

A DESCRIPTIVE STUDY OF THE IMPACT OF INTRINSIC AND EXTRINSIC FACTORS
ON THE CAREER PATHS OF CLINICAL NUTRITION MANAGERS

by

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Abstract

Registered Dietitians (RDs) attribute the success of their careers to a variety of factors, including formal education, influential mentors, specific skill sets, flexibility, and even having a supportive spouse. RDs with strong management skills are increasingly in demand in order to coordinate nutrition care and services in a cost effective manner. Clinical Nutrition Managers (CNMs) specifically coordinate medical nutrition therapy across the continuum of patient care. To aid in the career development of CNMs, research is necessary to determine the factors that have positive and negative effects on their career paths.

This study examined intrinsic and extrinsic factors that impact the career paths of CNMs in addition to perceived career satisfaction. A five-part online survey was disseminated to members of the Clinical Nutrition Management Dietetic Practice Group (CNM DPG). CNMs were also defined as RDs who coordinate medical nutrition therapy and who manage personnel, finances, or both. Results (n=146) of both quantitative and qualitative analyses identified key intrinsic factors that demonstrated a positive effect on CNMs' career paths including self-motivation, communication skills, teamwork, and leadership skills.

The study also examined CNMs' perceptions about the extrinsic factors on their career paths. Support from upper-level management and administration was identified as a crucial factor in career advancement. Having support from family was shown to be a positive influence, while many CNMs also reported that family needs and expectations, unforeseen life circumstances, and the economic climate had limited their career paths. Social service motivation had a slightly positive influence on career paths. Perceptions about career satisfaction indicated that CNMs were moderately satisfied with overall career success but less satisfied with income and career ladders.

This study serves as an important precursor to future research which could explore CNMs' perceptions regarding pay equity as well as the intrinsic and extrinsic factors that are more critical at various junctures in their career paths. Results from the study also help to fill an existing gap in the dietetics and career path literature and will also assist the Academy of Nutrition and Dietetics and others in developing strategies to foster the career development of CNMs.

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Dedication

I would like to dedicate this thesis to Lars, my 7-year old German shepherd dog who was been with me through my entire graduate school and thesis journey. Lars was ever patient when there was less time to play and go for walks because I needed more time to write and think.

Lars is also the epitome of several of the key intrinsic factors explored in this thesis. He exemplifies the qualities of adaptability and resilience, and he is always willing to learn new skills to further his knowledge and abilities. During the time of my thesis, he has earned his highest level dog tracking title, learned how to do scent detection for a search and rescue team, was signed on by a commercial film agency for dogs, and more recently learned how to swim. Like Lars and many of the clinical nutrition managers in this study, I am inspired to be a “lifelong learner.”

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Chapter 1 – Introduction

Personal Reflection

As the current Clinical Nutrition Manager (CNM) at a rural hospital, I sometimes visit with local high school students seeking to become Registered Dietitians (RDs). For most, the passion about pursuing a career that is not known to be highly lucrative nor particularly glamorous is clear. I sometimes explain the reasons that I decided to pursue my career over twenty five years ago, which included an intense interest in food and nutrition combined with a desire to work with people. I give these aspiring dietitians a realistic overview of the dietetics coursework that awaits them and insight about the challenge of obtaining an accredited dietetic internship. I also share that the job outlook for dietitians over the next decade is very good.

Unfortunately, many of today's aspiring dietitians enter the field of dietetics with a very narrow career view and seek to work solely in health and wellness or with directly with patients. Ideally, tomorrow's RDs should be open to all possibilities within the field of dietetics and beyond. In fact, one of the greatest rewards of being a CNM is the variety of tasks and lack of daily predictability. Despite the fact that nearly half of all dietitians perform some managerial duties (Cluskey, Gerald, & Gregoire, 2012), many students and entry-level RDs, report a negative view of management in dietetics (Cluskey et al., 2012).

Background

The U.S. Bureau of Labor Statistics projects that positions for RDs will grow by 20% by 2020, a rate which is 14% higher compared to other professions (Bureau of Labor Statistics, 2013). The Bureau attributes the projected job growth to the need for preventative health care involving medical nutrition therapy as well as the need to care for the nutritional needs of a

growing elderly population. According to Dr. Deborah Canter, in her 2012 Cooper Memorial Lecture at the Food and Nutrition Conference & Expo, retiring Baby Boomers age 65 and older will be a demanding, well-educated, and financially sound clientele whose desires to stay healthy and live longer will expand job opportunities in the field of dietetics (Canter, 2013).

Currently, many RDs are also classified as Baby Boomers, soon exiting the workforce due to retirement, thereby leaving more job opportunities for the “Generation X” as well as the up and coming “Millennials” (Teigen & Bradley, n.d.). Generation X refers to those individuals born between 1966 and 1980 whereas Millennials are those who were born between 1980 and 1999 (Teigen & Bradley, n.d.). Generation X workers tend to be more technologically savvy than the Baby Boomers and approach employment as a process of acquiring new skills for resume development. Generation X workers, including RDs, have experienced an unstable workplace, and therefore, may equate job security with job mobility. Dr. Deborah Canter also suggested that ever-changing shifts in the economic, social, technological, and legal climate can make the pursuit of goals similar to chasing a moving target (Canter, 2013).

The changing healthcare environment has even led the premier professional organization for food and nutrition professionals, long known as the American Dietetic Association, to adopt a new name and brand image. The newly renamed *Academy of Nutrition and Dietetics* (AND) promotes the strong nutrition science background of RDs in order to attract consumers who associate nutrition with wellness and prevention (Zanteson, 2012). Meanwhile, AND’s Council on Future Practice has established a career development guide and to some degree, explored the various routes RDs have taken in their dietetics careers.

A distinction between a job and a career in dietetics is important in order to fully undertake a purposeful examination of the career paths of dietitians. Researchers proposed a dietetics career path survey instrument and found that some RDs viewed their jobs and careers as different constructs (Shanklin, Canter, Sauer, Angell, & Chiang, 2006). Most RDs viewed their careers as something that involved more than just getting a paycheck. In effect, careers were viewed as a lifestyle that involved a mode of advancement, a specific skills set, and room for personal growth. Not surprisingly, the Academy's Career Development Guide places much emphasis on lifelong learning and professional development in order to achieve career advancement. As Elaine Ayres, MS, RD and Deputy Chief of the National Institute of Health (NIH) Clinical Center's Laboratory for Informatics, informed the AND's Council on Future Practice, "All careers are additive. Never begrudge the opportunity to pick up another skill, even if you think it's outside the box. At the end of the day, you'll find that everything you have learned along the way is useful" (Stein, 2012, p. 1535).

Traditional definitions of management focus on the organizational functions associated with the supervision of work (Cluskey et al., 2012). The true essence of management, though, is more complex and involves being able to navigate the nuances of interpersonal relationships with coworkers and employees as well being able to set and achieve future-oriented goals that move one's department or organization in a forward direction. Many RDs unknowingly use some management skills on a daily basis. For example, using effective communication skills with other members of the health care team may be necessary to "manage" patient care, or fiscal management may be necessary when trying to make decisions such as the purchase of nutrition education materials versus development of one's own nutrition education materials.

The development of management skills is also an evolving process that has been called both a disciplined, structured science as well as an intuitive art (Canter, Sauer, & Shanklin, 2012). From a practical standpoint, aspiring to be a management dietitian is logical since the *Compensation and Benefits Survey of the Dietetics Profession* consistently reveals higher compensation for RDs who have budgetary and managerial responsibilities (Academy of Nutrition and Dietetics, 2013). Furthermore, according to the most recent salary survey, CNMs are among those RDs showing the greatest percentage gains in median wage since 2009 (Ward, 2012).

The Academy encourages successful management practitioners to be positive role models, yet many RDs do not initially set out to be managers. Personally, my aspiration was to eventually become a Chief Clinical Dietitian at a large hospital, as I envisioned myself employed at a metropolitan hospital supervising a department of clinical dietitians within fifteen to twenty years. I also envisioned that I would have little, if any, involvement in food service management. Instead, seventeen years later, I became a CNM who oversees dietary staff and one per diem dietitian at a small rural hospital - and I remain very content in this position. I would not have predicted this career path for myself and tend to agree with Karen Stein, a consultant editor for the Academy's *Nutrition Care Manual*, who observed that some RDs who begin their careers with a definite sense of their career goals may end up taking alternate routes along the way (Stein, 2012).

Due to economic recession and the prevalence of downsizing, dietitians, CNMs in particular, often find themselves juggling a variety of clinical and food service responsibilities for which both management skills and a strong clinical nutrition background are critical. According to the Clinical Nutrition Management Dietetic Practice Group (DPG), CNMs

coordinate medical nutrition therapy across the entire continuum of patient care (CNM DPG, n.d.). CNMs may work in acute-care hospitals, sub-acute and long-term care settings, outpatient clinics, and home health care and are responsible for developing nutrition care programs that keep pace with current, evidence-based clinical practice.

Statement of Problem

Despite the need for CNMs to adapt to the changing health care climate and to be leaders in guiding successful patient nutrition care outcomes, there has been limited research about the career paths among these professionals. A decade ago, an American Dietetic Association (ADA) survey indicated that only 4% of food and nutrition professionals were conducting management-related research (Myers, Beyer, & Geiger, 2003). Currently, the extent of RD involvement in any type of dietetics research varies greatly from using evidence-based practice, to collaborating with researchers, to actually leading a research project and authoring an abstract or publication (Whelan, Copeland, Oladitan, Murrells, & Gandy, 2013).

In 2000, researchers asserted that dietitians, CNMs in particular, would only be successful in the changing health care environment if they possessed enough empowerment in their jobs in order to assume true leadership roles within their organizations (Mislevy, Schiller, Wolf, & Finn, 2000). Workplace empowerment was considered to be associated with four components: financial resources, support from other staff and superiors, access to information about the organization, and opportunity to achieve personal and professional goals (Mislevy et al., 2000). Members of the CNM DPG (n=178) participated in the “Conditions for Work Effectiveness Questionnaire” which measured perceived access to the four components of workplace empowerment. The study demonstrated that CNMs viewed themselves as having substantial access to all four sources of workplace empowerment, but the lowest empowerment

scores included access to financial resources, which was likely a result of many of the participants not having budgetary responsibilities. The highest workplace empowerment scores were associated with CNMs who had graduate degrees and/or who reported having strong information technology skills. Not surprisingly, the researchers concluded that in order for dietitians to increase their levels of workplace empowerment, recognition, and relevance, dietitians can seek graduate level education and also become adept at health information technology (Mislevy et al., 2000). This study, however, did not examine to what extent the CNMs were content with their jobs or if they had any intentions of leaving the profession.

More recently, members of the CNM DPG participated in a prior cross-sectional, exploratory study involving job satisfaction of management dietitians (Sauer, Canter, Shanklin, 2010). The purpose of the study was to determine the RDs' levels of career satisfaction as well their current desire to leave the profession. Results indicated that CNMs were moderately satisfied with their jobs. Interestingly, although the salary levels of the clinical nutrition managers were similar to or even higher than salaries of district directors for food service management operations, they were not as satisfied with achieving their goals for income and were not as satisfied with meeting their overall career goals (Sauer, Canter, Shanklin, 2012). The researchers identified common dissatisfiers among CNMs with career advancement, which lends credence to the need to further explore the determinants of career paths and success of CNMs (Sauer et al., 2012).

Management dietitians, who tend to be better paid are not necessarily more satisfied (Sauer et al., 2010). This research distinction is important since the Research Committee of the Academy of Nutrition and Dietetics (AND) indicated that the future of the profession is dependent on research examining the recruitment and retention of competent, well-educated

professionals (Sauer, Canter, Shanklin, 2012). This study also suggested that the intent of management dietitians to leave the profession may not necessarily be a negative indicator as the management dietitian may be moving into a higher position within the healthcare arena (Sauer et al., 2010). Often, the ability to advance in one's career likely correlates with job satisfaction. In fact, some members of the CNM DPG may no longer be practicing in a traditional clinical role but may have chosen different avenues in the healthcare arena or business world.

Due to the common practice of healthcare organizations to downsize and consolidate department leadership, a prior study explored the prevalence of multi-department management among dietitians (Canter & Nettles, 2003). Aims of the study were to identify skills, professional development, and training needed in order to be a successful multi-department manager. The researchers deemed the following attributes as vital for multi-department management; being a team player, being an effective liaison between one's departments and administration, and participating actively in organizational committees (Canter & Nettles, 2003). The respondents of the questionnaire in this study felt that having a mentor was a key factor in preparing for career advancement. The results also suggested that certain skills and attributes impact the career paths of management RDs. However, this study did not include CNMs; therefore, there is still a gap in the existing knowledge regarding CNMs who have transitioned into multi-department management or into other high level positions either in the healthcare area, education, or the business world.

Justification for Study

The exploration of factors affecting career paths of CNM's is a timely topic. Hospitals, long-term care facilities, and certain public agencies are required to employ RDs, thereby securing the need for CNMs. CNMs are also being called upon to direct their departments and

programs in an efficient, cost saving manner (Lent, 2013). At the same time, CNMs must learn to adapt their internal career development plans to the external environment. Related, career theorists and researchers have conceptualized “career life preparedness” (Lent, 2013), which refers to the ability to respond both to threats and opportunities that may affect career paths and is different from the traditional concept of career preparation in which one has obtained the necessary education to pursue a career within a chosen field.

RDs receive similar undergraduate training, and many choose to pursue master’s degrees, yet research has yet to clearly illustrate additional factors that link RDs with successful CNM practice. Career adaptability, resilience, self-efficacy, and possession of good coping skills enhance the probability of success in an unstable job market (Lent, 2013). This thesis will examine to what extent these internal characteristics are associated with career paths of CNMs while also exploring the impact of external factors on the career paths of CNM’s.

Purpose of Study

This study proposes a retrospective, descriptive baseline examination of the extrinsic and intrinsic factors affecting the career paths of CNMs. The previous findings about management practice and RDs have identified a moderate level of job satisfaction, shown to be higher than similar job satisfaction values for multiple occupations across both the private and public sector (Sauer et al., 2010). However, research has also shown that compared to other types of management RDs, CNMs are less satisfied with their positions, income, and opportunities for career advancement (Sauer et al., 2012). The purpose of this research is to gain insight about the decisions, attitudes, and beliefs that surround the career paths of CNMs. The results of this study will expand the limited body of knowledge related to career paths of CNMs.

