USE OF MINTZBERG'S MODEL OF MANAGERIAL ROLES
AS A FRAMEWORK TO DESCRIBE A POPULATION
OF ACADEMIC HEALTH PROFESSION ADMINISTRATORS

Richard D. Muma

A Dissertation Submitted to
The Graduate School of the University of Missouri-St. Louis
In Partial Satisfaction of Requirements for the
Doctor of Philosophy Degree in Education

Advisory Committee:
Patricia Somers, Ph.D., Chair
Timothy Farmer, Ph.D.
Kathleen Haywood, Ph.D.
Shawn Woodhouse, Ph.D.

March, 2004
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Richard Dean Muma
Advisor
Patricia Somers, Ph.D.
Associate Professor

This research study used both quantitative and qualitative methods to measure physician assistant (PA) department chair administrative activities compared to Mintzberg's model of managerial roles (Mintzberg, 1973). The use of Mintzberg's model is unique in that it was developed from observations in the corporate setting, but was applied here in an academic setting. In this regard, PA department chairs (n=77) and
PA faculty (n=94) comparisons reported their perceptions on PA chair administrative roles and importance as defined by Mintzberg.

The following results were obtained: physician assistant department chairs were on average middle aged, predominately Caucasian, had a master’s degree, and more than 7 years of PA chair experience; both PA chairs and faculty identify the leader role as one that was used most by PA chairs and one that was viewed as most important; both PA chairs and faculty agreed that PA chairs were more concerned about functioning in the interpersonal realms of Mintzberg’s managerial roles as opposed to the informational and decisional realms; and there was a great deal of unanimity among PA chairs and faculty about the perceived role use and importance of the roles in regard to the job of a PA chair.

A key finding was the identification of the leader role as one that was used most by PA chairs and one that was viewed as most important as perceived by PA chairs and faculty. This finding was important according to Mintzberg’s model because it is through leader role use in which PA chairs can weld diverse elements into a cooperative enterprise. A secondary finding was that chairs were more concerned with providing information as opposed to processing and using information. Finally, chairs and faculty were given the opportunity to identify other constructs not covered by Mintzberg’s model in an effort to include other roles unique to PA education. Although a handful of roles were identified, when compared to Mintzberg’s model, each one matched an existing role defined in the model. These data indicated both chairs and faculty were in agreement with the way Mintzberg’s model can describe PA chair roles.
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Acknowledgments

This work is dedicated to the many individuals who have supported and encouraged me throughout my doctoral studies. First and foremost, Robert Etherton, who provided unconditional support throughout the entire process; Drs. Patricia Somers (dissertation advisor), Timothy Farmer, Kathleen Haywood, and Shawn Woodhouse (dissertation committee members) who patiently guided me through the research process; Dr. Barbara Smith who provided statistical and editorial advice; and finally my work colleagues Patricia Bunton, Dr. Peter Cohen, David Day, John Dudte, Sue Enns, Audrey Griffin, Dr. LaDonna Hale, and Tim Quigley who provided encouragement at every step.
Chapter One

Introduction

Overview

Important? Definitely. Overworked? Probably. Prepared for the job? Rarely. This is the typical academic department chairperson (Bennett, 1983). It seems that academic department chairs have too much to do and no time to do it. Frequently they ignore deadlines, have demands that are not met, and requests that are not answered (Stassen & Berger, 2002). Students, faculty, staff, and administrators queue up with phone messages, mailbox memos, emails, and knocks on the door (Stassen & Berger, 2002). It is surprising anything gets done in an academic environment.

The chairperson is an odd creature, in an odd spot (Bennett, 1983). Rooted in the faculty like no other administrator but tied to the administration like no other faculty member, he or she has both an excess and a deficiency of identity (Bennett, 1983). As a result, the roles that need to be played are many and the responsibilities can be challenging (Bennett, 1983). Despite the intricacies of running an academic department, chairs have very little administrative experience in doing so. Tucker (1984) surveyed 400 department chairpersons in the State University System of Florida and found that 68 percent had no prior administrative experience, the turnover rate was 15 to 20 percent per year, and the chairpersons' term of service was usually six years. Forty-one percent of these chairpersons were elected by their colleagues, and another 44 percent were appointed by their deans with faculty consultation. Department chairs in the health professions have little administrative experience as most are recruited from clinical positions without any academic experience, much less administrative experience. Of
particular interest in this study is that of the physician assistant (PA) department chairperson or, commonly referred to as chair.

There are critical shortages of PA faculty in general and department chairs in particular, partly because the PA profession is relatively young and one of the fastest-growing professions in the United States, with a 100 percent increase in new PA programs over the last seven years (Simon, Link, & Miko, 2000). This translates into chair shortages and turnover throughout the United States. It is assumed (among other things) that these shortages and turnover are due to a general lack of understanding of administrative roles. Determining administrative roles used by PA department chairs should be helpful (West, 1995) for recruitment and retention purposes and may lead to development of programs that appropriately inform those who are interested in becoming a PA academic administrator or for those who already serve in this position. Interventions of this kind may also lead to a stronger PA profession, both academically and professionally.

Theoretical Foundation

The theory of managerial roles, as described by Mintzberg (1973), provides the supporting framework for evaluating PA department chair roles. Mintzberg's (1973) management model is descriptive in nature and divided into three groups of roles: interpersonal, informational, and decisional (Mintzberg, 1973, p.56). The interpersonal roles ensure that information is provided (Mintzberg, 1973, p.56). The informational roles link all managerial work together (Mintzberg, 1973, p.57). The decisional roles make significant use of the information (Mintzberg, 1973, p.57) (Figure 1). Mintzberg (1973) further points out that the many demands faced by managers force them to assume
multiple roles, which are essentially an organized set of behaviors (Mintzberg, 1973, p.54). Although it is unknown at this point, it is assumed the work of a PA department chair can be described by the underlying tenets of Mintzberg’s model.

Mintzberg recognizes that functional specialty influences the relative importance of the various managerial roles (Pavett & Lau, 1985). For example, his research indicates that sales managers emphasize interpersonal roles, production managers give relatively more attention to decisional roles, and staff specialists spend the most time in informational roles (Pavett & Lau, 1985). Related work by Pavett and Lau (1983) also indicate that lower level managers (i.e, supervisors of nonmanagerial workers) are likely to function in the interpersonal realms (specifically the leader role) of Mintzberg’s theory.

![The Managerial Roles Diagram]

Figure 1. Mintzberg's Model of Managerial Roles*

Using Mintzberg's model to evaluate the role of department chairs may be useful to further understand the role in which PA department chairs find themselves in an academic environment. Mintzberg describes roles common to the work of all managers. The model also describes a situation in which managers give attention to the role descriptions and perceive them to be important. As described in Mintzberg's (1973) model, the three interpersonal roles are primarily concerned with interpersonal relationships (Mintzberg, 1973, p.58). In the figurehead role, the manager represents the organization in all matters of formality. In the liaison role, the manager interacts with peers and people outside the organization. The leader role defines the relationships between the manager and employees. Like the manager in a corporate setting, department chairs are often required to play different interpersonal roles in an academic setting. For example in the figurehead role, department chairs are required to represent and advocate for the department on many levels including the academic unit (or college), university and community levels. As a liaison, the department chair serves as a communicator between faculty and administration, students, other faculty, and to external individuals or groups.

The direct relationships with people in the interpersonal roles place the manager in a unique position to get information (Mintzberg, 1973). Thus, the three informational roles are primarily concerned with the information aspects of managerial work (Mintzberg, 1973, p.66). In the monitor role, the manager receives and collects information. In the role of disseminator, the manager transmits special information into the organization. In the role of spokesperson, the manager disseminates the organization's information into its environment (internal or external). Thus, the manager
is seen as an industry expert. Likewise, department chairs are information monitors, disseminators, as well as information facilitators. In a university system, department chairs serve as gatekeepers of information and, depending how they use or disseminate this information, may determine how effective they are as managers.

The unique access to information places the manager at the center of organizational decision making (Mintzberg, 1973, p.77). There are four decisional roles. In the entrepreneur role, the manager initiates change. In the disturbance handler role, the manager deals with threats to the organization. In the resource allocator role, the manager chooses where the organization will expend its efforts. In the negotiator role, the manager bargains on behalf of the organization. Department chairs are in unique positions in regard to these decisional roles. As a decision maker, chairs are likely to initiate change at this level.

The supervisor (or department chair) performs managerial roles but with different emphasis than higher managers (i.e., deans or presidents). Supervisory management is more narrowly focused and short-term in outlook (Mintzberg, 1973). Thus, the figurehead role becomes less significant and the disturbance handler and negotiator roles increase in importance for the supervisor (Mintzberg, 1973). Since leadership permeates all activities, the leadership role is among the most important of all roles at all levels of management (Mintzberg, 1973). This finding is also important according to Mintzberg, as it is through leader role use the manager should be able to weld diverse elements into a cooperative enterprise (Mintzberg, 1973, p. 62).
Mintzberg also suggests that there are natural managerial groupings which emerge among the diverse array of managerial activities. Eight types are summarized in Table 1 with reference to their most important roles.

Mintzberg's theory has been replicated and supported by different research groups. Kurke and Aldrich (1983) studied top managers using structured observation and unstructured interviews in an attempt replicate the constructs of Mintzberg's theory. Their results were consistent with Mintzberg's role delineation and provided support for Mintzberg's conclusions on the nature of managerial work based on interpersonal, informational, and decisional roles.

Table 1

*Eight Managerial Job Types and Their Key Roles*

<table>
<thead>
<tr>
<th>Managerial Job Type</th>
<th>Key Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact man</td>
<td>Liaison, figurehead</td>
</tr>
<tr>
<td>Political Manager</td>
<td>Spokesman, negotiator</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>Entrepreneur, negotiator</td>
</tr>
<tr>
<td>Insider</td>
<td>Resource allocator</td>
</tr>
<tr>
<td>Real-time manager</td>
<td>Disturbance handler</td>
</tr>
<tr>
<td>Team manager</td>
<td>Leader</td>
</tr>
<tr>
<td>Expert manager</td>
<td>Monitor, spokesman</td>
</tr>
<tr>
<td>New manager</td>
<td>Liaison, monitor</td>
</tr>
</tbody>
</table>


A number of studies have applied Mintzberg's theory to various populations. Pavett and Lau conducted most of the early studies (Lau & Pauvett, 1980; Pavett & Lau, 1982; 1983; 1985). Their most relevant work applies Mintzberg's theory to managerial jobs across two sectors (Lau & Pauvett, 1980; Pavett & Lau, 1985). These studies evaluated managers in the public and private sector, specifically research and development managers and non-research and development managers. Pavett and Lau
found that, regardless of work setting, the most important roles were leader, resource allocator, and disseminator (Schafer, 1992). Pavett and Lau also concluded that these roles did not appear to be career specific and could be applied to any manager in any industry (Schafer, 1992). Lau, Newman and Broedling (1980) studied managers in the public sector and evaluated whether they engaged in activities that corresponded to Mintzberg's managerial role descriptions. Their results also suggested that public sector managers engage in activities that correspond to Mintzberg's (1973) managerial role descriptions.

*Purpose of the Study*

To better understand PA department chairs, it is important to understand their roles. The literature is lacking in several areas in this regard, particularly in the health profession literature (see Chapter two). Although the department chair literature in general has steadily grown over the last twenty years, it mostly focuses on what chairs should do. In fact, deans and presidents have made significant strides in ensuring that department chairs know what they should do in regard to planning and management (Tucker, 1984), particularly activities related to strategic planning.

In many ways, the chair position is a blend of the lower level corporate manager and a more service-related position. Modern managers use many of the practices, principles, and techniques developed from earlier concepts and experiences, such as those described in the classical school of management thought of planning, organizing, and directing (Mintzberg, 1980). Likewise, the modern chair can find its roots in the industrial revolution, which brought about the emergence of large-scale businesses and the need for universities to develop specialized departments to meet the educational needs
of those working in such fields such as business (Dyer & Miller, 1999). According to the Association of American Medical Colleges' Chair Objectives Project Report (AAMC, 2003), successful chairs are experienced in managerial functions and have an understanding of the roles required to manage an academic department. Although this report describes an academic chair which closely resembles a PA department chair, there are distinct differences, i.e., medical school chairs oversee doctoral level programs with different educational standards.

In any case, evaluating the nature of individuals in PA chair positions, including the way they conduct themselves as managers, should be a significant resource to assist in the understanding of their position. For example, lower level managers (i.e., those closest to the actual supervision of nonmanagerial personnel) rate leadership as a more important role to engage in and higher level managers (i.e., chief executives) rate the roles of disseminator, figurehead, negotiator, liaison, and spokesperson as more important (Pavett & Lau, 1983). Figure 2 illustrates this concept, which is based on empirical data from Pavett and Lau (1983). Additionally, determining the roles experienced PA chairs perceive as important may be useful in mentoring novice PA department chairs.

![Figure 2. Expected Importance of Mintzberg's Model: High Level vs. Low Level Managers](image)

F=Figurehead; Le=Leader; Li=Liaison; M=Monitor; D=Disseminator; S=Spokesperson; DH=Disturbance handler; E=Entrepreneur; RA=Resource allocator; N=Negotiator
Although Mintzberg's model has been used primarily to describe corporate managers, it serves as a framework for understanding the work of academic chairs. Therefore, the primary purpose of this study was to determine managerial roles PA department chairs use and perceive as important as compared to Mintzberg's (1973) model.

Based on the information in the literature and the need for further research in this area, this study proposed to explore PA department chair roles from two different population perspectives: PA department chairs and PA department faculty.

- Question 1: Which managerial roles (as described by Mintzberg) do PA department chairs report using as administrators?
- Question 2: Which managerial roles (as described by Mintzberg) do PA department faculties report department chairs using as administrators?
- Question 3: What is the difference in use of managerial roles as reported by PA department chairs and PA department faculty?
- Question 4: Which managerial roles (as defined by Mintzberg) do PA department chairs perceive as important in their work as a department chair?
- Question 5: Which managerial roles (as defined by Mintzberg) do PA department faculties perceive as important in the work of a department chair?
- Question 6: What is the difference of importance PA department chairs place on Mintzberg's managerial roles versus PA department faculty?
- Question 7: What is the difference of importance experienced PA department chairs place on managerial roles (as defined by Mintzberg’s model) versus novice PA department chairs?
• Question 8: What is the difference in use of managerial roles as reported by experienced and novice PA department chairs?

Delimitations

The primary concern of this study was to explore PA department chair roles from two different population perspectives: PA department chairs and PA department faculty. The research was limited to the collection of data using on-line, self-administered surveys and a limited number of telephone interviews that were dependent upon the participants’ willingness to respond. Primary study variables were defined below:

• **PA department chair**: full-time administrator of a physician assistant department/program. Experienced = greater than six years of PA department chair/program service; novice = less than or equal to six years of PA department chair/program service.

• **PA department faculty**: full-time faculty with titles of academic or clinical coordinator.

• **Roles**: defined as a common set of expectations for managers (figurehead, leader, liaison, monitor, disseminator, spokesperson, disturbance handler, entrepreneur, resource allocator, and negotiator) by Mintzberg, (1973).

Definition of Terms

The following definitions are intended to clarify meaning of terms used in the professional literature:

• **Physician Assistant (PA)**: According to the American Academy of Physician Assistants (2003), PAs practice medicine supervised by licensed physicians. PAs are qualified to give physical exams, order and administer tests, make diagnoses,
and treat illnesses. A physician assistant is educated to provide services that would otherwise be provided by a physician.

- **Association of Physician Assistant Programs (APAP):** A national organization representing physician assistant educational programs in the United States. APAP's mission is to assist PA educational programs in the instruction of highly educated physician assistants. The association offers an array of services for PA programs, faculty, students, and the general public aimed at fulfilling this mission.

- **American Academy of Physician Assistants (AAPA):** The only national professional organization representing more than 50,000 physician assistants, all state chapter organizations, and student societies. Its goal is to enhance the role and utilization of PAs, promote the PA profession to the public, ensure PA competency through continuing medical education and certification, and conduct research on the PA profession.

- **Accreditation Review Commission on the Education of Physician Assistants (ARC-PA):** A national organization which accredits all entry-level physician assistant programs in the United States. Students must graduate from an accredited program in order to qualify for the national certification examination. A passing score is required by all states for licensure.

- **Physician Assistant Department or Unit:** An administrative division located in a college, university, hospital, or on a military base whose entry-level programs are accredited by the ARC-PA to educate and prepare PAs for licensed professional practice and national certification.
• **Entry-Level Physician Assistant Program:** An ARC-PA accredited physician assistant educational program that trains students to become licensed physician assistants.

• **Physician Assistant Department Chair:** A program-level administrator or manager of an academic physician assistant program. As administrator, this person is responsible for the daily operations of the program including budgetary, curricular, and accreditation issues, supervising personnel, representing the department on various issues, and assuring the mission of the program is carried out. For the purposes of this study, this person may be titled the physician assistant department chair, program director, assistant dean, or dean.

• **Physician Assistant Department Faculty:** A program-level faculty member with the primary responsibility of teaching within the PA Department with additional responsibility of academic or clinical coordination.

