	Ques. 25, 5 yrs. response
18	Ques. 25, 10 yrs. response
19-31	Ques. 26 (1)-(13), Record interest rating 1-3
32-33	Ques. 27, Record 1-16
34	Ques. 28
35	Ques. 29
36	Ques. 30
37-38	Ques. 31
39-42	Ques. 32, Record \$/yr.
43-50	Ques. 33, Record 1--if org. checked (✓) 2--if not
51-56	Ques. 34, ADA (1)-(6), Record 1--if indicated by check (✓) ADA positions were held
57-62	Ques. 34, Other org. (1)-(6), Record 1--if indicated by check (✓) other org. positions were held 2--if not
63-64	Ques. 35, Record hrs./week
65-74	Ques. 36 (1)-(10), Record 1--if statement is checked (✓) 2--if not
75-76	Ques. 37, Record 1-10

Card 3
Column

1-4	Same as Card 2
5	Card code--3
6-58	Ques. 38 (1)-(53), Record 1--if topic is checked (✓) 2--if not

Summary Data

Column

- 1-3 _____ ID
- 4 _____ blank
- 5 _____ Card Code
- 6 _____ 1. Years before entering field.
(record yrs. between ques. 3
and yr. start first job).
0 = none or less than 6 mos.
1 = 6 mos. to 1 yr.
2 = 1-2 yrs.
3 = over 2 to 3 yrs.
4 = over 3 yrs.
- 7 _____ 2. Years in position before ADA
membership. Count time in a
position only if person remained
in that job after becoming an
ADA member.
(Yr. ADA member--beginning yr.
of job)
0 = none to 6 mos.
1 = over 6 mos. to 1 yr.
2 = over 1 yr. to 2 yrs.
3 = over 2 yrs. to 3 yrs.
4 = over 3 yrs. to 4 yrs.
5 = over 4 yrs. to 5 yrs.
6 = over 5 yrs.
- 8-10 _____ 3. Mos. in practice before first
mos. period of unemployment.
- 11 _____ 4. Reason for first break.
(code from unemployment block)
1 = family
2 = school
3 = other
- 12-14 _____ 5. Length of first break
(record mos.)
- 15 _____ 6. Specialty at entry
1 = admin. A
2 = clin. C
3 = community CM
4 = general G
- 16 _____ 7. Function at entry
1 = practice P
2 = teaching T
3 = consulting C
- 17 _____ 8. Code Trial-Stable pattern
1. Stable (--stable)
2. Stable-trial-stable (--stable)
Secure 3. Trial-stable (--trial-stable-
stable)
4. Trial-stable-trial-stable
(--stable-stable)
5. Trial-stable-trial
Insecure 6. Trial
7. Stable-trial
8. Trial-trial-trial
- 18-20 _____ Mos. in stable jobs
- 21-23 _____ Mos. in trial jobs

Column

- 24 _____ 9. Code Specialty Shifts
1. Same specialty throughout career.
2. One shift in specialty. (2
specialties/career)
3. Two shifts in specialty only 2
specialties. (2 specialties/
career)
4. Three or more shifts in specialty
between only 2 specialties.
(2 specialties/career)
5. Two shifts in specialty among 3
specialties. (3 specialties/
career)
6. Three or more shifts in specialty
among 3 specialties. (3 specialties/
career)
7. Three shifts in specialty among 4
specialties. (4 specialties/
career)
8. Four shifts in specialty among 4
specialties. (4 specialties/
career)
9. Five or more shifts in specialty
among 4 specialties. (4
specialties in career)
- 25-27 _____ Mos. on admin.
- 28-30 _____ Mos. in clin.
- 31-33 _____ Mos. in community
- 34-36 _____ Mos. in gen.
- 37 _____ 10. Code function shifts
1. Practice only
2. Teaching only
3. Consulting only
4. Practice and Teaching
5. Practice and Consulting
6. Teaching and Consulting
7. All 3 functions
- 38-40 _____ Mos. in practice
- 41-43 _____ Mos. in teaching
- 44-46 _____ Mos. in consulting
- 47 _____ 11. Function--present position
1 = practice P
2 = teaching T
3 = consulting C
- 48 _____ 12. Specialty--present position
1 = admin. A
2 = clin. C
3 = community CM
4 = general G
- 49 _____ 13. No. of career breaks (exclude those
less than 3 mos.)
- 50 _____ 14. No. of non-dietetic positions (since
ADA membership)
- 51-53 _____ 15. Mos. in non-dietetic positions

TRIAL-STABLE PATTERN

Work Sheet for Summary Data Form

pattern

STABLE JOBS—months

total
mos.

TRIAL JOBS—months

total
mos.SPECIALTY SHIFTSpattern

Administration

total
mos.

Clinical

total
mos.

Community

total
mos.

General

total
mos.FUNCTIONAL SHIFTSpattern

Practice

total
mos.

Teaching

total
mos.

Consulting

total
mos.