Research Objectives

The primary objectives of this research are:

1. To determine the intrinsic factors impacting the career decisions of CNMs.
2. To determine the extrinsic factors impacting the career decisions of CNMs.
3. To gather perceptions about career choices and future aspirations among CNMs.
4. To determine the influence of leadership skills, business and financial expertise, and educational background on the career paths and success of CNMs.
5. To determine CNMs' intent to remain in their careers.

Research Questions

This study will be guided by the following research questions:

1. What are the intrinsic factors that impact the career decisions of CNMs?
2. What are the extrinsic factors that impact the career decisions of CNMs?
3. How do CNMs describe their career choices and perceptions about higher management positions within health care?
4. To what degree do leadership skills, business and financial expertise, and educational background impact the career paths and success of CNMs?
5. What are the motives and motivators for CNMs to stay in their careers?

Significance of Research

This research will contribute to the professional career guidance for RDs considering careers in clinical nutrition management. The study also serves as a precursor for future research about specific interventions to help improve the career satisfaction and advancement possibilities for CNMs. Another intent of this research is to inform the dietetics profession, educators, and

healthcare administrators about this topic, thereby assisting in achieving the AND's goal to recruit, educate, and retain competent dietitians.

Chapter 2 - Literature Review

The previous exploratory research conducted about management practice and RDs has provided a conceptual starting point for this descriptive study, but a systematic literature review would not be complete without a thorough assessment and appraisal of research relevant to the research questions. This literature review will broaden the scope of career path research to include other health care professionals such as nurse managers, and will discuss current theories related to career decision making. This review will also explain the development and use of two career pathway survey instruments and will also differentiate between intrinsic and extrinsic factors affecting an individual's career path.

Clinical Career Ladders in Nursing

Whereas the body of literature related to career paths of Clinical Nutrition Managers (CNMs) is limited, there is a significant body of existing literature on the subject of clinical career ladders in nursing. An examination of nursing career ladders is prudent given some parallels between the career paths of CNMs and those of clinical nurse managers or clinical nurse leaders (CNLs). Career ladders in nursing involve a merit based career advancement system that is tied to clinical evaluation and promotion (Sonmez & Yildirim, 2009). Studies have demonstrated that hospitals which provide nurses both with vertical and horizontal promotion opportunities as well as career development support tend to attract higher quality nurses (Nelson & Cook, 2008). Studies have also indicated that nurses who follow career ladders are more involved in professional development and that career advancement tends to be negatively correlated with intent to leave (Nelson & Cook, 2008). However, enrollment apparently is limited at the upper rungs of the career ladder, perhaps due to nurse managers who have experienced roadblocks to career advancement such as limited support from administration,

confusion about their roles within the organization, and financial concerns (Moore & Leahy, 2012).

Although CNLs are not always nurse managers, the role does emulate responsibilities for managing the continuum of care for patients within a health care facility. A 2012 qualitative study sought to describe the experiences of CNLs in clinical practice through the “CNL Transition into Practice Questionnaire” (Moore & Leahy, 2012). The study provided a baseline for identifying positive and negative factors associated with the CNL role. Respondents tended to feel that their role was positively received by other members of the health care team and that they were considered a vital resource by the physicians, a sentiment which may be shared by CNMs. In order to be successful in their future career paths, many CNL respondents felt that support from upper management and administration is vital (Moore & Leahy, 2012), a feeling which may also be shared by CNMs who essentially act as a liaison between the clinical nutrition staff and upper management.

A meta-analysis of career choice and professional socialization of nurses identified multiple factors that influence nursing career paths, including internal motivations such as altruism (Price, 2009). Interaction with senior nurse role models had an impact on career paths, yet in some studies nurses also reported that their decision to enter the profession caused distress due to disparity between career perceptions and reality (Price, 2009).

Similarly, nurse managers and CNMs have likely experienced “role ambiguity” (McCallin & Frankson, 2010, p. 321) reflected by managers expected to have strong management and organizational skills but who are also expected to be visionaries with strong leadership skills. A 2010 study suggested that charge nurse managers felt they would be more effective if they had

more business and financial expertise and information technology skills (McCallin & Frankson, 2010). These same concerns are experienced by CNMs as the majority of hospitals transition to the electronic medical record (EMR) while encouraging budgetary discretion in other areas. Certainly, caution must be exercised when using nurse managers as a comparative group to CNMs as job duties and opportunities differ, but the existing research on nursing career paths does confirm the existence of multiple factors affecting one's career choice as well as comfort level within that career.

In 2012, nursing professionals affiliated with the University of Pennsylvania put forth the model for Professional Excellence and Career Advancement in Nursing (PECAN) as a framework for identifying variables that affect a nurse's professional development and career advancement (Adeniran, Bhattacharya, & Adeniran, 2012). The PECAN model proposes that career advancement is affected by both interpersonal and intrapersonal variables. These variables are conceptualized into four main categories:

1. Human Capital Factors:

Human capital factors refer to the "collection of competencies, knowledge, and personality attributes in a person that allows them to be professionally productive" (Adeniran et al., 2012, p. 45). Human capital factors include the ability to adapt to change, self-confidence, self-motivation, and self-efficacy. Self-efficacy in particular is considered to be an essential variable in determining career success because a high level of self-efficacy determines how a person sets personal and professional goals (Adeniran et al., 2012). Self-efficacy requires a person to ask oneself, "Will my efforts and actions be worthwhile, and how will I handle any barriers I may encounter in the pursuit of my goals?"

2. Social Capital Factors:

Social capital factors refer to the “quality and quantity of interactions that result from the culmination of interpersonal relationships” (Adeniran et al., 2012, p. 46). Both nurses and RDs must function in an interdisciplinary environment, and social capital factors such as the ability to foster cooperation among team members, to effectively communicate with others, to avoid competition with team members, and to be empathetic are all essential skills in order to achieve successful patient outcomes (Adeniran et al., 2012).

3. System Factors:

System factors refer to “the positive organizational attributes in nurses’ workplaces that facilitate their engagement in the organization’s activities” (Adeniran et al., 2012, p. 47). System factors include access to opportunity, information, and resources. Support from administration is another key system factor, and research has demonstrated that nurses’ sense of workplace empowerment significantly impacted nurses’ involvement in career advancement (Adeniran et al., 2012). These findings are similar to the results found in the Ohio State CNM Workplace Empowerment Study in which a higher workplace empowerment score was associated with a higher level of career advancement and professional development (Mislevy et al., 2000).

4. External support:

External support refers to emotional and moral support that a nurse receives from friends and/or family (Adeniran et al., 2012). Research has suggested that professionals are more likely to progress in their careers if they have extensive support from family and/or friends, but one could also argue that individuals with high self-efficacy may be able to succeed without extensive support from others. Interestingly, leisure activities may also be considered an external support (Adeniran et al., 2012) that helps nurses release stress and avoid burnout.

The authors of the PECAN model astutely point out that the final outcome of all the factors on a nursing professional would be interactive (Adeniran et al., 2012). The PECAN model emphasizes the role of social interactions and the importance of personal empowerment in career decision making.

Career Decision Making

A 2010 phenomenological study determined that factors beyond personality traits, traditionally used in career counseling to help guide career paths, have a significant impact on career making decisions (Amundson, Borgen, Iaquinta, Butterfield, & Koert, 2010). The purpose of this study was to examine perceived career choices across three distinct categories.

1. Decisions Centered on Relational-Life:

Subjects identified that feeling socially connected with friends, coworkers, and/or relatives were key factors in career decision making. People who strive for a sense of connectedness at work also seek out jobs in a positive social environment (Amundson et al., 2010). Conversely, people who prioritized being more connected to their families than their jobs tended to pursue work that allowed them more time to spend with their families. Other subjects reported that role models and professional mentors significantly influenced their career decisions, which may also be a significant factor affecting the career paths of CNMs.

A similar study among RDs explored the relationship between professional involvement and job satisfaction. The study showed a significant relationship between professional involvement and job satisfaction, and many RDs reported that either having a mentor or being a mentor enhanced their professional involvement (Mortensen, Nyland, Fullmer, & Eggett, 2002).

2. Decisions Centered on Personal Meaning:

A majority (88%) of respondents in a career-decision making study identified “meaningful engagement” (Amundson et al., 2010, p. 342) as important criteria in career decision making. Meaningful engagement was defined as purposeful, intellectually stimulating work that was simultaneously aligned with one’s values and desire for personal growth. The study also indicated that feelings of autonomy were critical in career decision making.

3. Decisions Centered on Economic Realities:

Researchers described a conflict between needs and desires in which subjects expressed that due to an unstable economy, they sometimes had to make career decisions that favored financial security over passion for their careers. External environmental factors such as downsizing and few opportunities in one’s field in a particular geographical area contributed to feelings of uncertainty about the future. Indeed, the current job market for CNM’s is limited due to fewer positions in hospitals.

Career Paths and Gender

The nursing and dietetics professions are predominantly female, and studies about career decisions of females have suggested that career choices are relational in nature and that positive reinforcement transmitted by friends, family, co-workers, and employers is a vital ingredient for successful career choice and career sustainability (Silva, Ahmad, Omar, & Rasdi, 2012).

Conversely, the lack of social support or disapproval by others about one’s career is considered a barrier to career advancement.

Influence from family members is also placed at higher value in certain cultures. For example, a study of 364 Mexican women showed a positive correlation between parental influence and career aspirations (Silva et al., p. 208). Other studies have shown that gender-

related beliefs impact whether or not males or females choose to become engineering majors, and some studies have explored the concept of the glass ceiling (Smith, Caputi, & Crittenden, 2012) preventing them from career and salary advancement.

Researchers have also determined that career satisfaction is highly related to perceived career success (Smith et al., 2012). The Career Pathways Survey (CPS) was used to assess connections between two variables of success-career satisfaction and work engagement. Factors described in the survey included four beliefs related to glass ceilings: denial, resilience, acceptance, and resignation. Results of the study showed the following: 1) denial of the existence of the glass ceiling or resilience in seeking to break glass ceilings in one's own career was positively associated with career satisfaction and work engagement and 2) acceptance of the concept of the glass ceiling or resigning oneself to the concept of a glass ceiling in one's own career was negatively associated with career satisfaction and work engagement (Smith et al., 2012). The researchers surmised that optimistic or pessimistic thoughts that women have about being promoted in their careers could be determinants to career advancement. Indeed, beliefs about glass ceilings may constrain some CNMs from seeking further career advancement.

Gender bias may also play a role in the career paths of physicians involved in academic research, and a 2009 study at the University of Michigan explored the effect of gender differences on career success of physicians who had received research grants from the National Institutes of Health (NIH). The researchers purposively chose a sample of physician researchers who were known to have high levels of education, aptitude, and motivation and among whom one would not expect vast differences in career success (Jagsi, DeCastro, Griffith, et al., 2011). Career success was defined as a composite measure that encompassed success in obtaining research grants, success in receiving promotions, number of journal publications achieved,

attainment of institutional or national leadership positions, and self-perception of success. The researchers sent mail surveys to 818 physician researchers who had received NIH grants in 2000-2001, and the survey was designed to track the success of these researchers over an eight to nine year period. The survey respondents were predominantly male, but the survey did not exhibit any significant differences between gender in regard to likelihood of promotion in rank nor in retention of position. However, female respondents were significantly less likely to have received additional research funding, and the female respondents also reported publishing fewer research papers. Furthermore, female respondents were less likely to perceive themselves as successful.

The researchers speculated about possible explanations for the differences in career success between the genders. The researchers rejected the possibility that being a parent hindered success as the female respondents without children reported less career success than the married male researchers who had children (Jagsi et al., 2011). They did postulate that women may react differently to rejection of a paper or a grant in that the women may not pursue new opportunities as aggressively for fear of rejection in a competitive environment. In regard to publication of research papers, the researchers suggested that the female researchers may opt for submitting fewer papers in order to focus on quality over quantity (Jagsi et al., 2011), but the study had actually defined success in this area as having published over thirty five papers. The researchers acknowledged that gender bias, even if unconscious, may have a significant influence on women's career trajectories (Jagsi et al., 2011).

The implications of these studies on gender differences and career paths of CNMs suggest that there may be differences in the perceptions and values of male CNMs versus female CNMs.

Consideration of these differences must be taken into account when comparing the career paths of male and female CNMs.

Career Pathways of Dietitians

Researchers developed and tested a dietetics career path survey instrument. The purpose of the career pathways study was to reveal the many career paths and possibilities within the dietetics profession (Shanklin, Canter, Sauer, Angell, & Chiang, 2006). Due to the increasing complexity of the dietetics profession, the research team identified a need for dialogue between American Dietetic Association and other stakeholders about career path decisions. The research team also sought to explore catalysts and obstacles to career advancement. The study included 29 dietetics practitioners who represented a variety of areas of dietetics practice including clinical dietetics, community nutrition, management, business/consultation, education, and research (Shanklin et al., 2006). No distinction was made between food service management dietitians and CNMs in the survey, and the researchers recommended that this distinction should be made in future career pathway studies.

This same research encouraged the use of both quantitative and qualitative means of exploring career factors in a large multi-faceted profession (Shanklin et al., 2006). The final survey instrument included quantitative questions in which respondents used a Likert scale in order to rate their agreement with 18 career-related statements. Demographic information included level of education, credentials, route to RD registration, years in dietetic practice, relationship status, ethnicity, and gender. Another section included areas of employment and reasons for job changes. Qualitative questions were also used to elicit participants' opinions about other career related factors, and a portion of the subjects participated in focus group interviews which involved being asked open-ended questions about career path factors.

The researchers reported several influential factors that impact dietetics professionals (Shanklin et al, 2006). Two factors appeared to have the *most* impact on career paths of RD's:

1. Internal factors such as job satisfaction and/or personal influences such as one's spouse or family (Shanklin et al, 2006).
2. Professional, societal, and external factors such as professional involvement, networking, and opportunities for promotion. (Shanklin et al, 2006).