*Significance of the Study*

Many studies have been published on the role of the department chair, however, few have focused on the chairpersons of various health professions, and none have focused on the PA department chair (Nardi, 1996; Seagren et al., 1993; Smith, 1999; Wolverton et al., 1999; Anderson, 1981; Alexander, 1990; Beckett, 1997; Miller, 1996; Perry, 2000; Soto, 1991; Tyson, 1999; Uschold, 1990). From these studies one can deduce the PA department chair is much different from the traditional liberal arts and science chair as he/she is responsible for accreditation, assuring clinical competence of students and faculty, keeping in step with technological innovation, and incorporating the rapid changes of medicine into an increasingly crowded curriculum.
This study helps to fill a gap in the literature in regard to PA department chairs by providing the first comprehensive set of data about PA chairs. Although it was unknown what influence the results of this study will have, it was hoped that current and potential PA department chairs will have a better understanding of their role. Additionally, the profession has an additional piece of data for use in describing the profession. Other researchers may also be able to use information gleaned from this study to intervene in developing better department chairs and mentoring existing faculty into department chair positions. Finally, the use of Mintzberg's model (1973) as a framework for understanding chair roles may be considered by some as a unique use of management theory in an academic environment, as it is mostly used in business management settings.
Chapter Two
Literature Review

Introduction

The department chair position is vital to the operation of higher education institutions (Dyer & Miller, 1999). This position and its level in the academic hierarchical structure require those occupying it serve as front-line managers. This fact reinforces the importance of the position and the need to have a good understanding of the job.

Various studies have been conducted regarding the role of department chairs in higher education in general (Nardi, 1996; Seagren et al., 1993; Smith & Stewart, 1999; Wolverton et al., 1999). A limited number of studies have addressed department chairs of allied health disciplines, which includes as many as thirty-five different fields of study from art, physical and occupational therapy, to radiologic technology and therapeutic recreational specialties (Anderson, 1981; Alexander, 1990; Beckett, 1997; Miller, 1996; Perry, 2000; Soto, 1991; Tyson, 1999; Uschold, 1990).

Although this review evaluated the literature regarding the department chair in general and the healthcare department chair in particular, of special interest was the physician assistant department chair. However, no studies to date have addressed the roles of chairs or program directors in physician assistant education.

Before specific department chair research can be addressed it was important to clarify the meaning of a department chair. As identified in Seagren's report (1993), and out of respect for gender, many studies today use the term chairperson or its abbreviated version, chair, for the leader of a department rather than the term chairman. On some
campuses, particularly in Commonwealth countries (i.e., the nations of the former British Empire), the individual is known as a department head, signifying a permanent position with an administrative appointment. Occasionally the individual is called a department executive officer, program director, or division director. The latter may be analogous to the position of Dean. In any case, for the purposes of this literature review and further research on the subject, department chair will be used to describe all of these titles.

Schools of Thought on Management

Department chairs can be viewed in some respects as managers. Managerial work and its related schools of thought are the subjects of a large body of literature. These schools of thought are important because they provide a framework for department chair research. Most of the contemporary views of managers are rooted in eight schools of thought including classical, great man, entrepreneurship, decision theory, leader effectiveness, leader power, leader behavior, and work activity (Mintzberg, 1973, p.8). Although the methodologies offered in each school are typically used to define managers in corporate settings, these same methodologies can be considered when defining department chairs in an academic setting.

Writers of the classical school of thought describe managerial work in terms of a set of composite functions including planning, organizing, coordinating, commanding, and controlling (Fayol, 1916; George, 1968; Mintzberg, 1980). The acronym POSDCORB has its origins in Fayol's work and stands for the following activities: planning, organizing, staffing, directing, coordinating, reporting, and budgeting (Gulick, 1937). Fayol’s and Gulick’s work continue to dominate the management vocabulary, appearing as chapters in management textbooks (Schafer, 1992), despite the fact that they
were never data-based and have never been empirically validated (Pavett & Lau, 1985). The descriptive nature of the classical school of thought is limiting in its utility because it defines what managers should do as opposed to what they do (Mintzberg, 1980).

In the "great man" school of thought one will find a wealth of details and anecdotes regarding managers, but little is revealed about managerial theory (Mintzberg, 1980). Typically, this school of thought relies on the in-depth review of writings from leaders in business, military, and politics, and can be found monthly in periodicals such as *Fortune* and *Forbes*.

The entrepreneurship school of thought (Collins & Moore, 1970) is of interest to those researching managers because the entrepreneur has the ability to start organizations (Mintzberg, 1973). It is believed if one could have a clear understanding of the entrepreneur, a great deal of knowledge about how managers work could be identified (Mintzberg, 1980). However, there is a lack of understanding of how an entrepreneur goes about doing his or her work. Unanswered questions center around whether an entrepreneur is simply an innovator, a supplier of capital, or a broker bringing together money and ideas. Hence, this school of thought, by itself, is of little utility.

Decision theorists (Simon, 1957) view management decision-making in terms that reflect more accurately the manager's real limitations. They argue that managers do not have explicit goal systems; that a most important and neglected part of the decision-making process is the step to define a problem; that alternatives and their consequences are seldom known with clarity; and that choices are made to satisfy constraints, not to maximize objectives (Mintzberg, 1980). Extending this framework, decision theorists depict managers running organizations that have programs (established procedures)
arranged in hierarchical order so that the high-level programs do the work of constructing and modifying the low-level programs that perform the basic work (Mintzberg, 1980).

The study of leadership effectiveness (Gibb, 1969) is the study of interpersonal behavior, specifically that between the leaders and the led (Mintzberg, 1980). Researchers of the leader effectiveness school, many of them social psychologists, focus not so much on the job of managing as on the person in the job. They seek to discover what set of personality traits or managerial styles lead a manager to effective performance.

The school of leader power (Dalton, 1959) concerns itself with power and influence and with the manipulative prerogatives of the leader. Writers of this school are concerned with the extent leaders have control of their environment.

Like leadership effectiveness theorists, leader behaviorists analyze (Sayles, 1964) the actual content of the manager's job by studying the behavior of the managers. They believe there are many ways in which one might go about analyzing managerial behaviors. For example, in Leonard Sayles' (1964) study in which he lived within a business organization for a period of time recording whatever seemed of interest, he describes the manager as monitor, as leader, and as participant in external work flows. Sayles claims that managers must react to pressures and introduce short-term adjustments or long-term structural changes, balancing stability and change so as to achieve a dynamic type of stability.

Work activity theory, stands at the other extreme from the classical school (Mintzberg, 1968). This is the school in which the work activities of managers are analyzed systematically, providing a number of significant conclusions about
characteristics of managerial work (e.g., various aspects of daily management activities) and work content (e.g., what managers do).

More contemporary views of management include quality management (Peters & Waterman, 1982), reengineering (Hammer & Champy, 1993) and chaos theories (Gleick, 1987). However, of all the management theories, it is Mintzberg's (1968) work (from work activity theory) that describes a model of managerial roles. Mintzberg observed the everyday activities of senior managers and offered conclusions to be compared with the limited definitions of managerial functions from the classical and human relations schools (e.g. Fayol, 1949). Mintzberg (1973) analyzed managerial activities in terms of one basic question – why did the manager do this? What emerged from this research were 10 managerial roles divided into three areas - interpersonal, information and decision-making. This model of managerial work has been very useful in working with managers in assisting them to examine how they spend their time (Mintzberg, 1973). The model also encourages a situation in which better managers give equal attention to three role categories.

As mentioned earlier, Mintzberg's theory has been replicated and supported by different research groups. Kurke and Aldrich (1983) studied top managers using structured observation and unstructured interviews in an attempt to replicate the constructs of Mintzberg's theory. Their results were consistent with Mintzberg's role delineation and provided support for Mintzberg's conclusions on the nature of managerial work based on interpersonal, informational, and decisional roles.

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*Review of the Department Chair Literature*

Department chair research is mostly descriptive in nature. In an effort to elucidate the chair role, a key report was published by Seagren et al (1993). Seagren et al depicts the academic chair as ambiguous and unclear in terms of authority (Seagren et al., 1993). In this report, researchers identified areas essential to the understanding of a department chair including roles and responsibilities, types of academic chairs, evaluation and faculty development issues, leadership issues, and political issues. The work in Seagren's report represents the breadth of research available on department chairs and will be discussed later.

According to Dyer and Miller's analysis (1999), the chair position evolved out of the Progressive era (i.e., an era of business expansion and work reform) of the late 1800s and early 1900s, becoming one of the most important and critical on any college campus.
Department chairs either make or carry-out approximately 80 percent of all decisions on college campuses (Roach, 1976). They are primarily responsible for both the budgeting and planning activities of their academic departments, overseeing key decisions of the daily operations of the department, managing personnel (both clerical and professional), and involvement in all aspects of departmental student matriculation (Dyer & Miller, 1999).

Vacek (1997) explains that although little research has been conducted on the historical development of the department chair, a review of the existing literature and research indicate that the chair position was first formalized during the period of 1870 to 1925. This is further verified by Rudolph (1962) who described, by 1888, the university situation as one in which "professors in colleges were already on the road to being teaching fellows charged with the ultimate responsibility of administration." During this time, head professors or masters of departments usually governed in an autocratic manner (Auclair, 1990). Later, when Charles Eliot introduced the chairmanship at Harvard in 1889, democratic departmental leadership emerged (Auclair, 1990).

Significant events that influenced the development of the chair position were the reconstruction period, the Morrill Acts, professional education, and a move from society based on agriculture and land interest to one based on industry (Dyer & Miller, 1999). Although the reconstruction period and the Morrill Acts played a major role in changing institutions of higher education, it is the role played by business, industry, and politics that had the most impact on the development of the chair position (Dyer & Miller, 1999). Colleges and universities were expected to respond to new demands in industry and the
workforce. The growth in the development and numbers of chair positions grew out of a need for more specialized forms of education (Dyer & Miller, 1999).

Vacik and Miller's (1998) study further identifies the critical incidents and factors which influenced the development of the department chair position in higher education from 1870-1925. Findings from this study point to three other factors leading to the formalization of the chair position including federal legislation supporting vocational education, increased attention to fund raising and private endowments, and the overall increase in bureaucracy needed to manage academic departments.

Traditional chair research reveals that most department chairs are initially teachers and researchers and only make the switch to a chair position after having a desire to lead a department or program to a new level, or in most cases, to fill a void in the department leadership structure. Traditional department chairs (mostly in liberal arts and sciences) are often elected by the faculty from within the department faculty ranks, and the faculties within those ranks tend to elect the lesser of two evils (e.g., neither choice is absolutely acceptable, but one individual may have less biases as compared to the other individual). Promotion to chair is typically not viewed as prestigious, but as switching to the “dark side” of administration.

Academic department chairs have a pivotal position in the organization of higher education (Seagren et al., 1993). As mentioned previously, an estimated 80 percent of all university decisions are carried out by the department chair (Roach, 1976), which is also the most common entry point into the hierarchy of academic administration (McDade, 1987). The importance of a department chair is emphasized by Peltason (1984), "an institution can run for a long time with an inept president but not for long with inept
chairpersons." At the very least, department chairs must be diplomatic, fair, accessible, ethical, well-informed, objective, patient, flexible, politically sensitive, crises and conflict managers, knowledgeable in academic law, and multi-task oriented. All of these descriptors reinforce the complexities associated with the role of a department chair.

Over the last 20 years, researchers reported on the roles and responsibilities of department chairs. For example, Tucker (1984) presented findings on the various roles, responsibilities, and powers of the department chair including departmental governance, faculty recruitment and selection, student recruitment and selection, preparation of budget, preparation of annual reports, and professional development.

Bennett (1989) has identified types of department chairs, which include those called hopefuls, survivors, transients, and adversaries. The hopeful chair is typically new to the position, recognizes that a difference can be made and can see the tension of role ambiguity as a positive issue, masking or even creating opportunities. The survivor, one who typically has more than 10 years of service as chair, is more likely to have been selected by an administrator and to belong to larger, stable departments. While some survivors provide organizational continuity and perspective, others have lost their capacity to enable others and need to be replaced. The transient is typically one who is elected to or has rotated into the position of department chair. The transient is typically just serving his or her time. The adversarial department chair typically emerges from an unhappy and contentious faculty and sees administrative decisions as being aimed at him or her personally.

Creswell et al (1990) studied 200 department chairs in 70 colleges and universities. Study participants identified 15 strategies for developing a department,
exercising leadership, and reaching out to faculty, which were further grouped into three overall themes (or categories): chair preparation, academic leadership, and creation of positive work environments. Learning about the roles and responsibilities in the department/university, balance between professional and personal life, and preparing for a professional future were identified as important chair preparation activities. In the academic leadership category, chairs identified the importance of establishing a collective department vision, developing faculty ownership of the vision, initiating changes slowly, allocating resources of time, information, and assignment to encourage vision, and monitoring the progress toward vision achievement. Finally, regarding the creation of a positive work environment, chairs identified establishing an open atmosphere to build trust, listening to faculty needs and interests, collaboratively setting goals, providing feedback to faculty, representing faculty to colleagues and senior administrators, serving as a role model and mentor, and encouraging and supporting faculty as important strategies. This study also identified ways of applying strategies to the above listed categories, such as making personal commitments to developing new faculty members, gathering information on faculty member performance, clarifying goals and objectives, observing the performance of the faculty member, and arranging for resources and feedback.

Gmelch (1991) studied 808 department chairs at over 100 universities and colleges to explore the department chairs’ views on use of time and role orientation. The majority (60%) of the department chairs perceived themselves as faculty, while 23 percent perceived themselves as administrators. The author also noted that 80 percent of
department chairs believed that their department responsibilities should be reduced so that they could devote more time to research, writing, and other interests in their field.

Carroll (1991) studied the career paths of department chairs in 101 Carnegie Research and Doctoral institutions. Responses from 565 chairs were received (70%) and analyzed based on discipline, gender, and method of hiring (e.g., appointed by an administrator, elected). Carroll stratified disciplines as hard (basic science) and soft (liberal arts) academic disciplines and pure (sciences) and applied (engineering, health professions). Hard science chairs were younger and less likely to return to a faculty position after serving as a chair. Applied chairs were older, responsible for smaller departments, and were more likely to leave institutions after service in the chair position. Although few female chairs were identified (9%), they were younger than male chairs at the time of appointment and were more likely to be hired in an administratively oriented hiring system.

Seagren and Miller (1994) studied a population of 3,000 community college department chairs. Seagren and Miller reported the average community college department chair was between 45 and 54 years of age, predominantly male, almost exclusively white, and had experience teaching in the community college. Chairs reported that they spent 30-40 hours per week on chair responsibilities and the majority reported an additional salary stipend for their chair activities. They also reported release time from teaching and the majority held the position on a permanent, rather than term, basis.

Wentz’s (1995) research explored and described the commitment of department chairs to the role. The question shaping the study was the nature of commitment in
department chairpersons; how they defined commitment in terms of the role; what
identifiable characteristics they had; and how they thought their commitment behaviors
would be observed. The results of this qualitative study suggested that chairs adopt one
of two levels of commitment: caretakers, who demonstrated a strong approach to the
position but maintained a faculty identification; and leaders, who balanced their own
inner-directed needs and adopted an administrative frame of reference.

In Wentz's study, the commitment of department chairs was best explained by a
three-part sequential framework consisting of antecedents, the commitment cycle, and
outcomes. Antecedents encompassed both contextual and personal factors. The
commitment cycle was comprised of motivation (interest), commitment (dedication), and
personal satisfaction with each factor being dependent on the other to maintain the
process. The outcomes for chairs are that they leave or stay, a decision dependent on
several factors: personal satisfaction; continued support of the faculty and dean; and
availability of other options.

Nardi (1996) examined the role, function, and preparedness of the academic
department chairperson in higher education and identified roles and functions that
chairpersons perceived as important. The study also identified the chairs' perceptions of
their level of ability to perform the roles and functions. Nardi (1996) concluded that
there is a lack of pre-service and in-service training for department chairs and creating a
formal mentoring arrangement for new chairs would improve their ability to address their
multiple roles. Likewise, Miller and Seagren (1997) in their study of 3,000 department
chairs in community colleges determined the strategies for coping with job challenges.
Department chairs identified twenty-four strategies. The top five coping strategies were
conducting curriculum reviews, building stronger business and industry partnerships, balancing personal and professional activities, networking with other chairs, and assessing future employment trends.

The health profession literature regarding department chairs is also descriptive in nature and overall there is a dearth of information. In general, health profession chairs are different than other types of academic chairs. Rather than having a doctoral degree in their discipline, virtually all health profession chairs have clinical credentials, because it is a requirement of health profession accrediting bodies. Much of their time is spent coordinating clinical education provided by part-time clinical faculty at hospital and clinical sites distant from their unit.

Scott (1980) described the role and responsibilities of department heads and the effects of changing conditions in higher education in reference to nursing education. The author described an academic health department as an organizational unit as well as an intellectual discipline where the department head is expected to serve in four roles: leader, manager, scholar, and “first among equals” (i.e., a peer who is serving a limited term as head of the group). The department head is further depicted as principally concerned with three areas of potential change: mission, faculty, and curriculum. Major issues for nursing department heads include the rewards a department head either controls or influences, personal qualities and leadership qualities, future of higher education, role ambiguity, stress, maintaining quality, and indicators of organizational vitality.

Sieg (1986) identified chair functions in occupational therapy departments. These included dealing with data (finances and programs), people (students, faculty, support
personnel, the dean, and other administrators), and things (department reports, space, equipment, and materials).

Rohrer (1990) surveyed academic allied health department chairs (directors) concerning their leadership perceptions, role definition and priorities, performance evaluation process, role preparation and orientation experiences, and perceptions about the potential utility of enabling resources. Respondents' perceptions of the importance of 35 leadership behaviors and activities yielded a seven-factor structure. The factors identified were not much different from results of other research associated with the role definition of the academic chair (e.g., department governance, faculty recruitment) (Tucker, 1984).

Kippenbrock, Fisher, and Huster (1994) surveyed nursing department chairs about their roles and their department functions. Chairs defined their roles mostly in the academic realm, and they were most satisfied with their role as teacher. Chairs also reported that they lacked the necessary preparation and experiences in several academic and management functions. Furthermore, chairs expected their successors would need more experience than themselves for all functions of the chair, except teaching and advising students. Chairs also believed the most qualified person in the department to function as a chair (e.g., vice chair, senior faculty) did not have the required amount of experience and only 67 percent of the respondents could identify a potential successor from within the department.