Codes, Question 39. Job History Data

Card 5*
Column

1-3	ID	
4	Blank	
5	*Card code--begin with 5, use additional cards as needed. Record 2 jobs/card; begin with first position.	
6-7	Job sequence no.	
8-10	Length of employment in months	
11	Status of employment Code: 1--full time, 2--part time	
12-13	No. of dietitians on staff	
14-15	Title--enter code from sheet provided with questionnaire, add: (16) Renal dietitian	
16-17	Type of facility--code from sheet	
18-24	Description of duties	
	18:A - Administrative duties	
	Code 1 - 1-3 foodservice administration duties indicated from code sheet	
	2 - 2-4 duties	
	3 - 7 or more	
	19:C - Clinical dietetics duties	
	Code 1 - general clinical, code 12 and/or at least 3 or other from code sheet	
	2 - medical emphasis (code 15 or 15 and 13, 14, 17, 18, or 19)	
	3 - surgical, code 16	
	4 - renal, code 17	
	5 - research, code 14	
	6 - medical specialty (code 13 or 19)	
	7 - pediatric, code 18	
	8 - combination of 2	
	20:OP - Outpatient, code 20	enter
	21:PP - Private Practice, code 21	1 if
	22:CS - Consultant, code 22	duty
	23:CN - Community Nutrition, code 23	indicated
	24:T - Teaching	
	Code 1 - Dietetic Students, code 24 from code sheet	
	2 - Foodservice, code 25	
	3 - Medical-dental, code 26	
	4 - Nursing, code 27	
	5 - Dietetic Tech./Assistant, code 28	
	6 - code 26 and 27	
	7 - code 24 and 28	
	8 - other combination of 2	
	9 - combination of 3 or more	
	0 - non-dietetic teaching	

- 25-26 Reason for leaving
code 1-12 from code sheet
Additional codes:
13 - code 1 and 2
14 - code 3 and 4
15 - marriage
16 - funds or grant ended, contract ended
17 - temporary position
18 - travel
19 - health
20 - 2 or more reasons
21 - transferred
- 27 Career break after job
code 1--yes, 2--no
- 28-30 Length of break in months
- 31 Reason
Code 1 - raise family
2 - attend school
3 - other
4 - marriage
5 - moving
6 - travel
7 - health
8 - job unavailable or looking for job
- 32-57 Record data on second job in same sequence as Job 1.
(refer to code sheet)
- 58-59 Total number of jobs held.

CAREER PATTERNS OF HOSPITAL DIETITIANS IN MID CAREER
AND IMPLICATIONS FOR CONTINUING EDUCATION

by

DONNA J. FARGEN

B.S., Mount Mary College, 1975

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Dietetics, Restaurant
and Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1980

ABSTRACT

The objective of this study was to identify implications for continuing education from a survey of the career profile of experienced dietitians. The specialized training of dietitians in their college, internship, or other educational preparation programs and positions held since entering the work force were examined, as well as career breaks and career interests. The study was limited to those in the mid career part of the maintenance career stage, according to the typology of Hackman and Suttle, since these dietitians may have had several career changes but still have a number of years remaining in their professional life.

The sample for the study was limited to female hospital and university medical center dietitians employed half time or more, with birth dates between 1932 and 1949. A systematic sample of 1,126 names and addresses of the defined population was obtained from the A.D.A. membership data base. Dietitians outside the continental United States were excluded from the sample. From that list, a sample of 600 names was selected randomly for distribution of the research instrument. After initial and followup mailings, 64 per cent were returned (N = 381).

The instrument was developed through three drafts, involving review by educators, practitioners, and members of the Commission on Dietetic Registration. The first section of the final instrument contained thirty-eight questions covering educational background, qualifying experience for A.D.A. membership, number of years as an A.D.A. member, professional practice in various areas of dietetics, number of years out of the work force, general job position information, continuing education, and future

employment and educational plans. The second section was for recording information on all jobs held since becoming an A.D.A. member.

Data were analyzed using two key independent variables: present practice area (administrative, clinical, or general dietetics) and age. Career fidelity (years employed in relation to years in the profession), ratio of stable (3 years duration or longer) to trial (less than 3 years) jobs, and ratio of years in various specialties were variables used to analyze job profile data.

The administrative dietitians were older and had worked longer than the clinical or generalist dietitians. Employment outside the profession of dietetics was limited (mean < 3 years). Also, the career fidelity and trial:stable ratios were higher for the administrative dietitians than for the other dietitians, indicating they had been unemployed less and tended to hold jobs longer. Data on years worked in various specialties showed that previous work experience was concentrated in present area of practice. Most of the dietitians studied predicted they would continue to be employed and planned to remain in their present dietetic practice area. Administrative dietitians indicated most frequently that their present positions were congruent with their ultimate professional objective. Emphasis of continuing education was consistent with area of practice; i.e., the dietitians surveyed tended to pursue educational opportunities related to their present specialization most frequently.

Data from this study indicated that dietitians, at least those in the mid career stage, specialize in an area of dietetic practice and attempt to maintain competence by emphasizing that area of specialization in continuing education. More research is needed on career patterns, career aspirations and interests, and on continuing education plans and

needs of other groups in the profession. Data from this research and from studies such as those suggested are needed for educational and personnel planning.