The researchers concluded that additional research is needed to better comprehend and support the career paths in dietetics practice. An intriguing fact mentioned by the researchers was that there was less participation from dietitians practicing in the clinical area. This may be reflective either of clinical RDs feeling greater time constraints than RDs practicing in other areas or due to clinical RDs having a lower level of interest in non-clinical research than other RDs. Certainly, this factor must be kept in mind when designing strategies to improve survey response rates from CNMs.

This career pathways study laid a foundation for this thesis by identifying the two broad categories of external and internal factors affecting career decisions, and much can be learned from this study's methodology. The acknowledgement that both extrinsic and intrinsic variables can impact one's career path corresponds with current research in the social sciences that suggests career decisions are not made entirely of one's own volition. In a 2009 review article in *Career Development Quarterly*, experts reported how extrinsic variables can directly or indirectly impact a person's ability to freely make career related decisions. Traditionally, career counselors have tended to focus primarily on one's personal goals, desires, and need for job satisfaction without consideration of the role of external, non-volitional components.

Indeed, studies have shown higher levels of job satisfaction with individuals who felt they had more control over their career paths (Duffy & Dik, 2009). Nevertheless, Duffy and Dik

point out that the unstable economy, the changing work environment, local market conditions, educational opportunities, and one's various life roles may affect people in different ways.

Duffy and Dik clearly define *internal* factors as those sources whose origin is completely within the individual whereas an *external* factor comes from either someone or something outside of the individual. Interestingly, the authors point out an argument against the impact of external factors because a person who places weight on an external factor when making career decisions is using internal mechanisms. However, for the purposes of their article, as well as for this thesis, a career path influence will be considered to be external if the source originated beyond oneself.

Furthermore, it is assumed that that all individuals respond to a unique combination of external and internal factors in career decision making, and individual responses to both intrinsic and extrinsic factors will vary.

Duffy and Dik (2009) put forth several categories of external influences including family needs and expectations, life circumstances, spiritual factors, and social service motivation. The career pathways survey for RDs suggested that personal influences such as family or spouse have a significant impact on internal factors; while Duffy and Dik concur that a person's immediate family can shape the development of a person's core values and capabilities (Duffy& Dik, 2009). Ultimately, a family's needs and expectations are viewed as external to the individual, but these external factors can also supersede a person's career path volition. The need to financially support children, to be supportive of one's spouse's career moves, or to care for an older parent may actually hamper career aspirations. On the other hand, family influence could stimulate the progress of one's career path by providing financial means, emotional support, or professional connections.

Life circumstances as described by Duffy and Dik (2009) refer to unexpected, uncontrollable situations such as the country's economy and market conditions, unforeseen health issues, and natural disasters. Sadly, the career paths of at least 200,000 people were dramatically changed by the Hurricane Katrina disaster (Duffy & Dik, 2009). When unexpected events occur, the career minded person may need to subjugate their ideal career desires in order to meet basic needs.

The career pathways survey for RDs identified societal factors as having an external influence on career paths, and many dietitians pursue the career because they desire to assist patients with their health (Shanklin et al., 2006). Most dietitians realize that more lucrative careers exist, but they are drawn by a desire to contribute to the good of others. Whereas the desire to help others likely arises from internal motivations, the actual calling to address societal needs may arise from external influences. Duffy and Dik (2009) suggested that critical life events that directly affect a person (i.e. a family member dying of diabetes) or indirect exposure that affects a person (i.e. watching a documentary on the obesity epidemic) may motivate people to respond to social needs throughout their careers. In fact, a few studies have shown that a career is viewed as more satisfying when it goes beyond meeting just the individual's desires and meets the needs of others. As an employed CNM, certain aspects of my role are tedious and not very stimulating, but I gain satisfaction knowing that my patients are benefitting from the work I do. A descriptive study of the effect of both external and internal factors on the career paths of a diverse group of CNMs will narrow the gap not only in the existing knowledge in dietetics but also address a general empirical question regarding the role of internal and external variables in career development.

Chapter 3 – Methods

Few studies are available to guide current research about Clinical Nutrition Managers (CNMs). One study conducted to assess trends in clinical dietetics found that CNMs were challenged with balancing managerial duties alongside increased demands for clinical dietitians' services (Kwon, 2001). Despite the challenges presented to CNMs, RDs continue to follow this career path, and this thesis sought to gain a better understanding of the reasons why CNMs followed a particular career path. This thesis also examined the feelings, attitudes, and beliefs CNMs have about the roles they hold or have held in clinical nutrition management.

The Dietetics Career Development Guide established by the Academy's Council on Future Practice in 2010 along with the Career Toolbox online resource provide a general framework to assist RDs with various facets of the career trajectory. According to a recent article, information specific to the various practice sectors of dietetics is necessary since the dietetics professionals of today and the future must respond to changes in the way health care is delivered due to the Affordable Care Act (Gilbride, Parks, & Dowling, 2013). Furthermore, clinical dietetics practice will be affected by the expanding scientific knowledge in the areas of nutrition science and nutritional genomics as well as by the increased use of health information technology. Meanwhile, the numbers of dietitians holding managerial and budgetary responsibilities have apparently declined over the past decade (Gilbride et al., 2013). To avert a continuation of this trend, Gilbride et al. stress that RDs must be better prepared to accept management, executive-level leadership, and business positions and that RDs must plan their career moves in a strategic fashion. In light of the needs and vision for future RD practice, and for CNMs in particular, this study provided information that can assist the Academy and others

with the recruitment and development of competent dietitians. Key recipients of this research include educators, administrators, and dietetics stakeholders in practice.

Definition of Clinical Nutrition Manager

A working definition of a Clinical Nutrition Manager was provided to guide the research plan. Prior research on management dietitians stipulated that the management dietitians must either manage a budget and/or people (Sauer, Canter, & Shanklin, 2010, 2012) and this study assumed similar qualifications. The Academy has defined CNMs as those RDs responsible not only for the integration of medical nutrition services but also for the leadership of the clinicians providing the nutrition care (Clark, Moore, Trombley, Skates, Rogalski, Schofield, et al., 2012). Furthermore, the Academy and Clinical Nutrition Management Practice Group (CNM-DPG) have developed Standards of Operating Performance (SOPP) for CNMs to guide the practice of CNMs.

A “competent” CNM is a manager with little experience who is very task-oriented and needs guidance in order to develop into a “proficient” CNM, who has developed different approaches for different problems, is able to establish long term departmental goals, and who can facilitate beneficial changes within an organization in order to advance the practice of medical nutrition therapy (Clark et al., 2012). Many CNMs are likely to be operating at the proficient level, and, thus, this research assessed CNMs’ perceptions about their level of expertise. An “expert” CNM is one who is regarded to have exceptional knowledge in either a particular focus area or as a generalist and who exemplifies leadership, vision, and a high level of autonomy (Clark et al., 2012).

This descriptive study used a mixed-mode design including qualitative and quantitative methods. The research assessed the impact of intrinsic and extrinsic factors on the career paths of CNMs.

Development of the Survey Instrument

The 2005 career pathways survey for RDs provided an excellent foundation for the proposed study (Shanklin, Canter, Sauer, Angell, & Chiang, 2006). Adaptations to the demographic section, quantitative career-related questions, and open-ended questions to elicit opinions and beliefs were used. The survey also included questions specific to CNMs and career satisfaction adapted from the work conducted by Sauer, Canter, and Shanklin (Sauer et al., 2012). Similar to previous research, CNMs who do not manage people or financial resources were excluded from the study using screening questions. Survey participants classified their perceived levels of competency, level of budget responsibility, number of RDs worked with on a routine basis, number of direct reports, and hours worked per week. Job titles were solicited as well as primary place of employment and length of time employed in current position. Likert scale questions were used to perceptions about the impact of intrinsic and extrinsic factors on their career paths. Likert-type scales are a useful survey method commonly used in the social sciences in order to define qualitative concepts in scientific, quantifiable terms. Using Likert scales strengthened the predictive validity of the study by capturing the strength of the subjects' agreement or disagreement with a statement as opposed to mere agreement or opposition.

Career theorists currently purport opposing views as to whether an individual who makes a decision based on external influences is really motivated by internal mechanisms, thus perhaps confounding the influence of any external factors (Duffy & Dik, 2009). This study assumed that

both external and internal factors influence the career paths of CNMs, and questions addressing the following factors were used in the survey instrument:

- Internal motivations –goals, desires, career aspirations
- Mentors, professional involvement
- Financial/economic realities and effect of geographical location on employment and educational opportunities
- External influences such as family expectation and needs, life circumstances, spiritual factors, social service motivation
- Importance of meaningful engagement/desire for challenging work

Prior to final survey distribution, a small expert panel comprised of career researchers and practicing CNMs reviewed the survey instrument for applicability. The panel also negotiated factors deemed to be most relevant to the study. Subsequently, approval from the Kansas State University Institutional Review Board was obtained.

Recruitment of Participants

The primary population of the study included members of the Academy's CNM DPG. A proposal was sent to the Academy's Practice and Member Interest Group Manager, requesting approval for the research (AND Policy C-17.) The AND Policy C-17 adds an element of quality control to ensure that surveys distributed to the DPG will enhance an understanding of members' needs and the development of programs to meet these needs. After minor changes were made to several demographics questions, the AND DPG/MIG Manager approved the dissemination of the survey to study participants.

The Executive Chair of the CNM DPG was contacted by the faculty advisor regarding the study. The Chair facilitated the review and approval process with the CNM DPG Executive Council. After this approval, the survey instrument went through an additional round of review

by nine Clinical Nutrition Managers who completed the survey and provided feedback. This step also assured that the online survey distribution process worked and was understood. Feedback gathered from this review did not result in the elimination of any intrinsic or extrinsic factors from the survey. An attempt was made to measure the internal consistency of the survey using Cronbach's alpha coefficient, but the reliability of a Cronbach's alpha coefficient for a 5-point rating scale is considered questionable if the sample size is less than 50 (Javali & Gudaganavar, 2011).

The final survey instrument was disseminated to all members of the CNM DPG who had an email address ($n = 2,056$). The email invitation included an introductory cover letter which explained the purpose of the research and included instructions on how to be included in a drawing for a \$50 gift card to a national retailer. Although many participants were likely to be motivated more by a desire to assist in furthering knowledge about the profession, the author of this thesis and faculty advisor concurred that offering an incentive may enhance the response rate. Those meeting the previously defined criterion for a CNM were included in the study as well as several CNMs who had moved on to new positions but who had the ability to reflect back on their careers as CNMs.

Study participants were reminded twice during a three week period to complete the survey. A survey response time longer than three weeks might have decreased the likelihood of response due to respondents not prioritizing the survey whereas a time period less than three weeks may not have been adequate for CNMs with very busy schedules. Throughout the study, appropriate measures were taken to ensure the confidentiality of the participants' responses.

Statistical Analysis

A data file of responses was created using the available version of the Statistical Package for the Social Sciences. Descriptive statistics were used to describe the demographic profile of the sample in addition to mean responses to career statements. Cronbach's alpha indices were used to measure the reliability and validity of the measures used for the intrinsic and extrinsic career factors since this is considered the most commonly used equation of reliability (Allen, 2010). Additional descriptive statistics included t-tests, and Analysis of Variance (ANOVA) procedures to compare within sample variability. Statistical significance was set at p -value $<.05$ unless otherwise indicated.

Limitations

The final sample size for this study was limited by the response rate due to the fact that CNMs often have many responsibilities and time constraints. Previous research by Sauer, Canter, and Shanklin had a 31.7% response rate from management dietitians overall, and these researchers had noted that the use of DPGs for participant selection limited their ability to extrapolate the findings to management RDs who were not members of certain DPGs. This study was similarly limited in its ability to generalize results to non-DPG members since the sample population for the career paths survey was entirely drawn from the CNM DPG.

The topic of careers may be sensitive to certain professionals and may inhibit responses, but the participants were assured that their responses were completely confidential. This assurance was reiterated to the participants throughout the process. Addressing the topic of career paths may also be a sensitive topic for professionals who have not achieved their career aspirations, and these CNMs may simply have chosen not to participate in the study. Thus, a confounding variable could be that CNMs who felt successful were more likely to fill out the survey, and therefore a limitation of the study could be that the sample did not truly represent the attitudes and beliefs of the entire CNM population.

The ability to generalize results to all CNMs was also limited by the fact that there is such a broad spectrum of job duties held by CNMs, but the categorization of job titles in the demographics section did allow for interpretation of trends in opinions. Also, by clearly defining a CNM as an RD who oversees integration of medical nutrition therapy in a health care organization and who manages people, resources, or both, the study was able to generalize results to those who share these core responsibilities.

Some CNMs may be in the early phases of his or her management career and are likely to have different perspectives than CNMs approaching the end of their career. Prior research with CNMs controlled for retirement by eliminating responses to certain questions pertaining to intent to leave the career, and this study also controlled for the retirement variable, but had few respondents in this category from which to compare.

The study was also limited by the fact that an unstable economy and an uncertain future may alter the perceptions of CNMs at this discrete moment in time. However, this study supports the need for greater attention and research related to career paths of CNMs.

Chapter 4 – The Impact of Intrinsic and Extrinsic Factors on the Career Paths of Clinical Nutrition Managers

Introduction

Registered Dietitians (RDs) attribute their career success to a variety of factors, including formal education, influential mentors, specific skill sets, flexibility, and having a supportive spouse. RDs with strong management skills are increasingly in demand in order to coordinate the delivery of nutrition care in a cost effective manner. Clinical Nutrition Managers (CNMs) specifically coordinate medical nutrition therapy across the continuum of patient care-acute and long-term care settings, outpatient clinics, and home health care and are responsible for developing nutrition care programs that keep pace with current, evidence-based clinical practice. Despite the need for CNMs to adapt to the changing health care climate and to provide leadership for guiding successful patient nutrition care outcomes, there has been limited research about the career paths among these professionals. Furthermore, the Research Committee of the Academy of Nutrition and Dietetics (AND) has indicated that the future of the profession is dependent on research about the recruitment and retention of competent, well-educated professionals, including CNMs (Sauer, Canter, & Shanklin, 2012).