West’s (1995) study determined criteria of effective leadership for allied health department chairs in academic health centers, research, doctoral, and master's universities. The premise of this research was based on the fact that administrative
leadership from academic department chairs is essential if the allied health professions are to assume an appropriate role in a changing environment. A three-round Delphi process was used to determine the criteria for effective leadership for allied health department chairs. Twenty-five behaviors were identified as useful in guiding leadership development, staffing, and evaluation programs. Eight of the behaviors relating to mobilizing, enabling, monitoring, and rewarding faculty activity were identified as important to leaders at academic health centers.

In Holt's (1998) study, the primary purpose was to develop a comprehensive demographic database of dental hygiene education administrators and to examine their academic professional profile. A cross sectional survey design was employed and requested United States dental hygiene education administrators to respond to specific questions regarding demographic characteristics, professional academic profile, and extent of management theory background. The majority of administrators were Caucasian (95.6%), female (87.6%), dental hygienist (87.6%), with a mean age of 47 years. The highest degree earned was a master's degree (64.5%) with a specialization in education (47.7%). Additionally, 87.5 percent had some form of educational management theory background, and 22.6 percent held the rank of full professor.

Tyson's (1999) study, analyzing archival data from the 1992 International Community College Chair survey, examined the leadership roles of community college nursing and allied health department chairs relative to the independent variables of gender, prior business experience, and the receipt of a stipend. Gender and prior business experience of the nursing and allied health chairpersons had a significant influence on
leadership perceptions. However, the leadership perception scores were not influenced by the receipt of a stipend.

Finally, Perry’s (2000) study described the roles, responsibilities, and characteristics of physical therapy department chairs as perceived by physical therapy unit administrators and teaching faculty in accredited, entry-level physical therapy programs. Physical therapy unit administrators tend to be older, more experienced, carry higher academic rank, and do less clinical practice than teaching faculty. The more important roles of the department chair focused on faculty and department administration, whereas less important roles tended to focus on the student. The most important roles selected by administrators and teaching faculty included acting as faculty advocate to higher administration, preparing the physical therapy department budget, evaluating faculty performance to determine tenure and promotions, and monitoring accreditation standards. The least important roles helping students register, scheduling classes, maintaining accurate student records, and selecting students.

In Perry’s study, both administrators and teaching faculty agreed on the five most and least important characteristics of a department chair. The most important were an ability to listen carefully and communicate effectively; an honest and trustworthy character; a creative, responsive, and personal interest in others; and a helpful and supportive concern for others. Faculty were less concerned whether the department chair followed the advice of others, became angry, was friendly and agreeable, always followed rules and procedures, or had a good sense of humor.
Physician Assistant Education

Research on physician assistant (PA) department chairs is lacking, mostly because the profession is relatively new and without the benefit of scholars in the field. Nevertheless, PA professional roots in higher education can be first traced to Duke University in 1965, followed by Alderson Broaddus College in West Virginia, the University of Colorado in Denver, and the University of Washington in Seattle (Hooker & Cawley, 1997). The original PA program curriculum was a two-year, competency-based, generalist program that aimed to prepare clinicians (mostly medical corpsman retired from the Vietnam War) to perform medical diagnostic and patient management tasks usually done by physicians (Oliver & Whitten, 1988). After students meet basic science prerequisite requirements, the modern PA professional curriculum provides 12 months of classroom instruction covering the clinical medical sciences, followed by 12 months of rotating clinical rotations, culminating in a two-month primary care office-based clinical experience, known as a preceptorship. Graduates of programs are usually awarded a certificate of completion, and depending on the college or university, an associate, bachelor's, or master's degree. Accreditation standards provide recommendations for the general administrative, organizational, and curricular structure of PA programs and additionally outline general responsibilities of program faculty.

Early PA program faculties were mostly physicians, basic scientists, psychologists, and other health care providers. As the profession matured, clinically trained PAs made the switch from clinician to academician, in most cases without any advanced degree or training in education. Today the majority of PA faculties are PAs with bachelor's or master's degrees. Only 11 percent of non-administrative faculty and
38 percent of department chairs or program directors have doctoral degrees and all are in other fields as the official PA terminal degree is the bachelor's degree (Simon, Link, & Miko, 2000). As more programs offer master degrees, the terminal degree will likely change to the master level.

Like other higher education programs, a department chairperson or program director provides administrative oversight for PA programs. Individuals who initially assume this role usually have no academic or administrative training. Likewise, very little is known about the characteristics, role, and function of PA chairs or program directors.

**Summary**

As reviewed in this chapter, a significant amount of literature exists regarding the department chair in general, less so for the health profession chair, and none for the PA department chair. Overall, the literature that is available is descriptive in nature. The literature summarizes the historical development of the chair position, provides a clear picture of who is involved in the chair position and the type of organizations chairs serve, and focuses on various roles, responsibilities, skills, and challenges facing chairs. However, there are gaps in knowledge about specific department chairs (e.g., PA), appropriate training activities for chairs, and best practices and benchmarking of department chair excellence (Dyer & Miller, 1999).
Chapter Three

Methods

Introduction

This chapter presents the research design, research subjects, instrument design and use, study procedures, proposed analyses, and human subjects concerns. This study explored PA department chair roles from two different population perspectives: PA department chairs and PA department faculty.

Mintzberg's model was incorporated into the study design (discussed later) as a framework for understanding the work of PA chairs. Therefore, the study methods were developed to determine managerial roles PA department chairs used and perceived as important as compared to Mintzberg's (1973) model.

Based on the information in the literature and the need for further research in this area, this study proposed to explore PA department chair roles from two different population perspectives: PA department chairs and PA department faculty.

- Question 1: Which managerial roles (as described by Mintzberg) do PA department chairs report using as administrators?
- Question 2: Which managerial roles (as described by Mintzberg) do PA department faculties report department chairs using as administrators?
- Question 3: What is the difference in use of managerial roles as reported by PA department chairs and PA department faculty?
- Question 4: Which managerial roles (as defined by Mintzberg) do PA department chairs perceive as important in their work as a department chair?
• Question 5: Which managerial roles (as defined by Mintzberg) do PA department faculties perceive as important in the work of a department chair?

• Question 6: What is the difference of importance PA department chairs place on Mintzberg’s managerial roles versus PA department faculty?

• Question 7: What is the difference of importance experienced PA department chairs place on managerial roles (as defined by Mintzberg’s model) versus novice PA department chairs?

• Question 8: What is the difference in use of managerial roles as reported by experienced and novice PA department chairs?

Research Design

This research study was descriptive, explorative, cross-sectional in nature, and used both quantitative and qualitative methods. It utilized quantitative on-line instruments to measure PA department chair administrative roles (defined by Mintzberg) as perceived by PA department chairs and faculty in entry-level PA programs, which are accredited by the Accreditation Review Commission on the Education of Physician Assistants (ARC-PA).

Additionally, qualitative data were collected from six department chairs, one from each consortium as defined by the Association of Physician Assistant Programs. These six chairs were randomly selected to further evaluate the nature of their managerial role (defined by Mintzberg) interactions they experience with other department chairs, deans, faculty, and students at their institution. All six chairs were interviewed on the telephone by the researcher and asked the series of statements in Appendix A.
A mixed method approach was selected for two main reasons: the survey data collection methods served to quantify perceptions in regard to role use and importance for both chairs and faculty; and the telephone interviews provided another method to verify role usage as reported by chairs on the quantitative survey. These two approaches were viewed as complementary in that, by their use, overlapping and different facets of managerial role use could possibly emerge.

Subjects

After University of Missouri-St. Louis, Wichita State University, and Association of Physician Assistant Programs Institutional Review Board approvals, subjects were surveyed and included full-time primary administrators of ARC-PA accredited, entry-level physician assistant programs, and assigned titles such as chairperson, director, assistant dean, or department head. Additional subjects included full-time faculty from ARC-PA accredited, entry-level physician assistant programs, and assigned titles of clinical and academic coordinator. Therefore, the study population for this research project consisted of PA department chairs and PA department faculty. There were 127 individuals who were listed as PA department chairs and 214 listed as PA department faculty as defined above. Those who completed and submitted the instrument were considered the examined sample.

Survey Instrument Design and Use

A review of instruments to determine the perceptions and use of managerial roles was conducted in order to determine their appropriateness to this study. The survey instruments developed were based on the underlying tenants of Mintzberg’s managerial model. Each survey was modeled after the International Community College Chair
Survey (Seagren, et al., 1994). Adaptations were made and items were added and deleted after a review of the literature and after consultation with four current PA department chairs from existing PA programs (Lau, Newman & Broedling, 1980) (Appendix B).

The instruments developed for use in this study were titled "Physician Assistant Education Chairperson Survey" (hereafter referred to as the department chair survey) and "Physician Assistant Education Chairperson - Faculty Survey" (hereafter referred to as the faculty survey). The survey instruments were divided into different sections and can be found in Appendix C.

The first three sections of the department chair survey requested background information on the instructional unit, campus, and department chair including departmental student and faculty characteristics, age of academic unit, degree type offered, other health profession disciplines within their institution, accreditation status, and funding. Other items in these sections included personal information about the department chair including age, gender, experience, appointment status, salary, highest degree earned, and long-term goals. The fourth section requested respondents to identify their perceptions of importance and time spent on various managerial roles (as defined by Mintzberg, 1973) in relation to their current position using a five-point Likert scale (with 1 being not important and 5 being very important) and indicating percentages of time, respectively.

The first section of the faculty survey requested faculty to indicate how important Mintzberg managerial roles were in relation to the PA chair position (generically, not their own chair) and the average amount of time a chair should spend functioning in Mintzberg's roles (generically, not their own chair) using a five-point Likert scale (with 1 being not
important and 5 being very important) and indicating percentages of time, respectively. The second section requested demographic information, PA faculty and administration experience, and educational background.

Draft versions of the surveys were reviewed by four PA department chairs and the researcher's doctoral advisor (refer to Appendix B for results of review). The first revision incorporated the researcher's advisor's comments. It was suggested from this review that a small number of current PA department chairs review the surveys for face validity. Four department chairs were selected from two PA Program regions in the United States: Midwestern and Heartland. The department chairs who participated were from Saint Louis University, University of Texas-Southwestern, University of Texas-San Antonio, and University of Texas-Galveston. After reviewing a brief synopsis of the study and research questions, the four department chairs were asked to:

- Review the surveys.
- Provide feedback on the content and organization of the surveys and relevance to the research questions.
- Suggest items that should be added to the surveys.
- Provide feedback on the clarity of survey items.

Recommendations from the reviewers were considered and some incorporated into the final version of the surveys in Appendix C. Since Mintzberg’s managerial model constructs have been used in previous studies (Seagren, et al., 1994; Lau, Newman & Broedling, 1980), no other evaluation of reliability and validity was undertaken.
Study Procedures

An on-line survey method was utilized for convenience of the participants and ease in administering the surveys as opposed to mailed instruments. The questionnaires were distributed to PA unit administrators and faculty through an email message, which included a single on-line interface link to the survey housed on the Wichita State University server (the place of employment of the researcher). Data were collected from the online surveys and captured in a data file format (CSV) and stored within a private folder on the Wichita State University server. Access to the data was limited to University and Departmental administrative personnel. After the data were captured they were further downloaded into SPSS (version 12.0) for statistical analysis.

The names of 127 current physician assistant department chairs and 214 PA department faculty, as defined earlier, in the United States were collected from and verified by the Association of Physician Assistant Programs (the organization which collects and distributes department chair and faculty contact information from accredited physician assistant programs). After verification, their e-mail addresses were obtained for survey distribution. All department chairs and faculty identified with e-mail addresses had Internet access. Each subject received an e-mail letter, which included a link to the appropriate online survey. The electronic initiation of the surveys was from the researcher's personal office computer at Wichita State University in Wichita, Kansas. The e-mail letter included the purpose of the study, a statement assuring confidentiality, and a telephone number for use in the event of questions or technical difficulties (Appendix D). To serve as a reminder and to bolster the response rate, a follow-up e-mail and survey link was resent to all subjects two weeks after study initiation. Study
subjects were reminded to complete the survey or thanked if already done so. When a subject chose not to complete the survey in an electronic format (n = 2), the researcher mailed the survey to the subject with instructions on how the survey could be returned (e.g., regular mail, fax).

Qualitative data were collected from six department chairs, one from each consortium as defined by the Association of Physician Assistant Programs. These six chairs were randomly selected to further evaluate the nature of their managerial-role (as defined by Mintzberg) interactions they experience with other department chairs, deans, faculty, and students at their institution. All six chairs were interviewed on the telephone (after the surveys had been distributed) by the researcher and were given a series of statements described in Appendix A. Prior to the interview, the researcher contacted each chair by e-mail to assure his/her willingness to participate and arranged a time for the interview. The interview statements, statement of study purpose, and consent instructions were e-mailed or faxed to the chair prior to the interview.

After the data collection phase was completed (four weeks after study initiation), all quantitative data were downloaded from the data file (CSV) into SPSS for statistical analysis. Qualitative data were also gathered and coded at this time for analysis.

Analyses

Data analysis was completed utilizing the Statistical Package for the Social Sciences (SPSS 12.0 for Windows). The data were subject to descriptive and parametric statistics. The alpha level was set at 0.05.
To assist in managing the data, descriptive methods were used, which was an essential first step in understanding the results and moving to the inferential methods used to test the implied hypotheses of the study (Blessing, 2001).

Research questions one and two were analyzed by determining mean percentages of Mintzberg's managerial role use as perceived by PA department chairs and faculty. Research question three required a two-sample $t$-test to see if there was a significant difference in managerial roles use between PA department chairs and faculty. Research questions four and five required frequency statistics to determine importance ratings of Mintzberg's managerial roles in relation to PA department chair work as perceived by PA department chairs and faculty. Research questions six and seven used a chi-square test to determine if there were relationships of importance ratings between PA department chairs and faculty. Research question eight required a two-sample $t$-test to see if there was a significant difference in managerial roles use between experienced and novice PA department chairs. A chi-square statistic was selected to analyze research questions six and seven as both questions required a test of association of ordinal data to determine whether faculty and chairs had similar proportions of answers for each role category. A $t$-test was selected to analyze research questions three and eight as both questions required a test of mean difference for each role category, which was expressed as ratio data. A more global statistic (e.g., MANOVA) was not required as research questions three and eight did not require evaluation of the inter-relationships between roles. This method of data analysis has been used employing a similar instrument (Seagren et al., 1994). Telephone interview data were coded for commonalities and compared to Mintzberg role categories and reported as frequencies.
Human Subjects Concerns

Data were collected from human subjects through survey methods and personal interviews for the sole purpose of this research project and not for any other purpose. Subject data contained personal information; however, the researcher did not match survey data with subject names when downloading completed data. Subjects were not required to identify themselves. Furthermore, surveys were not coded, so they could not later be matched to names. This process minimized harm to study subjects, protected their privacy, and prevented discrimination of any kind. Since participation in the study was not likely to harm, frighten, embarrass, or negatively affect subjects, a separate consent form was not required explaining possible untoward affects. Consent was implied if the survey was completed and submitted to the researcher. However, consent was further verified after the subject acknowledged their understanding of the study purposes by so indicating on the online survey. Study subjects did not incur any personal expense in connection with this research project. All data were maintained in the researcher's office at Wichita State University in a locked office.

Although no direct benefit was available for participation in this study, results of the study will be submitted for presentation and/or publication in a peer reviewed forum frequented by PA chairs and faculty after completion.
Chapter Four

Results and Data Analyses

Introduction

The primary purpose of this study was to determine managerial roles PA department chairs used and perceived as important as compared to Mintzberg's (1973) managerial model. Physician assistant faculty served as a comparison group and rated the same Mintzberg constructs in regard to PA department chairs. Quantitative data gathered consisted of ratio and ordinal data as reported by PA department chairs and faculty. Based on the constructs of Mintzberg's model, the data analysis involved comparing mean percentages of managerial role use as reported by PA chairs and faculty. Additionally, importance ratings of Minzberg’s model provided by PA department chairs and faculty were evaluated for similarity between groups. Telephone interviews were also conducted with six department chairs (randomly selected from each consortium as defined by the Association of Physician Assistant Programs) to further evaluate the nature of their managerial role interactions they experience with other department chairs, deans, faculty, students, and community partners (Simon, Link, & Miko, 2000).

The on-line surveys were distributed electronically through e-mail to 127 PA department chairs and 214 PA faculty (total target population, n=341). Four weeks after the study was initiated, telephone interviews (using a standard protocol, appendix A) were conducted with six department chairs over a two-week period. Telephone interviews were coded by hand for the three major managerial role categories (i.e., interpersonal, informational, and decisional) and recorded in a tabular fashion. Data from the interviews were used to further explain research questions 1-3.
The returned on-line survey responses were captured in a comma-separated-value (CSV) file on the researcher’s university server. Once the data collection phase was complete, the CSV data were imported into an Excel spreadsheet, edited, and then imported into SPSS version 12.0 for analysis.

Seventy-seven department chairs completed the on-line survey, which corresponded to a 61 percent response rate. Likewise, 94 faculty returned a completed survey, corresponding to a 44 percent response rate. Therefore, 171 subjects were included for analysis, which represented 50 percent of the target population.

Descriptive Statistics

Demographic Profile

The survey was arranged to collect more extensive background data from chairs as opposed to faculty. Therefore, data summarized for this section focused mostly on chairs, but provided faculty comparisons when available. Furthermore, to assess whether these data were comparable to the current make-up of chairs and faculty in the United States, a comparison was made to the national data reported in the most recent version of the Annual Report of Physician Assistant Educational Programs (Simon, Link, & Miko, 2003).