Prior research with management dietitians in the early 2000's explored workplace empowerment and multi-department management, while in 2006 researchers determined that both internal factors and external influences, such as societal and environmental factors, could impact career paths of RDs (Shanklin, Canter, Sauer, Angell, & Chiang, 2006). More recently Sauer et al. (2012) identified common dissatisfiers among CNMs with career advancement. CNMs were found to have lower levels of job satisfaction in regard to pay and nature of the work compared to other management dietitians, yet national salary surveys and labor statistics indicate a positive job outlook and an increase in wages for CNMs that has outpaced inflation. The

identification of common dissatisfiers among CNMs lends credence to the need to further explore the determinants of career paths and success of CNMs' career decisions.

An examination of clinical career ladders in nursing indicated that career advancement is impacted by internal and external variables (Adeniran, Bhattacharya, & Adeniran, 2012) while career theorists have also determined that factors beyond personality traits, traditionally used in career counseling to guide career paths, have a significant impact on career related decisions (Amundson, Borgen, Iaquina, Butterfield, & Koert, 2010).

Prior to this study, CNMs had never been studied yet as a subset of dietitians in relation to career path determinants. Therefore, the purpose of this study was to examine the perceptions, attitudes, and beliefs of CNMs regarding the effects of both intrinsic and extrinsic factors on their career paths. The study also sought to gather current opinions regarding career satisfaction among CNMs. The results of this study will narrow the gap in the existing knowledge base in dietetics and also help to address a general empirical question regarding the role of internal and external variables in career development. Furthermore, as a result of this study, CNMs will have a validated career path survey specific to their area of practice. The research will also contribute to professional career guidance for RDs considering careers in clinical nutrition management and will inform the dietetics profession, educators, and health care administrators about this topic.

Methodology

Population and Sample

The population for this study included members of the AND's CNM Dietetic Practice Group (DPG). The CNM DPG is a resource for CNMs who manage clinical nutrition programs across the continuum of health care and for dietitians interested in becoming CNMs. After the AND's DPG Manager approved the research protocol (per AND Policy C-17), the CNM DPG

Executive Committee approved the participation of the DPG in this study's survey process. Approximately 2,056 members of the DPG who had email addresses were sent the survey.

The researchers defined CNMs to be management dietitians who coordinated medical nutrition therapy and who managed personnel, financial resources, or both. Those who did not report responsibility for either criterion were excluded from the data analysis with a few exceptions. Several CNMs who had moved on to other positions but who were able to reflect on their career as a CNM were included in the data analysis.

Survey Instrument

The survey instrument for this research was developed using themes and established factors found in prior career related research in the fields of nursing as well as dietetics. The survey instrument also incorporated concepts related to current theories in career decision making and included five specific sections: intrinsic factors, personal external influences, environmental and societal factors, career satisfaction measures, and demographics.

The first section of the instrument included questions about the impact of intrinsic factors on career decision making. Intrinsic factors include personal characteristics such as self-confidence, resilience, leadership skills. Likert scales were used to measure the strength of a respondents' agreement regarding the impact of a particular factor. The second section measured to what degree external influences such as support from other health care team members, access to opportunities in the workplace, or family needs had exerted a positive or negative impact on career paths. The third section examined the effects on career paths of life circumstances and environmental factors that are beyond one's control.

This study used a mixed mode design of both quantitative and qualitative questions. After the first section, respondents were asked, "*What intrinsic factors have ADVANCED your career as a CNM the most?*" as well as, "*What intrinsic factors have LIMITED your career as a CNM*

the most?” After the third section, respondents were then asked the same questions in relation to extrinsic factors. The fourth section about career satisfaction included questions adapted from the prior research conducted by Sauer, Canter, and Shanklin (2012) as well as a question about the relatively new concept of clinical career ladders.

Finally, the demographics section allowed for respondents to classify their current level of professional skills as either competent, proficient, or expert based on the AND’s Standards of Operating Performance for CNMs. The demographics section also included questions adapted from prior research in regard to job titles, budget responsibility, years of experience as a CNM, number of employees supervised, and income level.

Prior to data collection, an expert panel of nine RDs, including CNMs and researchers, reviewed the survey instrument to assess relevance of each factor to the study. No factors were excluded after expert panel review, and approval from the Kansas State Institutional Review Board was obtained prior to data collection.

Data Collection

The final survey instrument was an online survey that was sent to members of the CNM DPG via an email blast from the CNM executive chairperson. The survey invitation included a cover letter describing the scope and significance of the research and instructions on how to be included in a \$50 gift drawing to a national retailer. Study participants were reminded twice in a three week period to complete the survey.

According to the CNM executive chairperson, the actual number of CNMs in the CNM DPG group is unknown due to a low response rate on prior membership surveys. Therefore, a true response rate to the survey could not be ascertained nor estimated. This study yielded 146 usable surveys.

Data Analysis

A data file of responses was created using IBM's Statistical Package for the Social Sciences Version 22. Descriptive statistics were used to describe the demographic profile of the sample in addition to mean responses to career statements. Cronbach's alpha indices were used to measure the reliability and validity of the final survey instrument. Additional descriptive statistics included t-tests, and Analysis of Variance (ANOVA) procedures to compare within sample variability. Statistical significance was set at p -value $<.05$ unless otherwise indicated.

Results

Demographic Profile of Respondents

The CNM DPG disseminated the survey to 2,056 members of the DPG who had email addresses, and the survey resulted in 146 usable surveys. The demographic profile of the respondents is shown in Table 4.1.

The most recent and comprehensive assessment of the demographic characteristics of RDs as a whole is the AND's *Compensation and Benefits Survey 2013*, which confirmed that the majority of RDs are female (95%) and Caucasian (91%) (Academy of Nutrition and Dietetics, 2013). Similarly, the participants in this study of CNMs were predominantly female (95.9%) and Caucasian (91.1%). Approximately 60% of the CNMs were married. The median age of all RDs is 46; while the majority of CNMs in the study were slightly older. About 63% of respondents were age 50 or older, which is not surprising considering that over half (51.4%) of the CNMs in the study had over 25 years of experience in the field of dietetics.

The profession has increasingly encouraged RDs to seek advanced degrees, a factor which has been shown to enhance workplace empowerment (Mislevy et al., 2000). Currently, over half of all RDs have graduate degrees (AND, 2013), and the CNMs in this study exhibited

an even larger percentage having graduate degrees (64.4%), with some holding PhDs. Based on the AND's Standards of Operating Performance for CNMs, a majority of CNMs in the study (45.2%) rated themselves as "proficient" in that they have had enough experience as a CNM in order to facilitate the advancement of medical nutrition therapy in their facilities. A significant percentage (37.7%) of the CNMs, however, ranked themselves in the "expert" category, implying that these CNMs felt that they had achieved the highest level of knowledge and autonomy as a CNM.

In the context of job titles, dietetics is a very diverse profession with at least six identifiable practice sectors (Gilbride, Parks, & Dowling, 2013). The AND 2013 Survey designated 59 different RD job descriptions. According to the AND 2013 survey, only 24% of RDs worked in hospitals whereas a distinct majority (88.4%) of the CNMs in this study worked in either hospitals or medical centers. While most of the CNMs worked for self-operated organizations (60.3%), over one third worked for contract management companies. The most common job titles were Clinical Nutrition Manager followed by Director of Dietary/Food and Nutrition Services and Chief Clinical Dietitian. In recent years, the title "Clinical Nutrition Team Leader" has emerged, and several CNMs indicated having this job title.

In general, the majority of RDs (75%) in the AND 2013 Survey did not manage budgets. In this CNM study, however, not only did 58.1% indicate that they have budget responsibility, but 22.6% manage budgets of \$1 million or more. Likewise, most RDs do not supervise any staff (Academy of Nutrition and Dietetics, 2013), but in this study up to 61% managed 1-19 employees, with an additional 33.6% supervising 20 or more staff.

Indeed, AND salary surveys indicated that median wages tend to increase with the degree of supervisory responsibility, and the majority of CNMs in this study (47.9%) reported salaries between \$70,000-\$99,999, figures which are significantly above the average CNM salary range of \$60,000-\$80,000 described in the 2013 AND survey. The sample represented a cross section of all geographical areas of the United States with almost equal numbers of CNMs reporting from the Northeast, Southeast, and the West. There was a somewhat higher concentration of respondents from the Midwest (30.1%), and one respondent was employed overseas.

Intrinsic Factors

The first section of the survey examined 17 intrinsic factors that are essentially under one's control and are internally focused. Means and standard deviations were analyzed to determine the degree of influence each factor had on a respondent's career path as a CNM (Table 4.2). In addition, 5-point Likert scales in this section were anchored by "*Not at all influential*" (1) to "*Extremely influential*" (5).

Most respondents ranked self-motivation as the intrinsic factor having the most influence on their career paths (M= 4.47, SD= 0.79) (Table 4.2). Self-motivation is an important internal mechanism that has been previously identified in nursing career literature as a "human capital factor" (Adeniran et al., 2012) along with self-efficacy (M=4.12, SD= 0.84) and self-confidence (M=4.00, SD= 0.92), which were also shown to have a positive effect in this study. Career adaptability (M=4.12, SD=0.84) was shown to be a very influential intrinsic factor, which parallels the current career theory concept of career life preparedness. Career life preparedness theories, in fact, assert that those who are more likely to be successful in their careers are people who possess good coping skills (M=4.08, SD=0.85), self-efficacy, career adaptability skills, and resilience (M=4.22, SD=0.84) (Lent, 2013). The relatively new concept of emotional intelligence

($M=4.12$, $SD=0.84$) was considered to be nearly equally influential as self-efficacy and career adaptability. Emotional intelligence actually encompasses a group of abilities, including self-motivation, self-control of emotions, and the capacity to successfully engage with others (Fox, 2013).

Communication skills ($M=4.38$, $SD=0.80$), being a team player ($M=4.38$, $SD=0.98$), and leadership skills ($M=4.33$, $SD=.88$) ranked among the top four influential intrinsic factors after self-motivation (Table 4.2). Interestingly, these are the “social capital” (Adeniran et al., 2012) skills that allow both nurses and RDs to function well in an interdisciplinary environment in order to achieve successful patient outcomes. Prior research regarding management dietitians who managed multiple departments has determined that being a team player who can communicate effectively as a liaison between departments and administration is a key factor in career advancement (Canter & Nettles, 2003). Leadership skills have also attracted the attention of both the AND and CNM DPG over the past few years, and currently leadership is viewed not so much as an exertion of power but rather as having the ability to *effect* positive change within an organization (Pyper, 2013).

Although a review of nursing career literature had suggested that nurse managers felt that having more business knowledge and financial expertise would enhance their chances of career advancement (McCallin and Frankson, 2010), these factors were ranked as close to neutral for the CNMs in this study ($M=3.26$, $SD=1.19$; $M=3.10$, $SD=1.21$) respectively.

A recurrent theme in career theory literature over the past decade has been the importance of seeking work that is purposeful, is emotionally and intellectually stimulating, and that is aligned with one’s goals and values (Amundson, Borgen, Iaquina, Butterfield, & Koert, 2010). Not surprisingly, most of the CNMs ranked importance of meaningful engagement ($M=4.01$,

SD=0.99) as being very influential in their career paths. The concept of meaningful engagement actually echoes prior dietetics career related research in which many RDs viewed careers as a definite lifestyle that required specific skills and allowed room for advancement and personal growth (Shanklin, Canter, Sauer, Angell, & Chiang, 2006).

External Influences

The second section of the survey examined 13 personal external influences that are considered beyond one's control and are externally focused. Means and standard deviations were analyzed to determine to what degree external influences such as support from peers, mentors, or upper management, access to resources and/or opportunities in the workplace, and family needs had exerted a positive or negative impact on CNM career paths (Table 4.3). A 5-point Likert scale was used and anchored by “*Extremely Negative Impact*” (1) to “*Extremely Positive Impact*” (5).

Most respondents felt that “Support from (or Acceptance by) Other Health Care Team Members” (M=4.35, SD=0.75) and “Support from Upper Management/Administration/Employers” (M=4.34, SD=0.92) had the most positive impacts on career paths. Research regarding the role of Clinical Nurse Leaders (CNLs) had previously shown that support from upper management was crucial to their career success and that being respected by other members of the health care team was also a key factor in career advancement (Moore & Leahy, 2012). According to the Professional Excellence and Career Advancement Framework (PECAN) for nursing career development, support from superiors is considered a “system factor” within an organization (Adeniran et al., 2012). In this context, this may be vital to CNMs who must act as a bridge between subordinates and upper management. Autonomy (M=4.24, SD=0.80) was ranked as having the third most positive impact on career paths, supporting Admundson's 2010 findings regarding career decision making and the importance of

meaningful engagement in the role of career decision making. The existence of autonomy in one's workplace is an *extrinsic* factor that is highly valued by many professionals and is considered to be necessary for a healthy work environment (Adeniran et al., 2012).

The CNMs in this study found that sources of workplace empowerment such as Access to Information in the Workplace ($M=4.06$, $SD=0.83$), Access to Resources in the Workplace ($M=3.94$, $SD=0.94$), and Access to Promotion Opportunities ($M=3.78$, $SD= 1.08$) had a somewhat positive impact on career paths. These results support findings of prior research related to CNMs and workplace empowerment in which CNMs viewed themselves as having substantial, albeit not extremely high, access to components associated with workplace empowerment (Mislevy, Schiller, Wolf, & Finn, 2000).

Many career researchers in various fields have concluded that professionals with extensive emotional and moral support from family members are more likely to succeed in their careers, and the CNMs in this study placed significant value on the positive impact of Support from Family ($M=4.16$, $SD=0.88$) and lesser value on the somewhat positive influence of Support from Friends ($M=3.62$, $SD=0.76$) (Table 4.3). While support from family may enhance career advancement by bolstering self-confidence and empowerment, family needs and expectations may constrain career paths, and the AND 2013 salary survey noted that some RDs had left the profession, at least temporarily, due to family needs. This study demonstrated mainly a neutral effect of Family Needs and Expectations ($M=3.12$, $SD=0.98$) on CNM career paths.