Basic demographic data were collected on chairs and faculty. Descriptive statistics were used for both groups to assess their general characteristics. Overall, both groups were homogenous in terms of their age (chairs \(\bar{x} = 47.91, \pm \text{SD } 8.42\); faculty \(\bar{x} = 45.53, \pm \text{SD } 9.23\)), years of experience (chairs \(\bar{x} = 7.87, \pm \text{SD } 7.07\); faculty \(\bar{x} = 5.82, \pm \text{SD } 4.27\)), ethnicity, and degree level. A summary of these general demographic characteristics are found in Table 2. As compared to data from Simon, Link, & Miko
(2003), nationally chairs have 5.91 and faculty have 4.23 mean years of experience, which is somewhat lower than data collected in the survey. The national ethnic make-up was similar for faculty in the categories of white (87.5%), Hispanic/Latino (2.9%), and Native American (.04%). However, for faculty, African Americans and Asians comprise more nationally at 12.5 and 2.3 percent respectively (there are no comparable data for chairs).

Table 2

*Demographic Characteristic: Chairs and Faculty*

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<tr>
<td>Asian</td>
<td>1.3</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>0.0</td>
<td></td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>2.6</td>
<td></td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>88.3</td>
<td></td>
<td>88.3</td>
<td></td>
</tr>
<tr>
<td>Multi-ethnic</td>
<td>0.0</td>
<td></td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.3</td>
<td></td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Highest Degree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>2.7</td>
<td></td>
<td>11.7</td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>65.3</td>
<td></td>
<td>75.5</td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td>30.7</td>
<td></td>
<td>10.6</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.3</td>
<td></td>
<td>2.2</td>
<td></td>
</tr>
</tbody>
</table>

Degree level is similar for chairs when compared to national data as there are 3.4 percent with baccalaureate degrees, 69 percent with masters, and 27.6 percent with doctorates. Faculty were somewhat different in regard to degree level nationally with 24.4 percent having baccalaureate degrees, 59.9 percent with masters, and 13.4 percent
with doctorates. There are no comparable national data for chairs and faculty in terms of age.

Specific characteristics of PA department chairs and their PA instructional unit and associated campus are listed in Tables 2, 3, and 4 respectively. On average the PA chair had seven years (± SD 7.75) of prior PA faculty experience and 12 years (± SD 8.25) of full-time practice as a PA. Very few reported prior administrative experience in PA education or other higher education fields. More than 30 percent indicated that within the next five years they will either retire or move to a higher position in the same or different institution (Table 3). There are no comparable national data for information in Table 3.

Table 3

*Department Chair Characteristics (n=77)*

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
<th>Mean (± SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td>--</td>
<td>87,343 (13,128)</td>
<td>56-115,000</td>
</tr>
<tr>
<td>Hours worked as chair per week</td>
<td>--</td>
<td>48.68 (10.05)</td>
<td>20-85</td>
</tr>
<tr>
<td>Years PA faculty member</td>
<td>--</td>
<td>7.48 ( 7.75)</td>
<td>0-34</td>
</tr>
<tr>
<td>Years in other PA administrative position</td>
<td>--</td>
<td>1.48 ( 2.88)</td>
<td>0-13</td>
</tr>
<tr>
<td>Years as a full-time clinical PA</td>
<td>--</td>
<td>11.78 ( 8.25)</td>
<td>0-30</td>
</tr>
<tr>
<td>Percent identified as a PA</td>
<td>92.0</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Prior higher education experience (not PA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty member</td>
<td>26.3</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>20.8</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Professional plans in next five years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay at the same PA program</td>
<td>61.8</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Move to another PA program</td>
<td>3.9</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Move to position same institution</td>
<td>22.4</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Move to position different institution</td>
<td>5.3</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Retire</td>
<td>3.9</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>
Chairs reported their instructional unit was located within a college or school (82%), fully accredited (90%), in operation for about 15 years, with a mean of 5.61 full-time and 6.60 part-time faculty. Mean class size was approximately 38 full-time and 5 part-time students (Table 4). As compared to data from Simon, Link and Miko (2003), nationally 89 percent of chairs reported their instructional unit was located within a college or school, which is comparable to the department chair survey data. However, nationally chairs reported 7.3 full-time faculty per program (slightly higher than the department chair survey data) and a class size of 35.5 full-time students (comparable to the department chair survey data) and 15.3 part-time students (higher than the department chair survey data). There are no comparable data for part-time faculty, years unit in operation, and accreditation status.

Table 4

*Instructional Unit Characteristics Reported by Chairs (n=77)*

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
<th>Mean (+/- SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student class size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>--</td>
<td>38.19 (14.6)</td>
<td>12-85</td>
</tr>
<tr>
<td>Part-time</td>
<td>--</td>
<td>4.67 (15.6)</td>
<td>0-105</td>
</tr>
<tr>
<td>Full-time faculty</td>
<td>--</td>
<td>5.61 (2.3)</td>
<td>2-16</td>
</tr>
<tr>
<td>Part-time faculty</td>
<td>--</td>
<td>6.60 (15.7)</td>
<td>0-130</td>
</tr>
<tr>
<td><strong>Years unit in operation</strong></td>
<td></td>
<td>14.59 (11.7)</td>
<td>1-36</td>
</tr>
<tr>
<td><strong>Instructional Unit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freestanding on campus</td>
<td>11.7</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Within a school/college on campus</td>
<td>81.8</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6.5</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td><strong>Accreditation status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisional</td>
<td>7.8</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td>89.6</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Probation</td>
<td>2.6</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>
As far as the campus characteristics were concerned (Table 5), chairs reported the three largest health science programs offered at their institutions as PA, nursing, and physician education.

Table 5

*Campus Characteristics Reported by Chairs (n=77)*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean(+- SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three largest health programs on campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>56</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>35</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>31</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Campus size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time students</td>
<td>--</td>
<td>--</td>
<td>7259 (9596)</td>
<td>300-42,000</td>
</tr>
<tr>
<td>Part-time students</td>
<td>--</td>
<td>--</td>
<td>2054 (3346)</td>
<td>0-15,000</td>
</tr>
<tr>
<td>Full-time faculty</td>
<td>--</td>
<td>--</td>
<td>661 (1265)</td>
<td>22-8,500</td>
</tr>
<tr>
<td>Part-time faculty</td>
<td>--</td>
<td>--</td>
<td>266 (389)</td>
<td>0-2,000</td>
</tr>
<tr>
<td>Chairpersons</td>
<td>--</td>
<td>--</td>
<td>38 (69)</td>
<td>1-500</td>
</tr>
<tr>
<td>Accrediting Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>--</td>
<td>5.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Middle States</td>
<td>--</td>
<td>29.9</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Southern Association</td>
<td>--</td>
<td>23.4</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>North Central</td>
<td>--</td>
<td>31.2</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Northwest Association</td>
<td>--</td>
<td>6.5</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Western Association</td>
<td>--</td>
<td>3.9</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Campus instruction Focus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Liberal Arts/Sciences</td>
<td>--</td>
<td>13.3</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>LAS with Professional Education</td>
<td>--</td>
<td>52.0</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Professional Education only</td>
<td>--</td>
<td>34.7</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Funding Source</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>--</td>
<td>45.5</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>--</td>
<td>54.5</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

Campus enrollments averaged 7,259 full-time students and campus employment figures averaged 661 full-time faculty and 38 chairpersons. The campus educational focus was mostly liberal arts and sciences with professional education. Respondents’
programs were located in all of the accrediting regions; however, most were located in Middle States (29.9 %), Southern Association (23.4 %), and North Central (31.2 %). The majority of respondent were chairs in public institutions (54.5%). There are no comparable national data for Table 5.

Overall, the department chair and faculty survey data provided evidence that both respondent groups were homogenous in terms of their age, years of experience, ethnicity, and degree level. Furthermore, degree level, location of instructional unit, number of faculty supervised, and class size were comparable to national data provide by Simon, Link and Miko (2003).

Research Questions

The remaining portions of this chapter were arranged to answer each research question beginning with questions pertaining to role use and ending with role perceptions as compared to Mintzberg’s managerial model. Both quantitative and qualitative data were used to answer research questions 1-3 and only quantitative data were analyzed for questions 4-8.

Research Questions 1-3

- Question 1: Which managerial roles (as described by Mintzberg) do PA department chairs report using as administrators?
- Question 2: Which managerial roles (as described by Mintzberg) do PA department faculties report department chairs using as administrators?
- Question 3: What is the difference in use of managerial roles as reported by PA department chairs and PA department faculty?
Overview

In attempting to answer research questions 1-3, section 4 of the chair survey required chairs to indicate the percentages of time they spent functioning in Mintzberg’s managerial roles. Similarly, section 1 of the faculty survey required PA faculty to indicate the percentages of time a chair should spend in Mintzberg’s managerial roles. Hence, research questions 1 and 2 were analyzed by determining mean percentages of Mintzberg’s managerial role use as reported by PA department chairs and perceived by PA faculty. Research question three required a two-sample $t$-test to see if there was a significant difference in perceived managerial role use between PA department chairs and faculty. Telephone interview data were evaluated in regard to questions 1-3.

Quantitative Data

Table 6 summarizes percentages of time utilizing Mintzberg’s managerial roles as reported by PA chairs and faculty.

Table 6

Managerial Role Use: Means (+/- SD) by Chair and Faculty

<table>
<thead>
<tr>
<th></th>
<th>Chairs (% Actual Use (n=77)</th>
<th>Faculty (% Perceived Use (n=94)</th>
<th>$t$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interpersonal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figurehead</td>
<td>9.12 (9.12)</td>
<td>10.01 (7.96)</td>
<td>-.648</td>
</tr>
<tr>
<td>Leader</td>
<td>21.11 (12.29)</td>
<td>39.15 (18.10)</td>
<td>36.27</td>
</tr>
<tr>
<td>Liaison</td>
<td>8.92 (5.98)</td>
<td>8.16 (4.32)</td>
<td>.919</td>
</tr>
<tr>
<td><strong>Informational</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td>7.57 (3.55)</td>
<td>8.56 (4.51)</td>
<td>-1.504</td>
</tr>
<tr>
<td>Disseminator</td>
<td>7.60 (3.56)</td>
<td>23.87 (8.77)</td>
<td>25.82</td>
</tr>
<tr>
<td>Spokesperson</td>
<td>8.70 (4.74)</td>
<td>8.49 (3.98)</td>
<td>.310</td>
</tr>
<tr>
<td><strong>Decisional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disturbance handler</td>
<td>8.91 (5.23)</td>
<td>9.20 (4.06)</td>
<td>-.386</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>9.34 (6.55)</td>
<td>34.22 (8.81)</td>
<td>37.91</td>
</tr>
<tr>
<td>Resource Allocator</td>
<td>10.49 (6.44)</td>
<td>11.03 (5.57)</td>
<td>-.566</td>
</tr>
<tr>
<td>Negotiator</td>
<td>5.48 (3.69)</td>
<td>8.87 (4.86)</td>
<td>-4.724*</td>
</tr>
</tbody>
</table>

*p<.001
Both chairs and faculty indicated use of all roles, ranging from 5.48 to 21.11 percent and 8.49 to 18.10 percent respectively. Overall, these mean percentage scores, as compared to each other, were very similar. Roles with means greater than 10 percent, from both groups, were considered "most used" for a chair. Only two roles were identified using this cut-off point for chairs; leader and resource allocator. Three were identified for faculty; figurehead, leader, and resource allocator. The "least used" role identified by chairs was negotiator. For faculty, the "least used" role was liaison.

Combining individual role scores into interpersonal, informational, and decisional categories (Mintzberg, 1973) show chairs spending the majority of their time in interpersonal roles, while faculty perceive chairs spending most of their time in decisional roles.

However, the t-tests indicated chairs and faculty were similar in their perceptions of managerial role use, except for the construct "negotiator," which was statistically different (p < .001). In this case, faculty perceived that department chairs should spend more time in this role compared to chairs, by more than 60 percent (Figure 3).

![Figure 3. Use of Mintzberg's Roles (%) as Perceived by Department Chairs and Faculty](image)

F=Figurehead; Le=Leader; Li=Liaison; M=Monitor; D=Disseminator; S=Spokesperson; DH=Disturbance handler; E=Entrepreneur; RA=Resource allocator; N=Negotiator
Qualitative Data

While the on-line survey data attempted to collect information on chair role use in a general sense, data from the telephone interviews centered on chair interactions with peers, supervisors, faculty, students, and community partners. Likewise, chairs had the opportunity to describe the managerial roles they used when they had interactions with other chairs, deans, faculty, students, and community partners.

For their peers, the predominant interaction involved using interpersonal roles (figurehead, leader, and liaison). Examples of this typically involved “monthly chair meetings,” “collaboration with other chairs in the form of a council,” or “executive committee meetings.” For interactions involving their supervisors (typically a dean or vice president) all three role categories were reported, with decisional roles being reported more often. These included interpersonal (as defined above), informational (monitor, disseminator, spokesperson), and decisional (entrepreneur, disturbance handler, resource allocator, and negotiator). An example included “regular, periodic, or monthly one-on-one meetings.” Managerial interactions with faculty were more likely to be interpersonal in nature, with the most common venue for these interactions being regular faculty meetings. Interactions with students were typically interpersonal and with some decisional components, particularly the disturbance handler role. These interactions typically occurred in the classroom or scheduled “chair hours” where students had guaranteed time to interact with the chair. Interactions with community partners involved the use of interpersonal roles, mostly in meetings with clinical preceptors and community agencies (e.g., community health centers)
Overall, interpersonal roles were mostly used with chair, faculty, student, and community partners. Decisional roles were used with deans and faculty. Informational roles, by themselves, were least likely to be reported among all participants (Tables 7-8).

Additionally, chairs were asked to comment on how Mintzberg’s managerial theory could be used to describe chair roles. Common themes included, “an objective way of analyzing PA chair roles,” “could serve as an evaluation tool for administrators attempting to evaluate PA chair roles,” “a template for developing job descriptions,” “helps understand how managers operate,” and “could assist those developing training activities for new chairs.”

Comparison of Quantitative and Qualitative Data

A comparison of role scores combined into categories of interpersonal, informational, and decisional role categories showed chairs spending the majority of their time in interpersonal roles. Similarly, chair-reported interactions from the qualitative data demonstrate the same pattern. Hence, the quantitative and qualitative data together appeared to support one another in regard to questions 1-3 (Figure 4).

Figure 4. Percent Time Spent Using Mintzberg Roles as Perceived by Department Chairs and Faculty by Role Category

Overall, the quantitative data provided evidence of use and congruence in use of Mintzberg's roles among chairs and faculty when evaluating the roles individually, especially interpersonal roles. Likewise, the qualitative data illustrated more use of interpersonal roles as opposed to informational and decisional roles. It appeared chairs were consistent in the way they reported role use, both quantitatively and qualitatively.
Table 7

Analysis of Telephone Interviews (n=6)

<table>
<thead>
<tr>
<th>Roles</th>
<th>Interpersonal</th>
<th>Informational</th>
<th>Decisional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions with Chairs</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Interactions with Deans</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Interactions with Faculty</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Interactions with Students</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Interactions with Community Partners</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

*Number of interactions from raw data described in Table 8.*
### Table 8

**Summary of Telephone Interviews**

<table>
<thead>
<tr>
<th>Question</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Subject 5</th>
<th>Subject 6</th>
<th>Common Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In your opinion, how can Mintzberg's managerial role theory be used to describe PA department chair roles?</td>
<td>-Provides better picture of roles. -Objective way of evaluating roles.</td>
<td>-Use main categories as a template for job descriptions for chairs/PDs. -Use constructs for the development of an evaluation tool</td>
<td>-Identify scope of abilities for new chairs/PD -Help chairs/PDs understand how managers operate in general</td>
<td>-Captures chair role -Serve as a framework for an evaluation tool -Describes 85-95% of roles</td>
<td>-Use as a source for understanding roles -Training for chairs -Grooming</td>
<td>-Forces one to evaluate chair roles -Orientation and evaluation tool -Describes ideal manager</td>
<td>-Provides a framework for understanding PA chair roles -Constructs could be used for an administrative evaluation tool</td>
</tr>
<tr>
<td>2. Describe the managerial roles you use when you have interactions with other chairs in your institution?</td>
<td>-Uses a mix, usually more informational.</td>
<td>-Interpersonal/informational.</td>
<td>-No other similar peers on campus</td>
<td>-Interpersonal</td>
<td>-Interpersonal</td>
<td>-Interpersonal</td>
<td>-Most common use is interpersonal</td>
</tr>
<tr>
<td>Example:</td>
<td>-Monthly meetings with chairs/PDs</td>
<td>Example:</td>
<td>-Monthly meetings</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Monthly meetings</td>
<td></td>
<td>-Executive committee meetings</td>
<td>-Adhoc meetings with administration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 8

Continued

*Summary of Telephone Interviews*

<table>
<thead>
<tr>
<th>Question</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Subject 5</th>
<th>Subject 6</th>
<th>Common Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Describe the managerial roles you use when you have interactions with your Dean?</td>
<td>-Uses all equally</td>
<td>-Mostly informational, some interpersonal. Uses negotiation from decisional</td>
<td>-Uses all, mostly decisional</td>
<td>-Mostly decisional, some interpersonal</td>
<td>-Uses all three</td>
<td>-Informational and decisional</td>
<td>-All three role categories used</td>
</tr>
<tr>
<td>Example: Monthly meeting with the Dean</td>
<td>Example: Periodic meetings with VP, no Dean</td>
<td>Example: Regular meetings with dean</td>
<td>Example: Monthly meetings with VP, no Dean</td>
<td>Example: Periodic meetings with the VP</td>
<td>Example: Monthly meetings with division head</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Describe the managerial roles you use when you have interactions with your faculty?</td>
<td>-Uses all but mostly decisional.</td>
<td>-Uses all and interacts with faculty in a democratic fashion</td>
<td>-Uses interpersonal mostly, then the other 2 equally.</td>
<td>-Mostly interpersonal, some decisional</td>
<td>-All three</td>
<td>-Mostly interpersonal, some informational</td>
<td>-All three role categories used</td>
</tr>
<tr>
<td>Example: Faculty meetings</td>
<td>Example: Personal and faculty meetings</td>
<td>Example: Personal and faculty meetings</td>
<td>Example: Faculty meetings and retreats</td>
<td>Example: Faculty meetings</td>
<td>Example: Faculty meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
Table 8