The influence of mentors and role models in career decision making has been the subject of debate of career-related research. Some professionals will actively seek out mentors who will assist them in choosing activities to enhance skill development while others simply meet role models along their career paths who provide encouragement and support but who do not directly

affect their career advancement. Having a Mentor ($M=3.66$, $SD=0.90$) and Involvement in Professional Organizations ($M=3.70$, $SD=0.85$) had a slightly positive impact on CNM career paths in this study. The respondents in this study were mainly female, and research has also suggested that career decision making for females tends to be more relational in nature and hence more affected by positive reinforcement given by family, friends, and professional associates (Silva, Ahmad, Omar, & Rasdi, 2012).

In regard to the concept of the glass ceiling as a barrier that prevents females or minorities from career and salary advancement, the Australian 2012 Career Pathway Survey had implied that having negative thoughts in regard to glass ceilings could inhibit career advancement whereas denial of the glass ceiling or resistance to the glass ceiling might promote career advancement (Smith et al., 2012). The results of the CNM study suggest that perceived glass ceilings had between a slightly negative or a neutral effect ($M=2.80$, $SD=0.73$).

Environmental and Societal Factors

The third section addressed another category of extrinsic factors, including environmental and societal factors. Certainly, life circumstances and unforeseen external events can affect career decision making in both beneficial and detrimental ways. This section explored to what extent seven environmental and societal factors had exerted either a positive or negative effect on career paths. Means and standard deviations were calculated for each factor (Table 4.4), and the 5-point Likert scale for this section ranged from “*Extremely Negative*” (1) to “*Extremely Positive*” (5).

Many RDs chose to enter the profession of dietetics not because it is highly lucrative or glamorous but because they have a passion for nutrition and a desire to help others. While none of the factors in this category seemed to have an overwhelmingly positive effect on career paths, Societal Health Needs/Social Service Motivation ($M=3.17$, $SD=0.59$) ranked the highest on the

positive side of this category. The desire to help others and to pursue a career that benefits the common good is actually an intrinsic mechanism, which was measured in the first section of the survey as Altruistic Desires ($M= 3.50$, $SD=1.07$). However, career researchers Duffy and Dik (2009) have suggested that the actual calling to meet societal health needs may arise from an “external pull” (Duffy & Dik, 2009) that motivates a person to serve others.

The effects of both geographical location ($M=3.15$, $SD=0.94$) and relocation ($M=3.13$, $SD=0.76$) overall had a slightly better than neutral effect. Some CNMs may have experienced better job opportunities in a new location while others may have had some difficulty finding desirable positions yet had to relocate due to a spouse’s job. As expected, Natural Disasters ($M=2.98$, $SD=0.37$) had a neutral effect. While a major natural disaster such as a hurricane could have far reaching consequences for many people’s careers, natural disasters are likely not common enough to have either a positive or a negative impact on the career paths of a large group of people across the nation.

Unfortunately, though, some people from time to time do experience unforeseen health situations that affect either themselves ($M=2.91$, $SD=0.49$) or family members ($M=2.84$, $SD=0.47$), and these life circumstances can exert a somewhat negative affect as they affect the volition of one’s career decisions at a given point in time. Having an even more negative impact on career paths were the Status of the Local or National Economy ($M= 2.79$, $SD=0.81$) and Downsizing ($M=2.69$, $SD=0.80$). When the economy affects market conditions and downsizing leads to fewer job opportunities in a particular area, CNMs may be forced to make career decisions that are more centered on economic realities and may also feel uncertain about the future of their careers.

Career Satisfaction

The fourth section of the survey posed five questions regarding career satisfaction that had been adapted from the prior career satisfaction research conducted by Sauer, Canter, and Shanklin (2012). Prior research had identified common dissatisfiers among CNMs such as income and achievement of overall career goals when compared to other types of management dietitians (Sauer, Canter, & Shanklin, 2012). The current study focused specifically on CNMs and called on these professionals to reflect on current feelings of career satisfaction. Table 4.5 presents the means and standard deviations for each question response, and the 5-point Likert scales measured the strength of each respondent's agreement or disagreement with each statement.

Generally, CNMs did not strongly agree with any statement, but agreed that they were satisfied with their career success ($M=4.16$, $SD=0.87$) and with progress in achieving overall career goals ($M=4.12$, $SD=0.85$). Similar to results of prior research, the CNMs were moderately satisfied with progress toward development of new skills ($M=3.90$, $SD=0.92$).

The past five years have seen the proliferation of health information technology as well as a decrease in the overall number of RDs in management positions. The results of this study suggest that CNMs certainly have an awareness of the need to develop new skills in order to be competitive, but progress toward the goal of developing new skills may be hindered by other intrinsic (ie, a lack of confidence) and extrinsic factors (other demands on their time).

Despite the fact that the majority of study respondents indicated having incomes significantly above the average CNM salary level based on the 2013 AND salary survey, the CNMs were not very satisfied with meeting income goals ($M=3.54$, $SD=1.16$). Previous research has suggested that the actual income amount may not be the true problem, but that perceptions regarding income may be related to equity of pay and fairness (Sauer et al., 2012) when

comparing one's income to that of others in their organizations or in their field. Future research could examine specifically what rationale CNMs use to base their income goals. Although the nursing profession has employed clinical career ladders for a long time in regard to both vertical and horizontal promotion, the concept of clinical ladders for CNMs is a new concept that has been studied by some CNMs but has not been employed in most facilities. Therefore, the feelings of the CNMs in this study in regard to satisfaction with CNM career ladders ($M=2.93$, $SD=1.13$) imply that most of the CNMs were less than satisfied with the current clinical career ladder available to them or had not encountered career ladders at all.

Finally, four open-ended questions were posed to the respondents in order to elicit opinions regarding positive and negative impacts of intrinsic and extrinsic factors on their career paths. Respondents were asked which intrinsic factors (either those listed in the survey or additional intrinsic factors) had *advanced* their careers the most and which had *limited* their careers the most. Similarly, respondents were asked which extrinsic factors, including both personal external influences as well as societal/environmental factors, had limited and advanced their careers the most. The vast majority of survey respondents completed the qualitative questions, and distinct themes emerged which further affirmed the quantitative results of this study.

Intrinsic Factors Advancing CNM Career Paths

Leadership skills, self-motivation, and career adaptability were the most commonly mentioned intrinsic factors to have advanced CNMs' careers the most. In fact, self-motivation and leadership skills were both listed 43 times as having the most positive impact on career paths, and career adaptability followed closely behind with 42 mentions. Current experts on leadership concur that successful, effective leaders are those who are able to "collaborate rather than control" (Pyper, 2013), who have a shared and clear vision of what needs to be

accomplished, who inspire others to achieve goals, and who take personal responsibility for their own development of professional skills. Indeed, in commenting upon the influence of leadership skills on career paths, several CNMs pointed out the importance of having the ability to recognize other employees' strengths and weaknesses and to be proactive by giving staff the tools and direction that they need to succeed.

Although leadership skills had been ranked as less influential than communication skills and being a team player in the quantitative analysis, the comments provided by CNMs suggested that career success may be an additive effect of related intrinsic factors. Certainly, a good leader must be able to communicate effectively to peers, subordinates, and superiors, and one CNM suggested that despite having clinical knowledge and business expertise, one is not likely to advance in one's career as a CNM without having excellent communication skills. Another CNM suggested that a way for CNMs to develop leadership skills is to become a team leader while yet another stated that being a team player involves sharing knowledge with others. These sentiments reiterate the findings from nursing career literature in that in order to be an effective leader; one must try to avoid competition with others when trying to foster cooperation and partnership toward successful patient outcomes.

Self-motivation had previously been identified quantitatively as the intrinsic factor having the most positive impact on career paths, and the results of the qualitative analysis paralleled quantitative results in regard to this factor. Self-motivation is, in fact, considered to be one of the core components of the concept of emotional intelligence, which was described in a recent AND article as being a blend of intrapersonal and interpersonal factors that contribute to success in the workplace (Fox, 2013). Some CNMs used other terms to describe self-motivation such as being "self-directed" and having a strong "drive to challenge myself and grow in my

career.” Some CNMs mentioned that both self-motivation and self-efficacy most advanced their careers; self-efficacy, as noted in the review of nursing literature, is a key intrinsic mechanism that determines the degree of initiative a person will take in order to follow a course of action. One CNM astutely pointed out that due to the nature of clinical nutrition management work, CNMs often work alone and therefore must be able to work well independently and be very proactive in taking the necessary steps to grow in one’s career.

Sometimes CNMs encounter barriers to career growth, and not surprisingly, many CNMs identified career adaptability, which also includes components of resilience and being flexible when change occurs, as an intrinsic factor that allowed them to manage barriers in order to move forward in their careers. Current career theory asserts that career success is related to being willing to learn new skills and to be able to continually adapt to a changing work environment. (Stoltz, Wolff, Monroe, Faris, & Mazahreh, 2013). Several CNMs mentioned that being a lifelong learner had advanced their careers, and one CNM aptly described career barriers simply as “diversions in a river of progress.”

Intrinsic Factors Limiting CNM Career Paths

Despite the fact that the majority of CNMs in this study managed budgets, with 22.6% managing budgets of \$1 million or more, the majority of CNMs identified lack of sufficient financial expertise and business knowledge as two of the top three intrinsic factors that have limited their career paths. Prior research among dietetic internship directors had advised that financial management skills are critical for all areas of dietetics practice (McKnight, Dundas, & Girvan, 2002) yet curricula for both undergraduate and graduate dietetics students often do not require any financial management courses. Some of the CNMs in the study expressed trepidation and lack of confidence in working with numbers while others expressed disinterest in dealing with budgetary responsibilities. Related, the author of this thesis had a similar lack of confidence

in her financial management abilities, which inspired her to take a graduate level accounting course despite being advised that such a course was not required for her program of study.

As mentioned in the quantitative results discussion, CNMs are indeed aware of the value and the need to develop new skills but may lack confidence in their abilities to learn new job skills. A strong recurring theme expressed in the qualitative section was that CNMs' own self-perceptions, lack of confidence, shyness, self-doubt, and even worrying hindered them from being more assertive in the workplace and from learning the skills required for higher positions within their organizations. Both the nursing and dietetics literature concur that a person's self-perception and degree of self-confidence will determine the amount of effort a person will take in pursuing professional goals even in the presence of barriers (Adeniran et al., 2012) and that self-confidence is a strength that can be learned with experience as long as a person has a desire to develop it and seeks out challenging, new experiences (Fox, 2013).

On the other hand, some CNMs choose not to seek out new challenges because they have achieved a certain degree of comfort or complacency in their positions. Several CNMs described themselves as "people pleasers" who preferred to stay in the same position rather than risk dissension by trying to move ahead in their careers. One CNM felt that career advancement actually progressed when he/she was able to let go of a desire to be liked. One CNM expressed frustration about "being the low man on the totem pole" but admitted that his/her own self-perceptions had limited attempts at communicating with upper management.

Although possession of leadership skills was observed to be a crucial factor in advancing CNM career paths, only a few CNMs mentioned that insufficient leadership skills inhibited their career paths. While this may appear to be a paradox, a CNM did note that having self-confidence encompasses many other intrinsic factors, including having leadership skills, and

astutely observed, “ If you believe in yourself and have the ability to portray that confidence to others , you can gain the strength needed to move forward professionally and get the job done.”

Meanwhile, the CNM DPG has wisely included in its 2015-2017 Strategic Plan a goal to provide member opportunities to develop and enhance skills required to be successful as leaders (Y. H. Kim, electronic communication, February 10, 2014).

Extrinsic Factors Advancing CNM Career Paths

The proposal for this thesis had established that external influences certainly influence one’s ability to make unabated career choices. Current career development theories tend to align with the concept that, in order to survive in today’s changing economic and technological climate, professionals must try to overcome their weaknesses and develop their strengths in order to deal with the career threats and career opportunities that come their way. The results of the qualitative discussion indicated that for many CNMs (34), geographical location, relocation, and the ability to be mobile actually had very positive impacts on their career paths. CNMs who were more willing to move to either metropolitan areas or to rural areas in need of a CNM found more access to promotion opportunities in clinical nutrition management. One CNM admitted that moving to a new area was very difficult at first but that the move opened up “new doors” that he/she may have missed in the previous job.

Surprisingly, downsizing of organizations had a positive effect on the career paths of some CNMs. Downsizing forced some CNMs to develop new skills in order to qualify for positions elsewhere whereas others found that downsizing gave them the chance to move into a directorship position. Conversely, some CNMs reported that their facilities had expanded, thereby creating new promotion opportunities. Willingness to take on new responsibilities, a facet of career adaptability, also contributed to CNMs being promoted to higher positions.

Equally important to the CNMs in regard to extrinsic factors was support from upper management/employers/administration. Certainly, there is likely a direct relationship between support from one's superiors and access to resources, information, and promotion opportunities in the workplace as has been suggested by research related to workplace empowerment (Mislevy, Schiller, Wolf, & Finn, 2000). Support from higher administration is considered a "system factor" (Adeniran et al., 2012) that contributes to a healthy work environment and that supports career advancement. A few CNMs stated that they were pleased that they were not "micromanaged" by their superiors; they felt that their superiors trusted their professional capabilities and gave them positive feedback. Recent research has also suggested that support from management or supervisors may contribute significantly to job satisfaction (Howells, Sauer, Shanklin, 2014).

Research regarding career decisions made by females has often indicated that female professionals place great emphasis on receiving support and encouragement from family and co-workers (Silva, Ahmad, Omar, & Rasdi, 2012). Qualitative studies of how people handle career transitions have indicated that individuals do better with career transitions if they have strong family support (Stolz et al., 2013). The CNMs in this study, who were predominantly female, often mentioned the importance of support from family in the qualitative responses but did not elaborate on this topic beyond one statement of appreciation related to a spouse caring for the couple's four children. Several CNMs, however, did elaborate on the importance of support from other health care team members in that support from the physicians was particularly important. In most health care organizations, the opinions of physicians are highly valued by administration, and if a doctor provides positive feedback to administration regarding a CNM, more weight will be placed on the doctor's opinion than on that of lesser health care team members. A few CNMs

attributed their career success to luck, happenstance, “being in the right place at the right time,” but such beliefs discount the notion that a CNM is likely to be promoted based on knowledge, skills, and support from upper management.

How a person responds to external factors may be dependent on one’s internal mechanisms and may determine whether or not an extrinsic factor has a positive or negative influence on career paths. One CNM’s hospital had suffered a significant tornado, but the CNM felt that learning how to handle such a disaster helped build his/her self-confidence and leadership skills. Sometimes a natural disaster or another critical life event can inspire people to respond to a societal need and work for the benefit of others. Several CNMs identified that social service motivation had helped advance their careers. Although these CNMs did not specifically explain how social service motivation exerted a positive influence on their career paths, one could speculate that many CNMs find meaningful engagement and a sense of purpose in their work by helping to address societal health needs.

Extrinsic Factors Limiting Career Paths

This thesis has previously acknowledged that while support from family can enhance one’s career by providing moral support, financial means, and perhaps professional connections, family needs and economic realities can force a person to subjugate career aspirations at least for a period of time. In this qualitative section, CNMs overwhelmingly reported that family needs and expectations combined with unforeseen health problems of self or family had limited career paths. The term “work life balance” was mentioned several times in that CNMs were trying to achieve a balance between raising a family and pursuing career goals. One CNM was a single parent; several others had cared for an ill spouse or elderly parents. Two CNMs pointed out that they made a distinct choice to prioritize family over career, which is certainly admirable and reflective of a degree of altruism. Although altruistic desires had just been ranked a bit above

neutral ($M=3.5$, $SD=1.07$) in the quantitative analysis, one can safely assume that most RDs have empathy and a desire to care for others-their families as well as their patients. In fact, a recent AND article mentioned that the value of empathy simply cannot be underestimated as an RD must be able to understand the emotional state of patients and colleagues (Fox, 2013).

Numerous (35) CNMs reported that the status of the local or national economy and downsizing had negatively impacted their career paths by limiting access to promotion opportunities. A few CNMs observed that nurse managers in their organizations had opportunities for advancement whereas there were no higher positions available for CNMs. Indeed, due to the prevalence of career ladders in nursing, there are opportunities for either vertical or horizontal promotion for nurses within health care organizations (Moore & Leahy, 2012) yet for CNMs the concept of clinical career ladders is fairly new. Due to the status of the economy and budget cuts within organizations, some CNMs are experiencing a salary freeze despite having taking on extra responsibilities. Limited access to job opportunities combined with an unstable economy has been shown in phenomenological studies to lead to feelings of anxiety about the future (Amundson, Borgen, Iaquina, Butterfield, & Koert, 2010), and feelings of uncertainty were evident in some responses in which CNMs stated they were concerned about their futures and felt distrustful of upper management. One CNM, though, decided to be proactive rather than reactive and agreed to help on a hospital task force that was not related to nutrition. In this era of downsizing and an uncertain economic climate, change management professionals are, in fact, advising people to try to connect with people outside one's own department but within the same organization in order to improve promotion opportunities (Peregrin, 2012).

Research related to female perceptions of glass ceilings has suggested that negative thoughts in regard to glass ceilings may inhibit career advancement, but very few CNMs mentioned glass ceilings as being barriers to career advancement. One male CNM did mention that he perceived a “reverse glass ceiling” in that being a male RD has limited his career opportunities in a female dominated profession. Regardless of gender, some CNMs noted an inequity of pay and a lack of role identity within their organizations. The author of this thesis has also experienced role ambiguity in that upper management is not aware of all of the duties and responsibilities associated with the CNM position.

Lack of role identity, also known as role ambiguity, has been shown to be a cause of stress among nurse managers because the diversity of duties is often more broad than the nurse manager’s own job description (McCallin & Frankson, 2009). Similarly, CNMs often have both clinical and food service management responsibilities as well as time constraints. One CNM in the study expressed that he/she felt that more could and should be done clinically for patients that his/her time was limited. The author of this thesis can empathize because there are long term clinical projects at her facility that have to be delayed in order to meet the daily unpredictable needs of the dietary department. As time and money are likely to continue to be constraints for CNMs in the future, CNMs must focus on strengthening intrinsic mechanisms such as resilience, career adaptability, and emotional intelligence in order to be prepared to cope with the external factors that present challenges within their careers.

Limitations

The response rate for this study and final sample size were limited due to both the type of methods used and to the fact that CNMs often have many responsibilities and time constraints. Many CNMs belong to a variety of local, district, state, and national professional organizations

and likely receive email communications from one or several organizations on a daily basis. The survey invitation was sent via email and may have been overlooked by busy CNMs, but if cost had not been prohibitive, direct mail to all CNM DPG members with an invitation to participate in the survey via the online link may have attracted more attention. In regard to an incentive to participate, the cover letter that was sent via email did indicate that participants would have a chance to enter a drawing for a \$50 gift card but did not specify that five cards, rather than just one, would be awarded. However, the extent of impact of the type and amount of incentive is questionable as many CNMs who participated actually expressed their sincere interest in the subject matter of the study and a desire to learn the results, which suggests that they were motivated by a desire to help expand knowledge in this area.

Although prior research related to management RDs had yielded a 31.7% total response rate from three management DPG's (Sauer et al., 2012), the actual response rate for this study is undetermined as the true number of CNMs in the CNM DPG is unknown. According to the CNM DPG chair, there has been a low response rate to recent membership surveys. This study was also limited in its ability to generalize the findings to CNMs who are not members of the CNM DPG. Since membership in a DPG is entirely voluntary and less common than AND membership, a possible confounding variable is that the sample group was drawn from a group of CNMs who are more professionally involved, more connected, and hence who may *feel* more satisfied with their career paths than other CNMs who are not members of the DPG.

The topic of careers may be sensitive to certain professionals and may inhibit responses, but the participants were assured that their responses were completely confidential. This assurance was reiterated to the participants throughout the process. Addressing the topic of

career paths may also be a sensitive topic for professionals who have not achieved their career aspirations, and these CNMs may have opted not to participate in the study.

The ability to generalize results to all CNMs was also limited by the fact that there likely is variance among responsibilities held by CNMs, but the categorization of job titles in the demographics section indicated that the core responsibilities of most respondents were similar. Also, by clearly defining a CNM as an RD who oversees integration of medical nutrition therapy in a health care organization and who manages people, resources, or both, the study was able to extrapolate results to those who share these core responsibilities.

Some CNMs may be in the early phases of his or her management career and are likely to have different perspectives than CNMs approaching the end of their career. Prior research with CNMs controlled for retirement by eliminating responses to certain questions pertaining to intent to leave the career, but this study did not eliminate the responses of the 32 respondents who indicated that they may retire within the next three years. The value of the responses of these CNMs in particular is that they had an enhanced ability to be able to reflect back on a significant number of years as a CNM.

The study was also limited by the fact that an unstable economy and an uncertain future may alter the perceptions of CNMs at this discrete moment in time. However, this study does provide the most current insight into the attitudes, beliefs, and opinions of CNMs in regard to factors impacting their career paths and supports the need for greater attention and research related to career paths of CNMs.

Conclusions and Recommendations

Professional education requirements by the Commission on Dietetic Registration (CDR) ensure that RDs seek out continuing education activities that keep them abreast of the current

nutrition knowledge and that align with their professional goals, but in today's ever changing and fiercely competitive work environment, being a very knowledgeable RD may not be sufficient to take one's career to the next level, whether it be in clinical nutrition management or in another practice sector. A 2011 survey of employers across various occupations found that over 70% valued emotional intelligence (EI) in an employee over intelligence quotient (IQ) (Lorenz, 2011). While a recent AND article pointed out that the percentage of dietetics related employers who value EI over IQ may be lower due to the clinical knowledge required of RDs (Fox, 2013), there has indeed been an overall trend in workplace research and career theory to place more emphasis on EI. Emotional intelligence is considered to be a composite of intrinsic and extrinsic factors that contribute to career success, and the results of this study have shown that certain intrinsic and extrinsic factors are considered by CNMs to have played significant roles in either advancing or limiting their career paths.

Both the quantitative and qualitative analyses indicated that internal mechanisms such as self-motivation, self-confidence, self-efficacy, career adaptability, and resilience helped propel career paths whereas lack of self-confidence, self-doubt, and negative self-perceptions hindered CNMs' career paths and at times contributed to resistance to making changes. According to Dr. Bryan Dik, vocation/career researcher at Colorado State University, self-motivation and self-efficacy are key factors which can contribute to career success, and self-efficacy is defined as "confidence in one's ability to successfully navigate the career development process" (Bryan J. Dik, personal communication, March 31, 2014). The possession of strong leadership skills was also identified by the CNMs in this study as a key contributor to career success along with communication skills and being a team player.

Although the factors described above are all intrinsic, such skills can indeed be learned and strengthened with practice. While many RDs do not necessarily predict a career in management, undergraduate as well as graduate foci in higher-education programs which encourages the development of skills and competencies associated with emotional intelligence and leadership skills would be beneficial for all RDs. Courses that address group dynamics, communication and counseling skills, management skills, and conflict resolution would equip future CNMs (and current CNMs seeking graduate degrees) with a foundation on which to build. Many CNMs have had to learn such skills by trial and error on the job, but if these CNMs were better prepared going into their positions, they would likely have more self confidence in their abilities and would be more willing to learn new skills that will allow them to adapt to the continually changing work environment. Furthermore, CNMs could continue to enhance their leadership skills by taking continuing education courses if such leadership and interpersonal skills courses were more available to dietitians and specific to their areas of practice. Unfortunately, in the past, management is an area of professional development in which RDs reported having the most trouble finding continuing education courses to hone management skills (Cluskey, Gerald, & Gregoire, 2012).

A common thread noted by many of the CNMs in this study was a lack of business knowledge and financial skills in spite of the fact that many of the CNMs managed considerable budgets. Aside from a basic economics course, many RDs are not required to take business or financial management courses, but the author of this thesis would recommend that a business skills course and a financial management or accounting course should be mandatory at least at the graduate/advanced practice level. Some CNMs may be passed over for higher positions

because upper management perceives that the CNM only knows about nutrition and not about budgets.

Development and strengthening of interpersonal skills and business/financial knowledge is likely to garner CNMs more support from upper management/employers/administration. Support from upper management/employers/administration was noted to be a major factor in determining a CNM's access to promotion opportunities, information, and resources in the workplace- all of which are related to career success. To gain support both from upper management and from fellow health care team members, CNMs would benefit from volunteering to be on teams or task forces within their organization that may not necessarily be related to nutrition. As stated by one respondent, CNMs must be willing to "think outside the box." Although the status of the local or national economy and downsizing can be external hindrances to a CNMs' career path, CNMs can still be proactive by being willing to lead projects in their organizations and by learning new skills. Again, adaptability and willingness to learn new skills have been strongly associated with career success (Lent, 2013).

In regard to the external influences over which one has limited or no control, such as unexpected family needs, health problems, natural disasters, and the future of the economy, the best one can do is to continue to work on strengthening internal mechanisms such as coping skills, emotional intelligence, and resilience in order to be able to deal with challenges presented by external factors. An extrinsic factor of interest which emerged from the study was the role of social service motivation, which was shown to have a mildly positive influence on career paths. Several studies have demonstrated that people tend to view a career as more fulfilling when it goes beyond just meeting one's own goals and desires and actually contributes to the benefit of others (Duffy and Dik, 2009). In the field of dietetics, many young RD's are initially motivated

to enter the field because they have been personally influenced by a loved one who has a chronic disease or have observed the deleterious effects of chronic disease (i.e. obesity, diabetes) on society. What remains in question is what specific factors call RDs to become CNMs five or ten years later into their careers. Now that this study has explored the effects of a variety of factors, future research could make comparisons of which factors serve as motivators early in one's career and which have more impact later in the careers of CNMs.

Dr. Dik of Colorado State University identifies two categories of career success; subjective and objective (Bryan J. Dik, personal communication, March 31, 2014). Subjective measures are tied in with intrinsic factors such as meaningful engagement in work, feeling a sense of purpose, or feeling a sense of autonomy whereas objective measures of career success could be related to salary and position. This study explored CNM's opinions in regard to five measures of job satisfaction. The CNMs were moderately satisfied with overall career success, goal achievement, and progress toward new skill development yet were less than satisfied with achieving income goals, an objective measure of job satisfaction. As a whole, the CNMs in this study represented $\geq 75^{\text{th}}$ percentile of CNM salaries, but these CNMs may be comparing their salaries to those of nurse managers, clinical nurse leaders, or other managers within their organizations. Future research could identify other referent groups for CNMs and further explore beliefs about inequity of pay.

As noted in the limitations section, the sample size (n=146) was limited by CNM time constraints and multiple responsibilities. The original Career Pathways Study of RDs in 2006 had observed that the lowest participation rate was from clinical dietitians as opposed to dietitians working in community nutrition, education, and other practice areas (Shanklin et al., 2006). In order to enhance response rate in future studies, researchers could consider traveling to CNM

symposiums and having a table with the study available and a chance to win prizes at the symposium itself. In such a venue (away from work duties), CNMs may be more relaxed and open to completing a survey or participating in similar research.

Certainly, the results of this research will contribute to the professional career guidance for RDs considering careers in clinical nutrition management in that it demonstrates the value of intrapersonal and interpersonal skill development. The study also serves as a precursor for future research about specific interventions to help improve the career satisfaction and advancement possibilities for CNMs. Another intent of this research is to inform the dietetics profession, educators, and healthcare administrators about this topic, thereby assisting in achieving the AND's goal to recruit, educate, and retain competent dietitians.

Table 4.1: Characteristics of Clinical Nutrition Managers (n=146)

Characteristic	n	%^a	Characteristic	n	%^a
<i>Age</i>			<i>Geographical region</i>		
20 – 29 years	5	3.4	Northeast	34	23.3
30 – 39 years	22	15.1	Southeast	33	22.6
40 – 49 years	27	18.5	Midwest	44	30.1
50 – 59 years	64	43.8	West	34	23.3
60 years or older	28	19.2	Guam, Puerto Rico, Virgin Islands, Overseas	1	0.7
<i>Gender</i>			<i>Ethnicity</i>		
Female	140	95.9	Caucasian	133	91.1
Male	5	3.4	Asian/Pacific Islander	3	2.1
<i>Education</i>			Hispanic	1	0.7
Baccalaureate degree	30	20.5	African-American	2	1.4
Some graduate coursework	21	14.4	Other	6	4.1
Master's degree	87	59.6	<i>Relationship status</i>		
Doctoral degree	7	4.8	Married	91	62.3
<i>Annual Income</i>			Single	19	13.0
under \$19,000	1	.7	Divorced	16	11.0
\$20,000 - \$29,000	0	0	Widowed	5	3.4
\$30,000 - \$39,000	0	0	Living with partner	9	6.2
\$40,000 - \$49,000	2	1.4	Prefer not to answer	4	2.7
\$50,000 - \$59,000	12	8.2			
\$60,000 - \$69,000	34	23.3			
\$70,000 - \$99,000	70	47.9			
\$100,000 or greater	16	11.0			
Prefer not to answer	7	4.8			

^aResponses may not equal 100% due to non-response to a question.