Continued

**Summary of Telephone Interviews**

<table>
<thead>
<tr>
<th>Question</th>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Subject 5</th>
<th>Subject 6</th>
<th>Common Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Describe the managerial roles you use when you have interactions with your students?</td>
<td>-Mostly interpersonal/decisional</td>
<td>-Interpersonal and informational</td>
<td>-Interpersonal first then informational and decisional</td>
<td>-Interpersonal</td>
<td>-Interpersonal</td>
<td>-Interpersonal and decisional</td>
<td>-Most common use is interpersonal</td>
</tr>
<tr>
<td>Example:</td>
<td>-Student information meetings</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:</td>
<td>-Director's hour</td>
<td>-Interactions/meetings with preceptors</td>
<td>-Director's hour</td>
<td>-Classroom teaching</td>
<td>-Classroom teaching and advising</td>
<td></td>
</tr>
<tr>
<td>6. Describe the managerial roles you use when you have interactions with community partners?</td>
<td>-Informational/Interpersonal</td>
<td>-Informational</td>
<td>-Mostly interpersonal, some informational</td>
<td>-Mix between informational and interpersonal</td>
<td>-Interpersonal and Informational</td>
<td>-Interpersonal and informational</td>
<td>-Mix between interpersonal and informational</td>
</tr>
<tr>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Meetings with clinical preceptors, agencies</td>
<td>Example:</td>
<td>-Interactions with preceptors, agencies</td>
<td>-Meetings with preceptors, clinical sites</td>
<td>-Community board meetings</td>
<td>-Alumni communication</td>
<td></td>
</tr>
<tr>
<td>Completed Survey</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
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Research Questions 4-6

- Question 4: Which managerial roles (as defined by Mintzberg) do PA department chairs perceive as important in their work as a department chair?
- Question 5: Which managerial roles (as defined by Mintzberg) do PA department faculties perceive as important in the work of a department chair?
- Question 6: What is the difference of importance PA department chairs place on Mintzberg's managerial roles versus PA department faculty?

Overview

While research questions 1-3 dealt with reported use of Mintzberg’s managerial roles, research questions 4-6 addressed perceived importance of Mintzberg’s roles. To answer research questions 4-6, chairs were directed in section 4 of the chair survey to indicate the importance of Mintzberg’s roles in relation to their job as an administrator (not their role in teaching or scholarship/research) on a Likert scale, with one being not important and five being very important. Likewise, faculty in section 1 of the faculty survey were directed to think about how PA department chairs might engage in Mintzberg’s roles as an administrator (not their role in teaching or scholarship/research) and report how important they perceived each role in relation to a PA chair position, with one being not important and five being very important.

Research questions 4 and 5 required frequency statistics to determine importance ratings of Mintzberg’s managerial roles in relation to PA department chair work as perceived by PA department chairs and faculty. Research question 6 used a
chi-square test to determine if there were relationships between importance ratings of PA department chairs and faculty.

Quantitative Data

Data indicated both chairs and faculty agree on the importance of each role and report leader as "most important." The "least important" role for both groups was figurehead. Informational roles (monitor, disseminator, and spokesperson) appeared to be viewed as moderately important by both chairs and faculty. The decisional roles (entrepreneur, disturbance handler, resource allocator, and negotiator) appeared to be viewed as less applicable to the work of a chair as compared to interpersonal and informational roles. However, no significant relationships were found between the importance ratings of the 10 roles when chairs and faculty were compared.

These data provided evidence of agreement among chairs and faculty regarding the perceived importance of Mintzberg's roles without any significant relationships (Figure 5, Table 9).

Figure 5. Importance of Mintzberg's Model as Perceived by Department Chairs and Faculty (% faculty selecting important or very important from chi-square contingency table 9)

F=Figurehead; Le=Leader; Li=Liaison; M=Monitor; D=Disseminator; S=Spokesperson; DH=Disturbance handler; E=Entrepreneur; RA=Resource allocator; N=Negotiator.
Table 9

*Importance Ratings by Percent: Chair (n=77) and Faculty (n=94)*

<table>
<thead>
<tr>
<th>Role</th>
<th>N/A</th>
<th>Not Important</th>
<th>Very Important</th>
<th>X²</th>
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<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Figurehead</td>
<td>2.7</td>
<td>9.6</td>
<td>16.4</td>
<td>20.5</td>
</tr>
<tr>
<td>Chair</td>
<td>1.1</td>
<td>6.4</td>
<td>11.7</td>
<td>25.5</td>
</tr>
<tr>
<td>Leader</td>
<td>2.7</td>
<td>5.3</td>
<td>2.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Faculty</td>
<td>6.4</td>
<td>4.3</td>
<td>0.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Liaison</td>
<td>0.0</td>
<td>5.3</td>
<td>8.0</td>
<td>14.7</td>
</tr>
<tr>
<td>Chair</td>
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<td>4.3</td>
<td>8.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Faculty</td>
<td>0.0</td>
<td>4.3</td>
<td>8.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Monitor</td>
<td>0.0</td>
<td>4.1</td>
<td>6.8</td>
<td>16.2</td>
</tr>
<tr>
<td>Chair</td>
<td>3.2</td>
<td>1.1</td>
<td>6.4</td>
<td>24.5</td>
</tr>
<tr>
<td>Faculty</td>
<td>3.2</td>
<td>1.1</td>
<td>6.4</td>
<td>24.5</td>
</tr>
<tr>
<td>Disseminator</td>
<td>1.4</td>
<td>4.1</td>
<td>5.5</td>
<td>16.4</td>
</tr>
<tr>
<td>Chair</td>
<td>3.2</td>
<td>1.1</td>
<td>6.4</td>
<td>16.0</td>
</tr>
<tr>
<td>Faculty</td>
<td>3.2</td>
<td>1.1</td>
<td>6.4</td>
<td>16.0</td>
</tr>
<tr>
<td>Spokesperson</td>
<td>2.7</td>
<td>4.1</td>
<td>1.4</td>
<td>17.8</td>
</tr>
<tr>
<td>Chair</td>
<td>3.2</td>
<td>2.1</td>
<td>6.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Faculty</td>
<td>3.2</td>
<td>2.1</td>
<td>6.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Disturbance handler</td>
<td>8.1</td>
<td>5.4</td>
<td>1.4</td>
<td>6.8</td>
</tr>
<tr>
<td>Chair</td>
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<td>9.6</td>
</tr>
<tr>
<td>Faculty</td>
<td>9.6</td>
<td>3.2</td>
<td>0.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Entrepreneur</td>
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<td>5.5</td>
<td>4.1</td>
<td>9.6</td>
</tr>
<tr>
<td>Chair</td>
<td>5.4</td>
<td>1.1</td>
<td>2.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Faculty</td>
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<td>1.1</td>
<td>2.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Resource Allocator</td>
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<td>4.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Chair</td>
<td>7.5</td>
<td>2.2</td>
<td>2.2</td>
<td>15.1</td>
</tr>
<tr>
<td>Faculty</td>
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<td>2.2</td>
<td>2.2</td>
<td>15.1</td>
</tr>
<tr>
<td>Negotiator</td>
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<td>8.5</td>
<td>4.2</td>
<td>16.9</td>
</tr>
<tr>
<td>Chair</td>
<td>9.6</td>
<td>3.2</td>
<td>4.3</td>
<td>9.6</td>
</tr>
<tr>
<td>Faculty</td>
<td>9.6</td>
<td>3.2</td>
<td>4.3</td>
<td>9.6</td>
</tr>
</tbody>
</table>
Research Question 7

- What is the difference of importance experienced PA department chairs place on managerial roles (as defined by Mintzberg’s model) versus novice PA department chairs?

Overview

Data collected for research questions 4-6 were used to answer question 7. Research question 7 utilized another chi-square test to determine if there were relationships between importance ratings of experienced (more than six years) and novice (six or less years) chairs.

Quantitative Data

The leader role was again identified as “most important” when novice and experienced chairs were compared. The “least important” role for both groups was also figurehead (Figure 6).

![Graph showing importance ratings of department chairs](image)

Figure 6. Importance of Mintzberg's Model as Perceived by Department Chairs: Experienced vs. Novice Department Chairs (% faculty selecting important or very important from chi-square contingency table 10)

F=Figurehead; Le=Leader; Li=Liaison; M=Monitor; D=Disseminator; S=Spokesperson; DH=Disturbance handler; E=Entrepreneur; RA=Resource allocator; N=Negotiator

As seen in the data analyses for research question 7 (Table 10), the decisional roles (entrepreneur, disturbance handler, resource allocator, and negotiator) appeared
to be viewed as less applicable in the work of a chair as compared to interpersonal and informational roles. However, the only significant role association between novice and experienced chairs was the entrepreneur construct (p<.05), with experienced chairs placing more importance on the entrepreneur role.

Table 10

*Chairs Experience (%) by Years: Novice (6 or less) and Experienced (7 or more)*

<table>
<thead>
<tr>
<th></th>
<th>N/A 0</th>
<th>Not Important 1</th>
<th>Not Important 2</th>
<th>Not Important 3</th>
<th>Very Important 4</th>
<th>Very Important 5</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figurehead Novice</td>
<td>2.6</td>
<td>10.5</td>
<td>13.2</td>
<td>28.9</td>
<td>26.3</td>
<td>18.4</td>
<td></td>
</tr>
<tr>
<td>Leader Novice</td>
<td>5.1</td>
<td>2.6</td>
<td>5.1</td>
<td>0.0</td>
<td>20.5</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td>Leader Experienced</td>
<td>0.0</td>
<td>8.6</td>
<td>0.0</td>
<td>2.9</td>
<td>11.4</td>
<td>77.1</td>
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<tr>
<td>Liaison Novice</td>
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<td>2.6</td>
<td>10.3</td>
<td>17.9</td>
<td>43.6</td>
<td>25.6</td>
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<td>Liaison Experienced</td>
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<td>8.6</td>
<td>11.4</td>
<td>45.7</td>
<td>28.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Novice</td>
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<td>5.3</td>
<td>7.9</td>
<td>15.8</td>
<td>42.1</td>
<td>28.9</td>
<td></td>
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<tr>
<td>Monitor Experienced</td>
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<td>2.9</td>
<td>5.7</td>
<td>17.1</td>
<td>42.9</td>
<td>31.4</td>
<td></td>
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<tr>
<td>Disseminator Novice</td>
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<td>7.7</td>
<td>12.8</td>
<td>41.0</td>
<td>35.9</td>
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</tr>
<tr>
<td>Disseminator Experienced</td>
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<td>6.1</td>
<td>3.0</td>
<td>21.2</td>
<td>42.4</td>
<td>24.2</td>
<td></td>
</tr>
<tr>
<td>Spokesperson Novice</td>
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<td>2.6</td>
<td>2.6</td>
<td>17.9</td>
<td>38.5</td>
<td>35.9</td>
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</tr>
<tr>
<td>Spokesperson Experienced</td>
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<td>6.1</td>
<td>0.0</td>
<td>18.2</td>
<td>27.3</td>
<td>45.5</td>
<td></td>
</tr>
<tr>
<td>Disturbance handler Novice</td>
<td>7.7</td>
<td>5.1</td>
<td>2.6</td>
<td>2.6</td>
<td>33.3</td>
<td>48.7</td>
<td></td>
</tr>
<tr>
<td>Disturbance handler Experienced</td>
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<td>5.9</td>
<td>0.0</td>
<td>11.8</td>
<td>29.4</td>
<td>44.1</td>
<td></td>
</tr>
<tr>
<td>Entrepreneur Novice</td>
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<td>7.7</td>
<td>10.3</td>
<td>41.0</td>
<td>25.6</td>
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</tr>
<tr>
<td>Entrepreneur Experienced</td>
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<td>6.1</td>
<td>0.0</td>
<td>9.1</td>
<td>12.1</td>
<td>63.6</td>
<td></td>
</tr>
<tr>
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<td>5.1</td>
<td>20.5</td>
<td>48.7</td>
<td></td>
</tr>
<tr>
<td>Resource Allocator Experienced</td>
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<td>2.9</td>
<td>5.9</td>
<td>8.8</td>
<td>20.6</td>
<td>50.0</td>
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</tr>
<tr>
<td>Negotiator Novice</td>
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<td>7.9</td>
<td>5.3</td>
<td>21.1</td>
<td>7.9</td>
<td>36.8</td>
<td></td>
</tr>
<tr>
<td>Negotiator Experienced</td>
<td>18.8</td>
<td>9.4</td>
<td>3.1</td>
<td>12.5</td>
<td>25.0</td>
<td>31.3</td>
<td></td>
</tr>
</tbody>
</table>

*df=5, p<.05*
These data must be interpreted with caution since two-thirds of the cells had an expected count of less than 5. Overall, these data answered question 7 and provided evidence of agreement among experienced and novice chairs regarding the perceived importance of Mintzberg’s roles with the exception of one construct, entrepreneur.

Research Question 8

- What is the difference in use of managerial roles as reported by experienced and novice PA department chairs?

Overview

Data used to answer research questions 1-3 were also used to answer research question 8. Research question 8 required a two-sample t-test to see if there was a significant difference in each of the managerial role uses between experienced (more than six years) and novice (six or less years) PA department chairs.

Quantitative Data

Table 11 summarizes percentage of time utilizing Mintzberg’s managerial roles as reported by novice and experienced chairs. Overall, the mean scores for each role identified by both groups and compared to each other were very similar. Roles with means greater than 10 percent, from both groups, were considered “most used” for a chair. The leader and resource allocator roles were identified using this cut-off point for both groups (except for the addition of the entrepreneur role for experienced chairs). The “least used” role identified by experienced chairs was negotiator. For novice chairs, the “least used” role was also negotiator. The roles figurehead, liaison,
monitor, disseminator, spokesperson, disturbance handler, and entrepreneur appeared to be used equally by both groups.

Table 11

*Managerial Role Use by Chairs: Means (+/- SD)*

<table>
<thead>
<tr>
<th>Chairs</th>
<th>Novice (%) n=38</th>
<th>Experienced (%) n=39</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interpersonal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figurehead</td>
<td>9.31 (8.68)</td>
<td>8.90 (9.74)</td>
<td>.179</td>
</tr>
<tr>
<td>Leader</td>
<td>23.26 (13.69)</td>
<td>18.50 (9.94)</td>
<td>3.571</td>
</tr>
<tr>
<td>Liaison</td>
<td>9.41 (6.62)</td>
<td>8.31 (5.12)</td>
<td>.767</td>
</tr>
<tr>
<td><strong>Informational</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td>7.53 (3.47)</td>
<td>7.61 (3.70)</td>
<td>-.100</td>
</tr>
<tr>
<td>Disseminator</td>
<td>7.49 (3.27)</td>
<td>23.87 (3.94)</td>
<td>23.88</td>
</tr>
<tr>
<td>Spokesperson</td>
<td>8.85 (4.54)</td>
<td>8.53 (5.05)</td>
<td>.276</td>
</tr>
<tr>
<td><strong>Decisional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dist. handler</td>
<td>8.87 (5.42)</td>
<td>8.97 (5.07)</td>
<td>-.076</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>7.71 (4.76)</td>
<td>31.73 (7.88)</td>
<td>37.36</td>
</tr>
<tr>
<td>Res. Allocator</td>
<td>10.08 (6.74)</td>
<td>11.00 (6.09)</td>
<td>-.593</td>
</tr>
<tr>
<td>Negotiator</td>
<td>5.07 (3.50)</td>
<td>6.00 (3.91)</td>
<td>-1.019</td>
</tr>
</tbody>
</table>

*p < .05

The t-tests indicated novice and experienced chairs were congruent in their selections of managerial role use, except for the construct “entrepreneur,” which was statistically different (p < .05). Novice chairs reported a decreased use of this role compared to experienced chairs with a difference of more than 50 percent (Figure 7).
These data provided evidence of use and congruence in use of Mintzberg’s roles among novice and experienced chairs (except for the construct entrepreneur). It is unknown why experienced chairs believe PA chairs should spend more time in the entrepreneur role, but is likely related to experience and the desire of experienced chairs to be more innovative in the way their programs are conducted.

Constructs Identified by Respondents

Respondents to both surveys had an opportunity to provide additional roles they felt were important in the work of a department chair but not included in the constructs of Mintzberg’s theory. The few that were identified were coded for the three major managerial role categories (i.e., interpersonal, informational, and decisional) and further compared to the Minzberg theory constructs to see if there were similarities (Table 12).
### Table 12

**Summary of Other Roles Identified by Chairs and Faculty**

<table>
<thead>
<tr>
<th>Roles</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairs</td>
<td></td>
</tr>
<tr>
<td>Leaders of students</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>Managing day-to-day operations</td>
<td>Informational</td>
</tr>
<tr>
<td>Meetings with students</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>Fiscal management</td>
<td>Decisional</td>
</tr>
<tr>
<td>Clinical coordinator</td>
<td>Informational</td>
</tr>
<tr>
<td>Facilitator</td>
<td>Decisional</td>
</tr>
<tr>
<td>Program administration</td>
<td>Informational</td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
</tr>
<tr>
<td>Maintains/supports innovations</td>
<td>Decisional</td>
</tr>
<tr>
<td>Student Recruitment</td>
<td>Decisional</td>
</tr>
<tr>
<td>Transmit information within department</td>
<td>Informational</td>
</tr>
<tr>
<td>Conductor</td>
<td>Informational</td>
</tr>
</tbody>
</table>

Seven discrete roles were identified by seven chairs (9%). Four discrete roles were identified by four faculty (4%). Hence, there were no duplication among chairs and faculty when they reported this information. These extra roles were either different descriptions of Mintzberg’s roles (e.g., leader of students [leader], managing day-to-day operations [monitor], fiscal management [resource allocator]) or other areas of chair responsibility in teaching (e.g., clinical coordinator and student recruitment), which was not requested on the survey. Overall, the paucity of information reported indirectly indicates chairs and faculty are satisfied with the way Mintzberg’s model may describe the administrative portion of the job of a PA chair. Furthermore, all of the roles identified matched one of the main role categories as identified by Mintzberg, therefore, no new constructs were identified. These data
provided evidence both chairs and faculty were in agreement with how Mintzberg’s model can describe PA chair roles.

Summary

The demographic data provided evidence that both groups were homogenous in terms of their age, years of experience, ethnicity, and degree level. Furthermore, degree level, location of instructional unit, number of faculty supervised, and class size were comparable to national data provided by Simon, Link, and Miko (2003).

The ratio data provided evidence that clearly identified use of each role and agreement in most of these roles among chairs (including novice and experienced chairs), which were further verified by a faculty comparison group. Similarly, chair-reported role interactions with their co-workers, students, faculty, and community partners gathered from the telephone interviews demonstrated the same pattern. Overall, both data sets illustrated more use of interpersonal roles as opposed to informational and decisional roles. Hence, the quantitative and qualitative data together appear to support one another in this regard.

Interestingly, the decisional role category was the only one where the role constructs were statistically different between the chair and faculty groups (although only for two of the four roles). The negotiator role was reported less often by faculty as a role in which chairs should engage in. The entrepreneur role was reported more often by experienced chairs when compared to novice chairs in terms of use and importance. Although reasons for these incongruent perceptions of managerial role use were not collected on either survey, one can make some basic assumptions as to why this occurred.
In regard to the negotiator role, one that Mintzberg (1973) describes as vital to the work of a manager (Mintzberg, 1973, p. 91), it is often used behind the scenes to assure that deals materialize. Because of the nature of the negotiator role and its description, this role may be transparent to faculty and one that may never surface as an obvious role utilized by a chair. In regard to the entrepreneur role, Mintzberg (1973) views this role as one that focuses on all managerial work associated with systematic change in ongoing (as well as new) organizations in which managers spend much of their time scanning their organizations, looking for opportunities and for situations that may be considered problems (Mintzberg, 1973, p. 78). That is, this role requires assimilation of important events, rather than analyzing gradual trends displayed in routine reports. Therefore, it was a role that was more likely to be used by more seasoned and experienced chairs.

The ordinal data also provided some insight into the work of a PA department chair in terms of their perception of role importance. Regarding importance of Mintzberg's roles, chairs indicated a high level of importance of interpersonal roles, which is also further verified by the faculty comparison group. Informational and decisional roles appeared to be less applicable in the work of a PA chair. However, no significant relationships were found between the overall importance ratings of the 10 roles among chairs and faculty, except that of the entrepreneur role between experienced and novice chairs. These data must be interpreted with caution since two-thirds of the cells had an expected count of less than 5, but they lead one to believe the relationships may be valid as this is the same role identified as statistically significant when comparing experienced and novice chairs in regard to role use.
Closer examination of all of the data revealed “leader” as the overriding construct that was viewed as the most important in terms of perception and use for all groups, both quantitatively and qualitatively. This was an important finding as leadership is an important trait for strong and committed department chairs in general (West, 1995). This finding was important for other reasons as well. First, according to Mintzberg (1973), the leader role is clearly among the most significant of all roles as it permeates all managerial activities (Mintzber, 1973, p. 61). Second, it is in the leader role that managerial power must clearly manifest itself (Mintzberg, 1973, p. 62). Thus, through leader-role use one can assume the PA chair will be able to weld diverse elements into a cooperative enterprise (Mintzberg, 1973, p. 62). Furthermore, Mintzberg (1973) describes a team manager, which most closely resembles an academic chair, concerned with the leader role and preoccupied with the creation of a team that will operate as a cohesive whole and will function effectively. The “team manager” is found where the organizational tasks require difficult coordination among highly skilled experts.

When evaluating these data as a whole, PA chairs were more concerned about functioning in the interpersonal realms of Mintzberg’s managerial roles as opposed to the informational and decisional realms. That is, they were more concerned with providing information as opposed to processing and using information. This finding may be unique to PA chairs, as they function in an environment made up of subordinates who are responsible for specific aspects of a PA program (e.g., academic and clinical coordinators, admission directors) (Simon, Link, & Miko, 2003). Therefore, the PA chair may be providing information or direction to a subordinate
who would then process and use this information. This finding was different from research summarized by Howe (1988) which describes managers in the education sector as having an internal focus reflected by the time they spend with subordinates in performing the informational roles, i.e., the gathering and disseminating of required information so that the work of the operating core can get done.

In summary, these data described PA chairs in terms of their administrative role as defined by Mintzberg, which is more focused on providing information, as a leader, than processing and using information (Figure 8).

- Role use: chairs vs. faculty
- Role use: experienced vs. novice chairs
- Role importance: chairs vs. faculty
- Role importance: exp. chairs vs. novice chairs

Figure 8. Role Usage vs. Importance: Chairs, Faculty, and Chair by Experience

F=Figurehead; Le=Leader; Li=Liaison; M=Monitor; D=Disseminator; S=Spokesperson; DH=Disturbance handler; E=Entrepreneur; RA=Resource allocator; N=Negotiator

Additionally, these findings (in terms of how chairs and faculty view the chair position) matched the description of the chair role and role constructs as defined by Mintzberg. This information may be used to educate existing chairs about their role,
produce development opportunities to produce better department chairs, and orient new chairs into the role of a PA education administrator.
Chapter Five

Discussion

Overview

This study described a research project involving PA department chairs in the United States. The research focused on managerial roles PA department chairs used and perceived as important as compared to Mintzberg's (1973) model. Knowing the managerial nature of individuals in PA chair positions, including the way they conduct themselves as managers, may be a significant resource when assisting others in the understanding of this position. Although Mintzberg's model has been used primarily to describe corporate managers, in this study it served as a framework for understanding the work of the PA academic chair. This research holds interest on two levels, first the topic of research, and secondly the theoretical approach used.

Summary of the Literature

Unfortunately there is very little theoretical information available on managerial roles among academic administrators. However, a significant amount of literature does exist regarding the department chair in general. Overall, the literature that is available is descriptive in nature. The literature summarizes the historical development of the chair position, provides a clear picture of who is involved in the chair position and the type of organizations chairs serve, and focuses on various responsibilities, skills, and challenges facing chairs. The literature, in many ways, describes the chair position as a lower level corporate manager, which is more service-related. However, there are gaps in knowledge about specific types of
department chairs (e.g., PA) and their roles. This research, it was hoped, in some way addressed this imbalance.

This gap in the literature has practical consequences because of the number of new PA department chairs entering into a field where little is known about the job. The impetus for this is coming from external factors such as the increasing number of new programs (Simon, Link, & Miko, 2003). This should be of central concern for PA departments and universities that house such programs; thus, supporting a need for research in this area.

The literature was not informative about standard theoretical approaches used for this type of research project, specifically the evaluation of academic department chair roles. Therefore, a search for similar conceptual models used in describing managerial roles in all settings was undertaken. The conceptual framework selected for use was taken from Mintzberg managerial model (1973). This approach takes an observational, descriptive stance on the work of managers. It answers the question, what do managers do? Rather than what should managers do? Mintzberg’s model is divided into three managerial role categories: interpersonal, informational, and decisional (Figure 9).
The Managerial Roles

Interpersonal
- Figurative
- Liaison
- Leader

Informational
- Monitor
- Disseminator
- Spokesperson

Decisional
- Entrepreneur
- Defender
- Negotiator
- Strategist

Feedback

Provide Information
Process Information
Use Information

Figure 9. Mintzberg's Model of Managerial Roles*


The interpersonal roles ensure that information is provided. The informational roles link all managerial work together. The decisional roles make significant use of the information.

Mintzberg (1973) further points out that the many demands faced by managers forces them to assume multiple roles, which are essentially an organized set of behaviors. To date, this managerial role model has been limited to describing mostly business and corporate managers. Selection of Mintzberg’s model served two purposes: a framework for describing PA chairs and an interesting application of a theory primarily used in the business setting.

Methods

The methodology had two distinct phases, the first phase quantitative and the second qualitative. The two approaches were seen as complementary in that, by their use, overlapping and different facets of the issue emerged. Alternatively, the
qualitative method was used to help inform the quantitative method and served to bring out commonalities among chairs.

Quantitative data gathered consisted of ratio and ordinal data as reported by PA department chairs and faculty. Based on the constructs of Mintzberg’s model, the data analysis involved comparing mean percentages of managerial-role use as reported by PA chairs and faculty. Additionally, importance ratings of Mintzberg’s model provided by PA department chairs and faculty were evaluated for similarity between groups. Telephone interviews were also conducted with six department chairs (randomly selected from each consortium as defined by the Association of Physician Assistant Programs) to further evaluate the nature of the managerial role interactions they experience with other department chairs, deans, faculty, students, and community partners (Simon, Link, & Miko, 2000).

The on-line surveys were distributed electronically through e-mail to 127 PA department chairs and 214 PA faculty (total target population, n=341). Four weeks after the study was initiated, telephone interviews were conducted with six department chairs over a two-week period. Telephone interviews were coded by hand for the three major managerial role categories (i.e., interpersonal, informational, and decisional) and recorded in a tabular fashion.

The returned on-line survey responses were captured in a comma-separated-value (CSV) file on the researcher’s university server. Once the data collection phase was complete, the CSV data were imported into an Excel spreadsheet, edited, and then imported into SPSS version 12.0 for analysis. The alpha level was set at 0.05.
A major strength of the study was the response rate. Seventy-seven department chairs completed the on-line survey, which corresponded to a 61 percent response rate. Likewise, 94 faculty returned a completed survey, corresponding to a 44 percent response rate. Therefore, 171 subjects were included for analysis, which represented 50 percent of the target population.

Results

Faculty and Chair Characteristics

Overall, both groups were homogenous in terms of their age (chairs \( \bar{x} = 47.91 \), \( \pm SD = 8.42 \); faculty \( \bar{x} = 45.53 \), \( \pm SD = 9.23 \)), years of experience (chairs \( \bar{x} = 7.87 \), \( \pm SD = 7.07 \); faculty \( \bar{x} = 5.82 \), \( \pm SD = 4.27 \)), ethnicity, and degree level. On average the PA chair had seven years (\( \pm SD = 7.75 \)) of prior PA faculty experience and 12 years (\( \pm SD = 8.25 \)) of full-time practice as a PA. Very few reported prior administrative experience in PA education or other higher education fields. More than 30 percent indicated that within the next five years they will either retire or move to a higher position in the same or different institution.

Chairs reported their instructional unit was located within a college or school (82 percent), fully accredited (90 percent), in operation for about 15 years, with 5.61 full-time faculty and 6.60 part-time faculty. Mean class size was approximately 38 full-time and 5 part-time students.

As far as the campus characteristics were concerned, chairs reported the three largest health science programs offered at their institution as PA, nursing, and physician education. Campus enrollments averaged 7,259 full-time students and campus employment figures averaged 661 full-time faculty and 38 chairpersons. The
campus educational focus was mostly liberal arts and sciences with professional education. Respondent's programs were located in all of the typical accrediting regions; however, most were located in Middle States (29.9 %), Southern Association (23.4 %), and North Central (31.2 %). The majority of respondents were chairs in public institutions (54.5 %).

Role Use

Both chairs and faculty indicated use of all roles, ranging from a mean of 5.48 to 21.11 and 8.49 to 18.10 percent respectively. Overall, these mean percentages, as compared to each other, were very similar. Roles with means greater than 10 percent, from both groups, were considered “most used” for a chair. Only two roles were identified using this cut-off point for chairs; leader and resource allocator. The “least used” role identified by chairs was negotiator. For faculty, most used roles were figurehead, leader, and resource allocator. The “least used” role was liaison.

Combining individual role scores into interpersonal, informational, and decisional categories showed chairs spending the majority of their time in interpersonal roles, while faculty perceived chairs spending most of their time in decisional roles.

However, the t-tests indicated chairs and faculty were congruent in their selections of managerial role use, except for the construct “negotiator,” which was statistically different (p < .001). In this case, faculty perceived that department chairs should spend more time in this role compared to chairs, by more than 60 percent.

While the on-line survey data attempted to collect information on chair role use in a general sense, data from the telephone interviews centered on chair interactions with peers, supervisors, faculty, students, and community partners.
For their peers, the predominant interaction involved using interpersonal roles (figurehead, leader, and liaison). Examples of this typically involved “monthly chair meetings,” “collaboration with other chairs in the form of a council,” or “executive committee meetings.” For interactions involving their supervisors (typically a dean or vice president) all three role categories were reported, with decisional roles being reported more often. These included interpersonal (as defined above), informational (monitor, disseminator, spokesperson), and decisional (entrepreneur, disturbance handler, resource allocator, and negotiator). Examples included “regular, periodic, or monthly one-on-one meetings.” Managerial interactions with faculty were more likely to be interpersonal in nature with the most common venue for these interactions being regular faculty meetings. Interactions with students were typically interpersonal and with some decisional components, particularly the disturbance handler role. These interactions typically occurred in the classroom or scheduled “chair hours” where students had guaranteed time to interact with the chair. Interactions with community partners involved the use of interpersonal roles, mostly in meetings with clinical preceptors and community agencies (e.g., community health centers).

Regarding role use among experienced and novice chairs, the mean percentages for each role identified by both groups and compared to each other were very similar. Roles with means greater than 10 percent, from both groups, were considered “most used” for a chair. The leader and resource allocator roles were identified using this cut-off point for both groups (except for the addition of the entrepreneur role for experienced chairs). The “least used” role identified by
experienced chairs was negotiator. For novice chairs, the “least used” role was also negotiator. The roles figurehead, liaison, monitor, disseminator, spokesperson, disturbance handler, and entrepreneur appeared to be equally distributed between both groups.

The t-tests indicated novice and experienced chairs were congruent in their selections of managerial role use, except for the construct “entrepreneur,” which was statistically different (p < .05). Novice chairs reported a decreased use of this role compared to experienced chairs by more than 50 percent.

Role Importance

Data indicated both chairs and faculty agree on the importance of each role and report leader as “most important.” The “least important” role for both groups was figurehead. Informational roles (monitor, disseminator, and spokesperson) appear to be viewed as moderately important by both chairs and faculty. The decisional roles (entrepreneur, disturbance handler, resource allocator, and negotiator) appeared to be viewed as less applicable to the work of a chair as compared to interpersonal and informational roles. However, no significant relationships were found between the importance ratings of the 10 roles when chairs and faculty were compared.

The leader role was again identified as “most important” when novice and experienced chairs were compared. The “least important” role for both groups was also figurehead. The decisional roles (entrepreneur, disturbance handler, resource allocator, and negotiator) appeared to be viewed as less applicable in the work of a chair as compared to interpersonal and informational roles. However, the only
significant role association between novice and experienced chairs was that of the entrepreneur role (p<.05), with experienced chairs placing more importance on the entrepreneur role.

Overall, these data provided evidence of agreement among experienced and novice chairs regarding the perceived importance of Mintzberg's roles with the exception of one construct, entrepreneur.

*Overall Findings Compared to the Literature*

A key finding in the data was the identification of the leader role as one that is used most by PA chairs and one that is viewed as most important as perceived by PA chairs and faculty. This finding was important according to Mintzberg, as it is through leader role use the PA chair should be able to weld diverse elements into a cooperative enterprise (Mintzberg, 1973, p. 62). This is one of the most important underlying constructs of Mintzberg's model and supported by Chliwniak (1997) who reports that several scholars contend leaders provide an institution with new values and ethics grounded in cooperation, community, and relationships within the community. The qualitative data were also consistent with Chliwniak's report.

The identification of the leader role as one that was used most by PA chairs and one that was viewed as most important as perceived by PA chairs and faculty was not unique to this study (although there are no comparable studies that evaluate academic department chair roles using Mintzberg's model). However, the leader role has been identified in a number of other studies using Mintzberg's managerial model. For example, Pavett and Lau (1983) (who evaluated managers in the public and private sectors) found that, regardless of work setting, the leader role was most often
used by managers (Schafer, 1992). They also concluded that the leader role did not appear to be career specific and could be applied to any manager in any industry (Schafer, 1992). Wentz’s (1995) research explored and described the commitment of department chairs to the manager role. The results of this qualitative study suggested that chairs are likely to adopt the role of the leader over other roles. Scott (1980) described the role and responsibilities of department heads and the effects of changing conditions in higher education in reference to nursing education. The author described a nursing department head as one expected to serve as leader. Anderson (2002), in his evaluation of Mintzberg’s managerial roles of community college chief academic officers, found that all 10 managerial roles were reported as being used in the chief academic officer position. In many cases the leader role was most emphasized. Overall, there appears to be a pattern in the literature, ranging from business to academic settings, that describes the leader role as most important.