Table 4.1: Characteristics of Clinical Nutrition Managers (n=146) (Cont.)

Characteristic	n	%^a	Characteristic	n	%^a
<i>Years of dietetics-related experience</i>			<i>Primary place of employment</i>		
3 or less	2	1.4	Hospital or Medical Center	129	88.4
3 – 10 years	17	11.6	Other healthcare facility	2	1.4
11 – 15 years	18	12.3	Commercial/Industry setting	0	0
16 – 25 years	32	21.9	Long term care facility	6	4.1
25 years or more	75	51.4	Government or Military	2	1.4
			Other	7	4.8
<i>Years employed as a CNM</i>			<i>Responsible for multiple departments</i>		
3 or less	21	14.4	Yes	27	18.5
3 – 10 years	53	36.3	No	117	80.1
11 – 15 years	23	15.8			
16 – 25 years	29	19.9			
25 years or more	17	11.6			
<i>Years employed in current position</i>			<i>Employer type</i>		
3 or less	42	28.8	Self-operated organization	88	60.3
3 – 10 years	56	38.4	Contract management company	53	36.3
11 – 15 years	16	11.0	Self-employed	3	2.1
16 – 25 years	20	13.7			
25 years or more	12	8.2			
<i>Coordinate medical nutrition therapy</i>			<i>Employment status</i>		
Yes	127	87.0	Full-time	140	95.9
No	18	12.3	Part-time	4	2.7
			<i>Plan to retire within 3 years</i>		
			Yes	17	11.6
			No	113	77.4
			Maybe	15	10.3

^aResponses may not equal 100% due to non-response to a question.

Table 4.1: Characteristics of Clinical Nutrition Managers (n=146) (Cont.)

Characteristic	n	%^a	Characteristic	n	%^a
<i>Job title</i>			<i>Level of budget responsibility</i>		
Clinical nutrition manager	83	56.8	No budget responsibility	59	40.4
Chief clinical dietitian	9	6.2	\$1K - \$99K	18	12.3
Director of Dietary/Director of F/N	20	13.7	\$100K - \$499K	24	16.4
Other	34	23.3	\$500K - \$999K	10	6.8
			\$1 million or greater	33	22.6
<i>Standard of Performance^b</i>			<i>Number of direct reports</i>		
Competent	24	16.4	No employees	5	3.4
Proficient	66	45.2	1 – 9 employees	49	33.6
Expert	55	37.7	10 – 19 employees	40	27.4
			20 – 29 employees	23	15.8
			30 – 39 employees	14	9.6
			40 or more employees	12	8.2

^aResponses may not equal 100% due to non-response to a question.

^bStandards of Operating Performance for CNMs as defined by the Academy of Nutrition and Dietetics

Table 4.2: Mean Responses of Intrinsic Career Factors (n=146)

Measures ^a	Mean \pm Standard Deviation ^b
Self -Motivation	4.47 \pm 0.79
Communication Skills	4.38 \pm 0.80
Being a Team Player	4.38 \pm 0.80
Leadership Skills	4.33 \pm 0.88
Resilience	4.22 \pm 0.84
Self-Efficacy	4.12 \pm 0.84
Emotional Intelligence	4.12 \pm 0.84
Career Adaptability	4.12 \pm 0.84
Coping Skills	4.08 \pm 0.85
Importance of Meaningful Engagement	4.01 \pm 0.99
Self-Confidence	4.00 \pm 0.92
Self-Perceptions	3.85 \pm 0.89
Empathy	3.75 \pm 0.92
Networking and Marketing Skills	3.73 \pm 1.09
Altruistic Desires	3.50 \pm 1.07
Business Knowledge	3.26 \pm 1.19
Financial Expertise	3.10 \pm 1.21

^aOverall item reliability (Cronbach's $\alpha = 0.91$)^bScale values range from Not at all Influential (1) to Extremely Influential (5)

Table 4.3: Mean Responses of Extrinsic Career Factors (n=146)

Measures^a	Mean \pm Standard Deviation^b
Support from Other Health Care Team Members	4.35 \pm 0.75
Support from Management/Administration	4.34 \pm 0.92
Autonomy in the Workplace	4.24 \pm 0.80
Support from Family	4.16 \pm 0.88
Access to Information in the Workplace	4.06 \pm 0.83
Access to Resources in the Workplace	3.94 \pm 0.94
Access to Promotion Opportunities	3.78 \pm 1.08
Involvement in Professional Organizations	3.70 \pm 0.85
Having a Mentor	3.66 \pm 0.90
Support from Friends	3.62 \pm 0.76
Role Identity	3.32 \pm 0.89
Family Needs and Expectations	3.12 \pm 0.98
The “Glass Ceiling”	2.80 \pm 0.73

^aOverall item reliability (Cronbach’s $\alpha = 0.72$)

^bScale values range from Extremely Negative Impact (1) to Extremely Positive Impact (5)

Table 4.4: Mean Responses of Environmental and Societal Career Factors (n=146)

Measures^a	Mean \pm Standard Deviation^b
Societal Health Needs/ Social Service Motivation	3.17 \pm 0.59
Geographical Location	3.15 \pm 0.94
Relocation	3.13 \pm 0.76
Natural Disasters	2.98 \pm 0.37
Unforeseen Health Problems (self)	2.91 \pm 0.49
Unforeseen Health Problems (family)	2.84 \pm 0.47
Status of the Local or National Economy	2.79 \pm 0.81
Downsizing	2.69 \pm 0.80

^aOverall item reliability (Cronbach's $\alpha = 0.68$)

^bScale values range from Extremely Negative Effect (1) to Extremely Positive Effect (5)

Table 4.5: Mean Responses of Career Satisfaction (n=146)

Measures^a	Mean \pm Standard Deviation^b
I am satisfied with the success I have achieved in my career.	4.16 \pm 0.87
I am satisfied with the progress I have made toward meeting my overall career goals.	4.12 \pm 0.85
I am satisfied with the progress I have made toward meeting my goals for the development of new skills.	3.90 \pm 0.92
I am satisfied with the progress I have made in meeting my goals for income.	3.54 \pm 1.16
I am satisfied with clinical career ladders for CNMs.	2.93 \pm 1.13

^aOverall item reliability (Cronbach's $\alpha = 0.80$)

^bScale values range from Strongly Disagree (1) to Strongly Agree (5)

Chapter 5 – Summary and Conclusions

The advent of the Patient Protection and Affordable Care Act is likely to broaden the type and number of clients served by clinical dietitians across the continuum of health care, and CNMs of today and the future must be prepared for coordinating medical nutrition therapy delivery in a cost-efficient and cost-effective manner. The Academy of Nutrition and Dietetics' Council on Future Practice identified clinical skills and management skills as two key areas of emphases for RDs in its 2012 Visioning Report (Gilbride, Parks, & Dowling, 2013). While the job outlook as a whole for RDs is very good over the remainder of the decade at 20% growth (Bureau of Labor Statistics, 2013), there has been a significant decline within this decade in the number of RDs holding management and budget responsibilities. Experts in the field have speculated that this trend could adversely affect the dietetics profession unless RDs, and CNMs in particular, are more competent than potential competitors and are prepared to take on leadership roles and business positions (Gilbride et al., 2013).

In light of the needs and vision for future practice of CNMs, this study sought to conduct career path research that would support the AND's research priorities to examine factors associated with the recruitment and retention of competent, educated RDs (Sauer, Canter, Shanklin, 2012). Before this study, CNMs had not been studied as an isolated group of dietitians in relation to career path determinants. An extensive literature review had yielded a comprehensive list of intrinsic and extrinsic factors that could impact an individual's career path, and the purpose of the study was to describe the opinions, attitudes, and beliefs of CNMs in regard to the impact of 17 intrinsic and 21 extrinsic factors on their career paths. As a result of this study, the profession now has a validated career path survey specific to clinical nutrition

management, and much insight has been gained in order to address a general empirical question as it pertains to the role of internal and external variables in career development.

The study also continued aspects of prior research performed on management RDs in relation to career satisfaction. Career satisfaction tends to be correlated with career success (Smith, Caputi, & Crittenden, 2012), but previous research had indicated that when compared to other management RDs, CNMs were less satisfied with positions, income, and opportunities for career advancement (Sauer, Canter, & Shanklin, 2012). This study included questions adapted from the previous research and found similar results but also provided new insight about career ladders and raised new questions for future research.

Key Findings

RQ 1 - What are the intrinsic factors that impact the career decisions of CNMs?

In the nursing profession, career advancement is aligned not only with engagement in professional development but also with possession of intrapersonal competencies known as “human capital factors” which include self-motivation, self-confidence, self-efficacy, and the ability to adapt to change (Adeniran & Adeniran, 2012). The results of this study parallel the nursing literature in that CNMs identified self-motivation, self-confidence, self-efficacy, and career adaptability as key intrinsic factors which had helped to advance their careers. Self-motivation and self-efficacy inspire CNMs to follow through on pursuing their goals while career adaptability, coping skills, and resilience assist CNMs in dealing with barriers they may encounter while in pursuit of their goals. CNMs also acknowledged that emotional intelligence, which is also a human capital factor and encompasses self-awareness, empathy, and regulation of emotions, has played an important role in facilitating better relationships with subordinates and superiors.

In the qualitative analysis, leadership skills were frequently mentioned as being pivotal in career advancement, and the aforementioned intrinsic factors are all vital components in leadership development along with “social capital factors” such as being able to get along well with others, being able to communicate well, and being able to foster cooperation among healthcare team members (Adeniran et al., 2012). Social capital factors, such as being a team player and having communication skill, did rank high quantitatively in this study, and in the qualitative analysis, CNMs noted the value of being able to interact with different kinds of people and of being willing to admit when one is wrong. The possession of these social capital factors go far in building trust among members of the health care team, which can also lead to a higher level of trust and respect between a CNM and upper management.

The top three intrinsic factors perceived by CNMs as limiting to career advancement were lack of self-confidence (which also included expression of self-doubt, shyness, worrying), lack of business knowledge, and lack of financial expertise. Some CNMs commented that they had actually placed career related limitations on themselves due to fear and self-doubt and had taken fewer risks in the workplace due to a desire of being liked by others. Certainly, self-confidence cannot be acquired immediately, but it can be strengthened with practice by developing positive attitudes about learning new skills, forcing oneself *out* of one’s comfort zone, and by exhibiting “continued practice of new behaviors” (Fox, 2013). In the future, RDs may be required to take more business and financial management courses, but in the meantime CNMs may benefit from taking the initiative to seek out professional development activities related to these learning needs.

RQ2 - What are the extrinsic factors that impact the career decisions of CNMs?

Career adaptability and resilience were previously identified as intrinsic factors that are important in career life preparedness, which suggests that professionals must be proactive in developing strategies to manage career threats and in developing skills that will make them ready to seize career opportunities. Assuming that external influences originating beyond oneself can interfere with one's volition to solely make career choices, this study explored the impact of 21 external influences that have the potential to either enhance career paths or interfere with career paths. Support from within one's organization such as from upper management/employers and from other members of the health care team, were named by CNMs as having the most positive impact on career paths. While emotional and moral support from family and friends is particularly important for women, who tend to be relational in nature, the support from within one's organization has more of an impact on career paths because such support increases the likelihood that a CNM will have more access to promotion opportunities, resources, and information in the workplace. Autonomy in the workplace was mentioned in the qualitative analysis as being a factor that advanced career paths, and, in fact, career theory research has shown that people who feel they have more control over their career paths are generally more satisfied in their careers and feel less anxious (Duffy & Dik, 2009). Surprisingly, in some cases CNMs reported that geographical location, downsizing, and unforeseen circumstances actually advanced their careers because they were challenged to take on new responsibilities as new "doors" were opened within their career paths.

Many people including CNMs struggle with trying to maintain a balance between family and career, and family needs and expectations were the external influence most commonly named as limiting career paths. Prioritization of family needs is a conscious and albeit admirable

choice, and this external influence will continue to have variable impacts on the career paths of CNMs. However, if a CNM's career must be temporarily placed on hold, the CNM can continue to keep current with trends in nutrition by reading journals, keeping in touch with other CNMs, and by continuing to participate in professional development activities and CNM DPG communications in order to be ready to resume one's career as a CNM.

RQ3 - How do CNMs describe their career choices and perceptions about higher management positions within health care?

Most CNMs in the study did not feel that their careers were limited by glass ceilings, a phenomenon reported by women professionals in other careers, but they did feel that the status of the local and national economy combined with downsizing had limited career choices and income potential. They observed that nurse managers within their organizations had access to many job opportunities but that CNMs often could not advance any further within their organizations. A common thread was that the CNMs were focused on career options only within clinical nutrition management but did not mention the possibility of seeking multi-department management or of seeking executive level leadership and business positions in other arenas. Again, CNMs may be self-limiting their professional opportunities by allowing a lack of self-confidence or poor self-perceptions to prevent them from reaching out to do more within their organizations or to do better in their current CNM positions. Research conducted just over a decade ago on multi-department management by RDs did indicate that key intrinsic factors such as being a team player and having good communication skills were vital attributes to being a good multi-department manager, which does correspond with the results of this study in regard to key intrinsic factors that help to advance careers. Clearly, perceptions by CNMs of themselves and perceptions of CNMs by key players in their organizations will ultimately

determine to what degree CNMs will be able to take the necessary steps to further their careers in the healthcare arena.

RQ4 - To what degree do leadership skills, business and financial expertise, and educational background impact the career paths and success of CNMs?