The roles identified as “moderately important” or “least important” by chairs and faculty include the informational roles (monitor, disseminator, and spokesperson) and decisional roles (entrepreneur, disturbance handler, resources allocator, and negotiator). No similar studies (i.e., studies using the similar variables among academic chairs) could be found to validate these findings. However, Pavett and Lau’s (1983) work provided data that may be used for comparison purposes in this area. They evaluated whether hierarchical level (i.e., lower level managers versus executives in private sector service and manufacturing firms) made a difference in the rated importance of Mintzberg’s managerial roles. Since academic department chairs have been likened to lower level corporate managers elsewhere in this study, Pavett
and Lau's (1983) work has some relevance here. Pavett and Lau's (1983) results indicate that hierarchical level does contribute to differences in the rated importance of Mintzberg's managerial roles. In their study, the disseminator, figurehead, negotiator, liaison and, spokesperson were found to be more important at the higher levels than at the lower levels. Lower level managers rated interpersonal roles (specifically leadership) as more important for successful job performance.

According to Mintzberg (1980), leadership involves interpersonal relationships, motivational activities, and an integration of individual and organization goals. Because lower level managers are closest to the actual supervision of non-managerial personnel, leadership behavior should be important at this level, e.g., department chair (Pavett & Lau, 1983).

In regard to the finding that there is a great deal of unanimity among PA chairs and faculty about the perceived role use and importance of the roles (as defined by Mintzberg) in regard to the job of a PA chair, no examples in the education literature could be found to support this unanimity. However, there was one example, not based on Mintzberg's managerial model, which describes the overall characteristics of physical therapy (PT) chairs as perceived by PT chairs and faculty (Perry, 2000). In this study PT chairs and faculty shared a great deal of unanimity regarding the perceived importance of roles and responsibilities of PT department chairs. This finding demonstrates unanimity among chairs and faculty, but says nothing about unanimity among chairs and faculty in regard to Mintzberg's model. No examples in the business literature were found to support unanimity among business managers and business employees in regard to Mintzberg's model, however,
Pavett and Lau’s (1983) data suggests that the relative importance managers place on managerial roles was similar for all types of managers.

The decisional role category was the only one where the role constructs were statistically different between the chair and faculty groups (although only for two of the four roles). The negotiator role was reported less often by faculty as a role in which chairs should engage. The entrepreneur role was reported more often by experienced chairs when compared to novice chairs in terms of use and importance. Although reasons for these incongruent perceptions of managerial role use were not collected on either survey, one can make some basic assumptions as to why this occurred.

In regard to the negotiator role, one that Mintzberg (1973) describes as vital to the work of a manager (Mintzberg, 1973, p. 91), it is often used behind the scenes to assure that deals materialize. Because of the nature of the negotiator role and its description, this role may be transparent to faculty and one that may never surface as an obvious role utilized by a chair. In regard to the entrepreneur role, Mintzberg (1973) views this role as one that focuses on all managerial work associated with systematic change in ongoing (as well as new) organizations in which managers spend much of their time scanning their organizations, looking for opportunities and for situations that may be considered problems (Mintzberg, 1973, p. 78). That is, this role requires assimilation of important events, rather than analyzing gradual trends displayed in routine reports. Therefore, it was a role that was more likely to be used by more seasoned and experienced chairs.
The figurehead role warrants a brief note as this role was rated low by both chairs and faculty. The figurehead role, defined by Mintzberg as a symbolic head which obligates one to perform a number of routine duties of a legal or social nature, is more in line with higher level managers, such as chief executives (Pavett & Lau, 1983). There is research that also suggests that managers with less than 5 years of experience do not place as much emphasis on figurehead role compared with managers with more than 5 years of experience (Anderson, 2002). This role was likely perceived by PA chairs and faculty as incompatible with the position of a PA department chair, as PA chairs are involved in direct supervision of faculty and required by accreditation standards to be directly involved in the daily operations of the department (ARC-PA, 2001). No differences in importance of the figurehead role between novice and experienced PA chairs were noted in the study data.

Limitations

These data must be interpreted with the caveat that they are based on a small sample size, a narrow cross-section of respondents, and generalizations to department chairs and programs other than those of accredited physician assistant will be limited.

In considering the overall design and analysis of this study, every effort was made to identify possible threats to validity. Regarding survey validity, the component evaluating managerial roles was taken from Mintzberg's theory of managerial roles, which is supported by the work of Lau's research group (Lau, Newman, & Broedling, 1980) Pavett and Lau (Lau & Pavett, 1980; Pavett & Lau, 1982; 1983; 1985) and Seagren's community college department chair research group
(Seagren, et al., 1994). These works confirm the validity of Mintzberg’s constructs and their applicability to the evaluation of managerial work.

In regard to construct validity, it should be noted that even though Mintzberg’s roles have been found to be valid in research involving managers, the roles may inadvertently create bias among subjects when determining role use and importance. For example, Mintzberg’s roles may have had different meaning in 1968 (when his study was completed). The leader role (as defined by Mintzberg) includes motivation, staffing, and training of subordinates. The contemporary view of the leader role includes more lofty descriptions such as providing a clear vision or strategic planning (Kotter, 1996). Similarly, the liaison role may be viewed differently today as more of a “middle man” as opposed to a “networker” as Mintzberg describes.

Because of the small population of interest, a convenience sample was required (as opposed to a random sample), which increased the risk of error when interpreting the data. However, this study was descriptive and exploratory in nature and not intended for any other use.

Another limitation of this study was that the variables selected for study are only contributing factors to the function of a department chair. That is, they comprise a small piece of the larger puzzle.

*Overall Significance of the Study Findings*

The identification of the leader role as one that was used most by PA chairs and one that was viewed as most important by PA chairs and faculty was consistent with Mintzberg’s assertions and supported by other research evaluating management
behavior (Mintzber, 1973; Pavett & Lau, 1983). Roles that were viewed as less important by PA chairs and faculty were also consistent with Mintzberg’s views on management behavior for PA chairs. These role delineations for PA chairs (as reported by PA chairs and faculty) should be helpful to the profession and may lead to development programs that appropriately inform those about the function of a PA chair who are interested in becoming a PA chair or for those who already serve in this position. It was also reassuring to know that this set of academic administrators was functioning in the appropriate realms of management as outlined by Mintzberg and others. Furthermore, the study results indicated that PA chairs were in agreement with the way Mintzberg’s model can be used to describe PA chair roles.

Conclusions

The results suggest that the ten roles used identified by Minzberg apply to PA department chairs job as perceived by PA department chairs and faculty. Based on the results and discussion of this study, the following conclusions were drawn:

1. Physician Assistant Department chairs were on average middle aged, predominately Caucasian, had a master’s degree, and more than 7 years of PA chair experience.

2. On average, the PA chair had seven years of prior PA faculty experience and 12 years of full-time practice as a PA.

3. Very few PA chairs reported prior administrative experience in PA education or other higher education fields.
4. More than 30 percent of PA chairs indicated that within the next five years they will either retire or move to a higher position in the same or different institution.

5. Both PA chairs and faculty identify the leader role as one that was used most by PA chairs and one that was viewed as most important.

6. Both PA chairs and faculty agreed that PA chairs were more concerned about functioning in the interpersonal realms of Mintzberg's managerial roles as opposed to the informational and decisional realms.

7. There was a great deal of unanimity among PA chairs and faculty about the perceived role use and importance of the roles in regard to the job of a PA chair.

8. Selection of Mintzberg's model served as an appropriate framework for describing PA chairs in an academic setting.

**Opportunities for Further Research**

The following recommendations for future research are made:

1. Replicate this study methodology in other similar academic health profession disciplines to further evaluate the usefulness of Mintzberg's managerial role model.

2. Conduct a longitudinal study in which novice chairs are identified as they assume the chair position and evaluate whether their perception in regard to managerial roles change over time.
3. Evaluate faculty perception of chair duties from a standpoint of experienced versus novice faculty.

4. In regard to number 3, follow novice faculty to see of their perception of PA chair roles change over time.

5. Develop a model for teaching leadership to novice and experienced PA chairs that might also be useful for chairs of other health professions.

6. Evaluate PA chair roles from the perspective of their supervisors (e.g., Deans).

7. After completing number 6 above, build a normative model from chair, faculty, and supervisor data that may be used to evaluate candidates for PA chair positions.

Concluding Comments

This study used the constructs of Mintzberg’s managerial role model to evaluate the work of PA department chairs. The main reason for selecting this model was Mintzberg’s recognition of managerial roles and that functional specialty influences the relative importance of the various managerial roles (Pavett & Lau, 1985). This characteristic makes Mintzberg’s model useful for evaluating a broad range of management positions, including academic managers. In this regard, PA department chairs emphasized the leader role. Furthermore, PA department chairs appeared to find the constructs of Mintzberg’s model to be a useful way of describing their work activities.

Further research among chairs in other academic disciplines using Mintzberg’s model will help to further evaluate the usefulness of Mintzberg’s
managerial role model. The end product is to identify the important aspects of academic managerial work for use in recruiting, retaining, and mentoring those who find themselves interested in or working in these positions.
References


Appendix A

Department Chair Telephone Interview

Script (read to the study subject)

The following telephone survey was developed for my doctoral dissertation, at the University of Missouri-St. Louis, to further evaluate managerial roles PA department chairs/program directors use when interacting with other department chairs/program directors, deans, faculty, students, and community partners. Since you have been identified as a PA department chair/program director, I will ask you to respond to a series of statements (should take no more than 15 minutes to complete). Results of this survey will likely assist those interested in further defining PA chairs/program directors and determining future directions in chair/program director development programs. The results of this survey will remain confidential. Your willingness to participate in this interview implies your consent to participate in this study. This study has been approved by Wichita State University and University of Missouri-St. Louis IRB committees and the Association of Physician Assistant Programs.

Background Information (read to study subject)

The theory of managerial roles, as described by Henry Mintzberg (see figure on the third page) provides the supporting framework for evaluating PA department chair roles for this study. Mintzberg's management model is descriptive in nature and characterizes roles common to the work of all managers, which are divided into three groups: interpersonal, informational, and decisional. The interpersonal roles (i.e., figurehead, leader, liaison) ensure that information is provided. The informational
roles (i.e., monitor, disseminator, spokesperson) link all managerial work together. The decisional roles (i.e., entrepreneur, disturbance handler, resource allocator, negotiator) make significant use of the information. Mintzberg further points out that the many demands faced by managers, forces them to use these multiple roles. Although it is unknown at this point, it is assumed the work of a PA department chair can be described by the underlying tenets of Mintzberg's model.

1. In your opinion, how can Mintzberg’s managerial role theory be used to describe PA department chair roles?

2. Describe the managerial roles you use when you have interactions with other chairs in your institution? Give examples.

3. Describe the managerial roles you use when you have interactions with your Dean? Give examples.

4. Describe the managerial roles you use when you have interactions with your faculty? Give examples.

5. Describe the managerial roles you use when you have interactions with your students? Give examples.

6. Describe the managerial roles you use when you have interactions with community partners? Give examples.
Mintzberg's Model of Managerial Roles*

Appendix B

Department Chair/Program Director Survey Review

Method

Four physician assistant department chairs were identified to review the Physician Assistant Education Department Chair/Program Director Survey. Each reviewer was considered an expert in physician assistant education issues.

Each chair was asked to provide feedback on the survey including the content, organization, and relevance to the following research questions:

- Question 1: Which managerial roles (as described by Mintzberg) do PA department chairs report using as administrators?
- Question 2: Which managerial roles (as described by Mintzberg) do PA department faculties report department chairs using as administrators?
- Question 3: What is the difference in use of managerial roles as reported by PA department chairs and PA department faculty?
- Question 4: Which managerial roles (as defined by Mintzberg) do PA department chairs perceive as important in their work as a department chair?
- Question 5: Which managerial roles (as defined by Mintzberg) do PA department faculties perceive as important in the work of a department chair?
- Question 6: What is the difference of importance PA department chairs place on Mintzberg's managerial roles versus PA department faculty?
- Question 7: What is the difference of importance experienced PA department chairs place on managerial roles (as defined by Mintzberg’s model) versus novice PA department chairs?
• Question 8: What is the difference in use of managerial roles as reported by experienced and novice PA department chairs?

Additionally, each chair was asked to respond to the following questions:

• Are there other items that should be added to sections I-III (general characteristics)?

• Are there items that should be added to section IV?

• Overall, do you think this survey will adequately answer the research questions?

Participants

The following program department chairs agreed to participate.

• Department of Physician Assistant Studies
  University of Texas-San Antonio

• Department of Physician Assistant Studies
  University of Texas-Southwestern

• Department of Physician Assistant Education
  Saint Louis University

• Department of Physician Assistant Studies
  University of Texas-Galveston

Summary of Comments

• Are there other items that should be added to sections I-III (general characteristics)?

  1. This (the survey) captures all of the important demographic data I can think of.
2. Question 1-2 allows for multiple answers, may want to change directions.

3. May want to ask a specific number, instead of a range of numbers (i.e., questions 5-8).

4. Need to clarify question 10. Programs or schools? What does "top" mean?

5. Questions 19-22 may need to break categories down (i.e., 1-25%, 26-50%, etc.)

6. Question 29, clarify, may be overlapping

- Are there items that should be added to IV-IX (roles, tasks, skills, etc.)?

  1. Here are areas that are also important to me:

     a. The importance of my physical and mental health and my ability to succeed

     b. Willingness to accept responsibility

     c. Capacity to motivate faculty

     d. Capacity to win and hold trust

     e. Flexibility

  2. When your chart runs to another page, you should put the statement and scale at the top of each page.

- Overall, do you think this survey will adequately answer the research questions?

  1. I appreciate the opportunity to review your survey. It is very well done instrument that will gather important information about how and what we do.

  2. Interesting survey
3. Should provide good information that can be integrated into professional development and training of faculty considering chair positions.

4. In looking back over the answers I supplied, some of my "neutral" responses might be interpreted as apathy or disinterest on a Likert scale, when in reality they indicate that I am very comfortable with where these elements are currently.

5. I like this and think it will be interesting. I think it will be interesting to compare to the "old" chair to the "new" chair.

Use of Feedback

- Feedback was used in EDUC 414B (Exit Course) for preparation of the dissertation proposal, specifically chapter 3.

- Comments from reviewers did not indicate that major changes were needed (other than clarifications and a decision to focus on the role constructs as defined by Mintzberg).

- Overall, the feedback indicated adequate face validity as determined by the reviewers, thus appropriate for PA education chairs.
Appendix C

Physician Assistant Education Department Chair and Faculty Surveys

Approved for use by the University of Missouri-St. Louis IRB on August 15, 2003 (IRB # 030815M). Additional approvals granted by Wichita State University IRB on June 19, 2003 and the Association of Physician Assistant Programs on June 23, 2003.

Physician Assistant Education Chairperson Survey (administered in an online format)

Purpose and Directions:

The following survey was developed for my doctoral dissertation, at the University of Missouri-St. Louis, to evaluate the managerial roles of PA department chairs/program directors. Since you have been identified as a PA department chair/program director, the survey will ask about your general characteristics and managerial roles in relation to your job as a PA department chair/program director. Results of this survey will likely assist those interested in further defining PA chairs/program directors and determining future directions in chair/program director development programs.

Please indicate your responses using this online survey. As you complete this survey key terms are being utilized: "Chair" means comparable position/title such as director, assistant dean, or department head. By "academic unit" we mean your department, division, area, or section you administer. Please note that certain responses to questions refer you to answer other questions, therefore, depending on how you respond, you may be leaving certain questions/responses "blank." The results of this survey will remain confidential. Your willingness to participate in this survey implies your consent to participate in this study. This study has been approved by Wichita State University and University of Missouri-St. Louis IRB committees and the Association of Physician Assistant Programs. Completion of this survey should take no longer than 20 minutes.