The importance of leadership skills in the evolution of dietetics practice has been the subject of much focus by the AND and the CNM DPG over the past few years, and the Standards of Operating Performance for CNMs describe leadership as a skill that “utilizes self-confidence but moves beyond that through the ability to envision possibilities, persuade others that this vision is possible with their help, and guide the course toward attainment” (Clark, Moore, Trombley, Skates, Rogalski, Schofield, et al., 2012). The CNMs in this study resoundingly agreed that leadership skills were one of the top three, if not the most influential, factors in assuring career success. The CNMs in this study often mentioned leadership skills and self-confidence together as intrinsic factors that allowed them to move forward professionally, and they felt that development of leadership skills comes with experience as a CNM. CNMs can now look forward to more professional development activities related to leadership skills as the CNM DPG has included leadership skill development as a strategic goal for the next 3 years.

On the other hand, attitudes and beliefs related to business and financial expertise ranged from disinterest in these topics to feelings of ineptness with budgetary and business responsibilities. The majority of the respondents did report having management and budget responsibilities but did not rank having business skills and financial expertise as key intrinsic factors advancing their careers. They did, however, indirectly acknowledge that having such skills would be indeed be a considerable asset to one’s career because in the qualitative responses they reported that insufficient financial expertise and business skills had limited their

careers. In effect, although many were already dealing with budgets and were juggling clinical and food service duties, they felt that they could contribute more to the needs of their organization if they were more business savvy. Hence, the author of this thesis does recommend that mandatory business and financial management courses be considered for future dietetics curriculum and professional development.

Prior research on workplace empowerment among CNMs demonstrated that CNMs who have graduate degrees and who have health information technology skills had higher degrees of workplace empowerment. This meant that they experienced more recognition and relevance within their organizations and had greater access to promotion opportunities, information, and resources. The majority of CNMs in this study had Master's degrees, and a few had Ph.D.s, and thus this group of CNMs, who overall considered themselves to be successful in their careers, were a very educated group of professionals. Some of them stated their beliefs in being a lifelong learner in order to keep pace with advances in the field of dietetics.

RQ5- What are the motives and motivators for CNMs to stay in their careers?

Initial motivators for entry into the field of dietetics are likely to be strongly related to social service motivation, previously described as a desire to meet societal health needs. The calling to be a dietitian may arise from concern about an ill family member or from a broader view of societal health needs. Career researcher Dr. Bryan Dik recently stated that a calling to use one's gifts to make a meaningful impact, could easily be played out in the field of dietetics, and also prove to be a very powerful motivator in career development (Bryan J. Dik, personal communication, March 31, 2014). Results of this study did suggest that social service motivation had a moderately positive influence on career paths, and when the author of this thesis chose to pursue a dietetics career over 25 years ago, an intense interest in food and

nutrition combined with a desire to work with people were the real reasons why this career was chosen. The same could be said for other CNMs.

Nevertheless, as an RD progresses further into his/her career and might chose a management career, there are other motivators inherently related to career satisfaction such as income, personal and professional growth, and the achievement of higher positions within one's career. This study revisited CNMs' opinions about various indices of career satisfaction and again found that CNMs were moderately satisfied with overall career success, achievement of career goals, and new skill development. They were still not particularly satisfied with income, which suggests that further research is required to explore more specifics about fairness of pay among CNMs. They reiterated their opinion about CNMs having limited career opportunities by voicing discontent with career ladders for CNMs, and there is now hope in this area as dietetics some medical centers have started to put career ladders for RDs in place. While many CNMs tend to be motivated by the idea of upward career mobility, the future for CNMs may hold exciting linear career opportunities within or outside of their organizations.

Implications

A large body of research in the nursing profession has provided a foundation for this study by providing empirical and anecdotal evidence that career paths can be significantly affected by intrapersonal and interpersonal variables (Adeniran et al., 2012). This study examined, for the first time the opinions, attitudes, and beliefs of CNMs in relation to similar intrapersonal and interpersonal variables and concludes that there is an additive effect of intrinsic and extrinsic factors on the career paths of CNMs. This research identified learning needs for CNMs to enhance intrapersonal and interpersonal skills and will contribute to the professional career guidance for RDs considering careers in clinical nutrition management. The study also serves as

a precursor for future research about specific interventions to help improve the career satisfaction and advancement possibilities for CNMs and to help answer remaining questions related to equity of pay. Another outcome of this research is current insight for use by the dietetics profession, educators, and healthcare administrators, thereby assisting in achieving the AND's goal to recruit, educate, and retain competent dietitians.

Future Directions

Megan McHenry, CNM of Memorial Hermann Hospital at Texas Medical Center in Houston, TX, recently studied the use of a modernized career ladder for dietitians at ten facilities and presented her findings at the Academy's Food and Nutrition Conference and Expo 2013 (FNCE). The career ladder protocol was developed using the AND's Career Development Guide, recommendations from the AND House of Delegates, and Professional Practice Model. Megan strongly believes that the use of a modernized career ladder is an innovative, proactive method of carving the career path of RDs in the changing healthcare setting (McHenry & Johnson, 2013). Clearly, the topic of career paths for clinical dietitians is timely and exciting, and the results of this study are one of many concurrent strides forward in the field of clinical nutrition management.

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Appendices

Appendix A – Online Cover Letter and Survey Instrument

Dear Professional,

A research team from the Department of Hospitality Management and Dietetics at Kansas State University is conducting a study to evaluate the intrinsic and extrinsic factors that impact the career paths of clinical nutrition managers. You have been identified by a member of the research team as a clinical nutrition manager who may be willing to participate in this study. Results from this study will benefit clinical nutrition management practice, contribute to professional career guidance for RDs, and will inform the dietetics profession, educators, and health care administrators about this topic. A summary of the findings will be provided to the Clinical Nutrition Management DPG Executive Committee and shared at professional venues.

Your input is important for the success of this study. Please take a few minutes to complete the survey; the survey will take less than 15 minutes of your time. Your participation is voluntary. Refusal to participate will involve no penalty or loss of benefits, and you may discontinue participation at any time without penalty or loss of benefits. Your responses will remain confidential and anonymous. Only summary results will be reported. No individual responses will be disclosed. Completing the questionnaire indicates that you are volunteering to participate in this study. The survey has been approved by the CNM DPG Executive Committee.

In appreciation for your time and response, you will have a chance to enter a drawing for a gift card to a national retailer. Instructions to be included in the drawing are provided at the conclusion of the survey.

If you have any questions about this study, please feel free to contact Dr. Kevin Sauer at 785-532-5581 or ksauer@ksu.edu or Jennifer Bange at 831-801-3872 or jmbange@ksu.edu. For questions about your rights as a participant or the manner the study is conducted, you may contact Dr. Rick Scheidt, Chair of Committee on Research Involving Human Subjects, (785) 532-3224, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506.

Sincerely,
Jennifer Bange, RD, Clinical Nutrition Manager
Graduate Student, Hospitality Management & Dietetics
Kansas State University

Kevin Sauer, PhD, RD, LD, Assistant Professor
Hospitality Management & Dietetics
Kansas State University

Part I- Intrinsic Factors - Intrinsic career factors typically involve factors that are essentially under one's own control and are internally focused. Please rate the level of influence each of the following factors has had on your career path as a CNM. By hovering over each factor, a description of the factor will appear.

	Not at all influential (1)	Somewhat influential (2)	Neutral (3)	Very influential (4)	Extremely influential (5)
Self-Confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Efficacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resilience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career adaptability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Empathy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coping Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a Team Player)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Networking and Marketing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Altruistic Desires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial Expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Importance of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Meaningful Engagement					
Self- Perceptions	○	○	○	○	○

Intrinsic career factors, similar to those previously described, typically involve factors that are essentially under one's own control and are internally focused. What intrinsic factors have **ADVANCED** your career as a CNM the most?

Intrinsic career factors, similar to those previously described, typically involve factors that are essentially under one's own control and are internally focused. What intrinsic factors have **LIMITED** your career as a CNM the most?

Part II- External Influences - Extrinsic career factors typically involve factors that are essentially beyond one's own control and are externally focused. Please rate the impact each of the following factors has had on your career path as a CNM. By hovering over each factor, a description of the factor will appear.

	Extremely Negative Impact (1)	Somewhat Negative Impact (2)	No Impact (3)	Somewhat Positive Impact (4)	Extremely Positive Impact (5)
Support from Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support from Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support from (or Acceptance by) Other Health Care Team Members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support from Upper Management/Administration/Employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to Promotion Opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to Information in the Workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to Resources in the Workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy in the Workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a Mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement in Professional Organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The "Glass Ceiling"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family Needs and Expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Role Identity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part III- The Environmental and Societal Factors - Life circumstances and uncontrollable external situations can affect career decision making in both beneficial and detrimental ways. What effect have the following extrinsic factors had on your career path? By hovering over each factor, a description of the factor will appear.

	Extremely Negative (1)	Negative (2)	Neutral (3)	Positive (4)	Extremely Positive (5)
Status of the Local or National Economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downsizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geographical Location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relocation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unforeseen Health Problems(Self)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unforeseen Health Problems(Family)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Societal Health Needs/Social Service Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural Disasters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Extrinsic career factors, similar to those previously described, typically involve factors that are essentially beyond one's own control that are externally focused. What extrinsic factors have **ADVANCED** your career as a CNM the most?

Extrinsic career factors, similar to those previously described, typically involve factors that are essentially beyond one's own control that are externally focused. What extrinsic factors have **LIMITED** your career as a CNM the most?

Part IV- Career Satisfaction - Please take a moment to reflect about your career in dietetics practice as a CNM. The following section pertains to how you currently feel about your career path as a CNM. For

each of the following items, please select the response which best expresses your CURRENT level of career satisfaction.

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
I am satisfied with the success I have achieved in my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made in meeting my overall career goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made in meeting my goals for income.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with clinical career ladders for CNMs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the progress I have made toward meeting my goals for the development of new skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part V- Demographics/Background

Which job title best describes your current position?

- ☐ Clinical Nutrition Manager
- ☐ Chief Clinical Dietitian
- ☐ Director of Dietary Services/Director of Food and Nutrition Services
- ☐ Other - please describe below _____

The Academy of Nutrition and Dietetics and the CNM DPG have established the following Standards of Performance for RD's in Clinical Nutrition Management. Which standard best describes your current level of professional performance?

- ☐ Competent- A competent CNM is a task oriented CNM who is newly acquiring management skills.
- ☐ Proficient- A proficient CNM has a moderate level of management experience.
- ☐ Expert- An expert CNM has achieved the highest level of skill and mastery in clinical nutrition management.

Do you coordinate medical nutrition therapy for patient care?

- ☐ Yes
- ☐ No

How many years of dietetics-related experience do you have?

- ☐ Less than 3 years
- ☐ 3 to 10 years
- ☐ 11 to 15 years
- ☐ 16 to 25 years
- ☐ Over 25 years

How long have you been a CNM?

- ☐ Less than 3 years
- ☐ 3 to 10 years
- ☐ 11 to 15 years
- ☐ 16 to 25 years
- ☐ Over 25 years

How many years have you been in your current position?

- ☐ Less than 3 years
- ☐ 3 to 10 years
- ☐ 11 to 15 years
- ☐ 16 to 25 years
- ☐ Over 25 years

Do you plan to retire within the next 3 years?

- ☐ Yes
- ☐ Maybe
- ☐ No

What is your primary place of employment?

- ☐ Hospital or Medical Center
- ☐ Other Health Care Facility
- ☐ Commercial/Industry Setting
- ☐ Long-term care facility
- ☐ Government or Military
- ☐ Other - please specify below _____

Are you responsible for multiple departments?

- ☐ Yes
- ☐ No

Which of the following best describes your employer?

- ☐ Contract Management Company
- ☐ Self-operated organization
- ☐ Self-employed

What is your level of budget responsibility?

- ☐ >\$1 million
- ☐ \$500K- \$999K
- ☐ \$100K- \$499K
- ☐ \$1K-\$99K
- ☐ No budget responsibility

How many employees report directly to you?

- ☐ >50 employees
- ☐ 30-49 employees
- ☐ 20-29 employees
- ☐ 10-19 employees
- ☐ 1-9 employees
- ☐ No employees

Please indicate your current employment status.

- ☐ Full-time (32 or more hours per week)
- ☐ Part-time (less than 32 hours per week)

What is your current annual income (pre-tax)?

- ☐ Under \$19, 999
- ☐ \$20,000-\$29,000
- ☐ \$30,000-\$39,000
- ☐ \$40,000-\$49,000
- ☐ \$50,000-\$59,000
- ☐ \$60,000-\$69,000
- ☐ \$70,000- \$99,000
- ☐ \$100,000 or greater annually
- ☐ Prefer not to answer

What is your age?

- ☐ 20-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ Over 60

Please indicate:

- ☐ Male
- ☐ Female

What is your highest level of education?

- ☐ Baccalaureate degree
- ☐ Some graduate coursework completed
- ☐ Master's degree
- ☐ Doctoral degree

In which geographical region of the United States are you employed?

- ☐ Northeast
- ☐ Southeast
- ☐ Midwest
- ☐ The West
- ☐ Guam, Puerto Rico, US Virgin Islands
- ☐ Employed overseas

Please indicate your relationship status:

- ☐ Single
- ☐ Married
- ☐ Living with partner
- ☐ Divorced
- ☐ Widowed
- ☐ Prefer not to answer

Please indicate your ethnicity:


- ☐ Caucasian
- ☐ African-American
- ☐ Native American
- ☐ Asian/Pacific Islander
- ☐ Hispanic
- ☐ Other - please specify below_____

In appreciation for your time and response, you may enter a drawing for a gift card to a national retailer. If you would like to be included in the drawing, please email Jennifer Bange at jmbange@ksu.edu. Please include CNM Career Path Study in the subject line. Thank you!

Appendix B – Institutional Review Board Approval

TO: Kevin Sauer
HMD
105 Justin

Proposal Number: 6950

FROM: Rick Scheidt, Chair 
Committee on Research Involving Human Subjects

DATE: 11/25/2013

RE: Proposal Entitled, "Descriptive Study of the Impact of Intrinsic and Extrinsic Factors on the Career Paths of Clinical Nutrition Managers"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written - and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.