Consent Acknowledgement (Check one): ___ Yes (proceed) ___ No (Stop, do not submit)

Section I: Characteristics of Your Instructional Unit:

1. Your present occupation:

   a. Chair
   b. Head
   c. Both Chair and Head
   d. Director/Coordinator
   e. Asst/Assoc Dean
f. Other ___________

2. Name of the instructional unit for which you are responsible:
   a. Department of ___________
   b. Division of ___________
   c. Area of ___________
   d. School of ___________
   e. Other ___________

3. Is your instructional unit identified above:
   a. Freestanding unit on a college/university or military campus
   b. Located within a school/college on a college/university or military campus
   c. Other ___________

4. Average student class size in your unit:
   Number ___________ (i.e., number you admit each year, both full and part-time)

5. Student headcount (part-time) in your unit:
   Number ___________ (i.e., number who are admitted as part-time and/or decelerated)

6. Full-time faculty (headcount) in your unit:
   Number ___________ (including yourself)

7. Part-time faculty (headcount) in your unit:
   Number ___________ (if none, enter zero)

8. Years your unit has been operating as an instructional unit:
   Years ___________

9. Indicate the type of degree conferred on graduates from your unit:
   a. Certificate ___Yes ___No
   b. Associate ___Yes ___No
   c. Bachelor's ___Yes ___No
   d. Master's ___Yes ___No
10. Below are listed program areas typically offered in universities, colleges or schools where PA programs are located. Identify the top three program areas with the largest enrollment in your institution.

a. Anesthesiologist Assistant     b. Athletic Trainer

c. Cardiovascular Technology     d. Cytotechnology

e. Dental Hygiene     f. Diagnostic Medical Sonography

g. EMT-Paramedic     h. EMT-basic

i. Electroneurodiagnostic Technologist     j. Health Information Administration/Tech

k. Kinesiotherapy     l. Medical Assistant

m. Medical Illustrator     n. Medical Technology

o. Nursing     p. Occupational Therapy

q. Ophthalmic Medical Practitioners     r. Orthotic and Prosthetic Technologist/Tech

s. Perfusion     t. Physical Therapy

u. Physician     v. Physician Assistant

w. Radiologic Technology     x. Respiratory Therapy

y. Surgical Assisting     z. Surgical Technology

aa. Other ____________________________
Section II: Characteristics of Your Campus and/or Unit:

11. Estimated number of full-time students (headcount) on your campus:
Number ________ (do not use commas, for example enter 12000, not 12,000)

12. Estimated number of part-time students (headcount) on your campus:
Number ________ (do not use commas, for example enter 12000, not 12,000)

13. Estimated number of full-time faculty (headcount) on your campus:
Number ________ (do not use commas, for example enter 1200)

14. Estimated number of part-time faculty (headcount) on your campus:
Number ________ (do not use commas, for example enter 1200)

15. Estimated number of chairpersons (or comparable position) on your campus:
Number ________ (do not use commas, for example enter 1200)

16. Your ARC-PA accreditation status:
   a. Provisionally accredited
   b. Full accreditation
   c. Probation

17. Accrediting region where your campus is located:
   a. New England Association of Schools and Colleges
   b. Middle States Association of Colleges and Schools
   c. Southern Association of Colleges and Schools
   d. North Central Association of Colleges and Schools
   e. Northwest Association of Schools, Colleges and Universities
   f. Western Association of Schools and Colleges
18. The instructional focus of your campus:
   a. Traditional liberal arts and sciences
   b. Liberal arts and science with professional education (ie, health professions, engineering, medicine, business)
   c. Professional education only (ie, health professions, engineering, medicine, business)

19. The primary source of your funding:
   a. Public
   b. Private (if private, go to question 24)

20. If public, degree of funding support from the state:
   a. 0%
   b. 1%-33%
   c. 34%-66%
   d. 67% or more

21. If public, degree of funding support from the county/region:
   a. 0%
   b. 1%-33%
   c. 34%-66%
   d. 67% or more

22. If public, degree of funding from local/city:
   a. 0%
   b. 1%-33%
   c. 34%-66%
   d. 67% or more

23. If public, degree of funding from student fees:
   a. 0%
   b. 1%-33%
   c. 34%-66%
   d. 67% or more
24. The individual or group responsible for appointing/electing department chairs/directors (or comparable position):
   a. Elected by faculty
   b. Appointed by administration
   c. Combination of faculty/administration
   d. Other ____________

Section III: Personal Information:

25. Your age:
    Age ____________

26. Your gender:
   a. Female
   b. Male

27. Your race:
   a. African American
   b. Asian or Pacific Islander
   c. Native American
   d. Hispanic/Latino
   e. White
   f. Multi-ethnic
   g. Other ____________

28. Number of years of your professional experience working in PA education programs as a faculty member (not a chair or program director and not an occasional lecturer or preceptor):
    Years ____________ (if none, enter zero)

29. Number of years of your professional experience working in PA education programs as a chair or director:
    Years ____________

30. Number of years of your professional experience working in PA education programs in other administrative positions (i.e., admissions coordinator, administrative assistant):
    Years ____________ (if none, enter zero)
31. Number of years of your professional experience working as a full-time clinical PA or equal number of years if part-time:

Years ____________________ (if none, enter zero)

32. Prior to working in PA education positions, did you have prior experience working in higher education institutions as a faculty member?

a. Yes
b. No

33. Prior to working in PA education positions, did you have prior experience working in higher education institutions as an administrator?

c. Yes
d. No

34. Are you a physician assistant?

a. Yes
b. No

35. Is your appointment as chair or director limited to a specific term?

a. Yes
b. No (if you chose no, go to question 37)

36. If yes, length of term:

a. Less than 3 years
b. 3 years
c. More than 3 years

37. Is the appointment renewable?

a. Yes
b. No

38. Do you receive reassigned or released time from teaching for being a chair?

a. Yes
b. No
39. How many courses are you required to teach per year?
   a. 1 course
   b. 2 courses
   c. 3 courses
   d. 4 courses
   e. 5 courses
   f. Not required to teach any courses

40. Do you receive a stipend for being a chair (or comparable position)?
   a. Yes
   b. No (if you chose no, go to question 42)

41. If yes, how much (on an annual basis)?
   Amount $___________ (do not use commas, example 15000)

42. Your annual salary (including stipend if applicable):
   Amount $___________ (do not use commas, example 75000)

43. Average number of hours you work in a typical week as a chair (or comparable position):
   Hours ___________

44. Highest academic degree you have achieved:
   a. Associate's
   b. Baccalaureate
   c. Master's
   d. Doctorate
   e. Other ___________

45. Your professional plans in the next five years:
   a. Stay at the same PA program
   b. Move to another PA program
   c. Move to a higher position in the same institution
   d. Move to a higher position in a different institution
   e. Retire
   f. Other ___________
46. If you plan to stay at the same PA program, what are your career plans for the next five years?

a. Remain in the chair position
b. Move to a faculty position
c. Move to another administrative position
d. Other ___________
e. Not applicable

47. If you plan to move to another administrative position, what is the position to which you aspire?

a. Associate Dean ___Yes ___No
b. Dean ___Yes ___No
c. Vice-President ___Yes ___No
d. Campus President ___Yes ___No
e. System Chancellor ___Yes ___No
f. Other ____________ ___Yes ___No
Section IV: Roles:

A. First, indicate how you perceive your role as an administrator (not your role in teaching or scholarship/research). Indicate the degree of importance of each role to you in your current position as an administrator, with 1 being not important and 5 being very important.

B. Second, (in the last column) indicate the average amount of time you spend functioning in the following roles in your current job. Indicate in percentages (must add up to 100%)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Role</th>
<th>Definition (from Mintzberg, 1973, <em>The Nature of Managerial Work</em>)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Percent of Time Spent in Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>Figurehead</td>
<td>Symbolic head; nature of position obligates one to perform a number of routine duties of a legal or social nature</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>49</td>
<td>Leader</td>
<td>Responsible for the motivation, staffing, and training of subordinates</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>50</td>
<td>Liaison</td>
<td>Maintains self-developed network of outside contacts and informers</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>51</td>
<td>Monitor</td>
<td>Seeks and receives wide variety of special information (much of it current) to develop thorough understanding of organization and environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>52</td>
<td>Disseminator</td>
<td>Transmits information received from outsiders or from other subordinates to members of the organization</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>53</td>
<td>Spokesperson</td>
<td>Transmits information to outsiders on organization's plan, policies, actions, and results; serves as an expert on organization's industry</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>54</td>
<td>Disturbance handler</td>
<td>Responsible for corrective action when organization faces important, unexpected disturbances</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>55</td>
<td>Entrepreneur</td>
<td>Searches organization and its environment for opportunities and initiates &quot;improvement projects&quot; to bring about changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>56</td>
<td>Resource allocator</td>
<td>Responsible for the allocation of organizational resources of all kinds, making or approving of all significant organizational decisions</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>57</td>
<td>Negotiator</td>
<td>Responsible for representing the organization at major negotiations</td>
<td></td>
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<tr>
<td>58</td>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>59</td>
<td>Other (specify)</td>
<td></td>
<td></td>
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Thank you for completing this survey. Results will be mailed to all department chairs and faculty after the study has been analyzed and reported.
Physician Assistant Education Chairperson - Faculty Survey (administered in an online format)

Purpose and Directions:

The following survey was developed for my doctoral dissertation, at the University of Missouri-St. Louis, to assist in the evaluation of managerial roles PA department chairs/program directors use. The survey will ask about your perceptions regarding the managerial roles PA department chair/program directors use and the roles you feel are most important in their job. Results of this survey will likely assist those interested in further defining PA chairs/program directors and determining future directions in chair/program director development programs.

Please indicate your responses using this online survey. As you complete this survey, please keep in mind a "Chair" means comparable position/title such as program director. The results of this survey will remain confidential. Your willingness to participate in this survey implies your consent to participate in this study. This study has been approved by Wichita State University and University of Missouri-St. Louis IRB committees and the Association of Physician Assistant Programs. Completion of this survey should take no longer than 10 minutes.

Consent Acknowledgement (Check one): ___ Yes (proceed) ___ No (Stop, do not submit)

(Survey begins on next page)
Section I: Roles:

A. First, think about how PA department chairs might engage in the following roles as an administrator (not their role in teaching or scholarship/research). After taking time to think about these roles, indicate how important you feel each role is in relation to a PA chair position, with 1 being not important and 5 being very important.

B. Second, (in the last column) indicate the average amount of time a chair should spend functioning in the following roles. Indicate in percentages (must add up to 100%)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Role</th>
<th>Definition (from Mintzberg, 1973, <em>The Nature of Managerial Work</em>)</th>
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<tr>
<td>11.</td>
<td>Other (specify)</td>
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<tr>
<td>12.</td>
<td>Other (specify)</td>
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</tr>
</tbody>
</table>

Section II: Personal Information:

13. Your present job title:

   a. Academic coordinator
   b. Clinical coordinator
14. Your age:
   Age ____________

15. Your gender:
   a. Female
   b. Male

16. Your race:
   a. African American
   b. Asian or Pacific Islander
   c. Native American
   d. Hispanic/Latino
   e. White
   f. Multi-ethnic
   g. Other ____________

17. Number of years of your professional experience working in PA education programs as a faculty member (not a chair or program director and not an occasional lecturer or preceptor):
   Years ____________

18. Number of years of your professional experience working in PA education programs as a chair or program director:
   Years ____________ (if none, enter zero)

19. Number of years of your professional experience working in PA education programs in other administrative positions (i.e., admissions coordinator, administrative assistant):
   Years ____________ (if none, enter zero)

20. Number of years of your professional experience working as a full-time clinical PA or equal number of years if part-time:
   Years ____________ (if none, enter zero)

21. Prior to working in PA education positions, did you have prior experience working in higher education institutions as a faculty member?
   a. Yes
   b. No
22. Prior to working in PA education positions, did you have prior experience working in higher education institutions as an administrator?
   a. Yes
   b. No

23. Are you a physician assistant?
   a. Yes
   b. No

24. Highest academic degree you have achieved:
   a. Associate's
   b. Baccalaureate
   c. Master's
   d. Doctorate
   e. Other __________

Thank you for completing this survey. Results will be mailed to all department chairs and faculty after the study has been analyzed and reported.
I will mail a copy to you. We would appreciate knowing how you plan to use the survey and a copy of any results you obtain. A team of our CSHPE are planning to do a follow up of that study.

>Dear Dr. Seagren,
>
>I'm trying to get a copy of the International Community College Chair Survey and Report, which you authored. Any ideas of how I might go about getting a copy? Any help would be greatly appreciated.
>
>Thanks--Rick
>
>Richard D. Muma
>Chair and Associate Professor
>Department of Physician Assistant
>Wichita State University
>1845 Fairmount
>Wichita, KS 67260-0043
>316/978-3011
>richard.muma@wichita.edu

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Alan T. Seagren
Professor of Educational Administration
118 TEAC
University of Nebraska-Lincoln
Lincoln, NE 68588-0360
Phone & Voice Mail: (402) 472-0972
Fax: (402) 472 - 4300
E-mail: aseagren1@unl.edu
12/06/2003 12:34 PM

Dear Dr. Seagren,

As requested by you below, I'm writing to inform you of my plans for using portions of the Community College Chair Survey. I am a doctoral student at the University of Missouri-St. Louis. The topic of my dissertation is physician assistant academic department chairs. The title of my dissertation is *Use of Mintzberg's Model of Managerial Roles as a Framework to Describe a Population of Academic Health Profession Administrators*. I plan to modify components of your survey, specifically the first 45 items and the section covering roles.

Once the data from this research has been analyzed, I would be pleased to share my results with you.

If you require further information, please contact me at the telephone number (listed below) or by email.

Thank you for your time.

Rick

Richard D. Muma  
Chair and Associate Professor  
Department of Physician Assistant  
Wichita State University  
1845 Fairmount  
Wichita, KS 67260-0043  
316/978-3011  
richard.muma@wichita.edu

On 4/18/2002 03:37 PM aseagren1@uni.edu wrote:

I will mail a copy to you. We would appreciate knowing how you plan to use the survey and a copy of any results you obtain. A team of our CSHPE are planning to do a follow up of that study.

Dear Dr. Seagren,

I'm trying to get a copy of the International Community College Chair Survey and Report, which you authored. Any ideas of how I might go about getting a copy? Any help would be greatly appreciated.

Thanks—Rick
Appendix D

Department Chair Survey Cover Letter

Dear Colleague:

Hello. My name is Rick Muma and I’m the Program Director at Wichita State University’s PA Program. I realize you are very busy, but I need your assistance in completing a very important project. Let me explain. The online survey (linked to this message) was developed for my doctoral dissertation, at the University of Missouri-St. Louis, to evaluate the managerial roles of PA department chairs/program directors. I am very interested in your responses and invite you to link to the online survey below.

The title of my dissertation is:

“Use of Mintzberg's Model of Managerial Roles as a Framework to Describe a Population of Academic Health Profession Administrators”

Since you have been identified as a PA department chair/program director, the survey will ask about your general characteristics and managerial roles in relation to your job as a PA department chair/program director. Results of this survey will likely assist those interested in further defining PA chairs/program directors and determining future directions in chair/program director development programs. For comparison purposes, PA faculty are also being surveyed to measure their perceptions regarding managerial roles of department chairs/program directors.
As you complete this survey key terms are being utilized: "Chair" means comparable position/title such as director, assistant dean, or department head. By "instructional unit" we mean your department, division, area, or section you administer. Please note that certain responses to questions refer you to answer other questions, therefore, depending on how you respond, you may be leaving certain questions/responses "blank." The results of this survey will remain anonymous. The survey has not been coded and I will not be tracking surveys in such a way that your name could be matched to your completed survey. Data will only be reported in an aggregate fashion.

Your willingness to participate in this survey implies your consent to participate in this study. This study has been approved by Wichita State University and University of Missouri-St. Louis IRB committees and APAP's Research and Review Committee. Results of this study will be shared with all PA Program personnel after the study has been completed.

Completion of this survey should take no longer than 10 minutes. The survey was developed using Microsoft FrontPage and optimized for Internet Explorer users. However, it still works in Netscape but the formatting may be different. If you wish to complete the survey in a hard copy format, please reply to this message indicating so with your mailing address.

If you have any difficulties completing the survey, please contact me immediately by replying to this message or calling me at the telephone number below.
If at all possible, please complete the survey by Friday, September 12, 2003.

Thank you very much for your time. I look forward to your completed survey.

Sincerely,
Faculty Survey Cover Letter

Dear Colleague:

Hello. My name is Rick Muma and I'm the Program Director at Wichita State University's PA Program. I realize you are very busy, but I need your assistance in completing a very important project. Let me explain. The online survey (linked to this message) was developed for my doctoral dissertation, at the University of Missouri-St. Louis, to assist in the evaluation of managerial roles PA department chairs/program directors use. The title of my dissertation is:

"Use of Mintzberg's Model of Managerial Roles as a Framework to Describe a Population of Academic Health Profession Administrators"

I am very interested in your perceptions of how PA department chairs/program director's function and invite you to link to the online survey below. The survey will ask about your perceptions regarding the managerial roles PA department chair/program directors use and the roles you feel are most important in their job. Results of this survey will likely assist those interested in further defining PA chairs/program directors and determining future directions in chair/program director development programs. For comparison purposes, department chairs/program directors are also being surveyed to measure their perceptions regarding managerial roles.

As you complete this survey, please keep in mind a "Chair" means comparable position/title such as program director. The results of this survey will remain anonymous. The survey has not been coded and I will not be tracking surveys
in such a way that your name could be matched to your completed survey. Data will only be reported in an aggregate fashion.

Your willingness to participate in this survey implies your consent to participate in this study. This study has been approved by Wichita State University and University of Missouri-St. Louis IRB committees and APAP's Research and Review Committee. Results of this study will be shared with all PA Program personnel after the study has been completed.

Completion of this survey should take no longer than 5 minutes. The survey was developed using Microsoft Frontpage and optimized for Internet Explorer users. However, it still works in Netscape but the formatting may be different. If you wish to complete the survey in a hard copy format, please reply to this message indicating so with your mailing address.

If you have any difficulties completing the survey, please contact me immediately by replying to this message or calling me at the telephone number below.

If at all possible, please complete the survey by Friday, September 12, 2003. Thank you very much for your time. I look forward to your completed survey.

Sincerely,
Vita

Name: Richard D. Muma

Date of Birth: December 6, 1962

Place of Birth: Wichita, Kansas

Education:

University of Missouri-St. Louis, St. Louis, Missouri

1990-1993 Master of Public Health: Community Health (M.P.H.)
The University of Texas-Houston, Houston, Texas

1985-1987 Bachelor of Science: Physician Assistant Studies (B.S.)
The University of Texas Medical Branch, Galveston, Texas

Professional Experience:

April 2002- Present Chair and Associate Professor
Department of Physician Assistant
College of Health Professions
Wichita State University, Wichita, Kansas

January 2001- March 2002 Acting Chair and Associate Professor
Department of Physician Assistant
College of Health Professions
Wichita State University, Wichita, Kansas

July 1999- December 2000 Chair and Associate Professor
Department of Physician Assistant Education
School of Allied Health Professions
Saint Louis University, St. Louis, Missouri

June 1994 - June 1999 Assistant Director and Associate Professor
Department of Physician Assistant
College of Health Professions
Wichita State University, Wichita, Kansas

September 1992 - June 1994 Assistant Professor
Department of Physician Assistant Studies
School of Allied Health Sciences
The University of Texas Medical Branch, Galveston
October 1990 - August 1992
Instructor
Department of Physician Assistant Studies
School of Allied Health Sciences
The University of Texas Medical Branch, Galveston

July 1988 - October 1990
Faculty Associate
Department of Physician Assistant Studies
School of Allied Health Sciences
The University of Texas Medical Branch, Galveston