Stressors Perceived as Important by Department Chairs

by

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Abstract

The role of the department chairs is essential in higher education. Hence, determining the sources of their stressors as well as clarifying the ways these stressors impact their lives could be helpful in identifying solutions that make chairs more efficient both personally and professionally. A three-stage Delphi methodology was used for this study to explore the top stressors that department chairs (4 women, 16 men) across different disciplines at one Canadian university experience and the ways these stressors influence their personal and professional lives. The findings of the study revealed 18 categories of stressors. Among all these categories, the five with the highest level of agreement between department chairs were examined in detail. The top five stressors were: "Personal time for research", "Deadlines", "Task demands", "Time pressure", and "Centralization". These stressors were found to impact the chairs' personal and professional lives adversely. Awareness about stress factors that decrease the efficiency of chairs at work and their satisfaction at home can inform the planning and implementation of initiatives to counter the negative influence of the stressors on department chairs and the whole university as a system.

Résumé

Le rôle des chaises de département est essentiel dans education supérieur. Par conséquent, déterminant les sources de leurs facteurs de force aussi bien que clarifier les manières l'impact de ces facteurs de force leurs vies pourrait être utile dans l'identification des solutions qui rendent des chaises plus efficaces personnellement et professionnellement. Une méthodologie à trois étages de Delphes a été employée pour que cette étude explore les facteurs de force supérieurs que les chaises de département (4 femmes, 16 hommes) à travers différentes disciplines à une une expérience canadienne d'université et aux manières ces facteurs de force influencent leurs vies personnelles et professionnelles. Les résultats de l'étude ont indiqué 18 catégories des facteurs de force. Parmi toutes ces catégories, les cinq avec le de plus haut niveau de l'accord entre les chaises de département ont été examinés en détail. Les cinq facteurs de force principaux étaient : « Personnel heure pour recherche », la « pression de temps » de « dates-limites », la « tâche exige », et la « centralisation ». Ces facteurs de force se sont avérés pour effectuer les chaises personnelles et les vies professionnelles défavorablement. La conscience au sujet des facteurs d'effort qui diminuent l'efficacité des chaises au travail et à leur satisfaction à la maison peut informer la planification et l'exécution des initiatives pour parer l'influence négative des facteurs de force sur des chaises de département et de toute l'université comme système.

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To my lovely family for their unlimited love and support,

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Introduction

Every year hundreds of university faculty members are chosen for the position of department chair without receiving specific training for the job (Bragg, 1980; Gmelch, 1992; Lee, 1985; Tucker, 1993). Department chairs assume their position through different procedures. They may be named through an administrative appointment, by departmental election, or through a process of rotation (Bennett, 1983; Ehrle, 1975; Mobley, 1971; Tucker, 1993).

Once they are appointed as a chair, these individuals will face many new tasks and responsibilities while continuing to fulfill their responsibilities as a regular faculty member (Carroll & Gmelch, 1992; Creswell, Wheeler, Seagren, Egly, & Beyer, 1990). The position of department chair in academia has been characterized as one of the most complex, elusive, and intriguing positions (Gmelch & Burns, 1993). The elusiveness and complexity of the position can be related to the duality of the role as an academic and an administrator. Department chairs are constantly forced to alternate between these core duties, which are organized very differently. On the one hand, they need to maintain their level of scholarship, teaching and supervision. On the other hand, they have to play the role of manager of the department and thus be responsible for managerial functions. Often, the dichotomous nature of the position leads to role conflicts as well as role ambiguities causing stress for the chairs (Lee, 1985; Rasch, Hutchison, & Tollefson, 1985; Singleton, 1987; Staton-Spicer & Spicer, 1987).

Embedded in the nature of the position are a number of stressors that have the potential to make chairs reluctant to serve or continue to serve as chair upon completion of one term. Furthermore, the existence of stressors can render chairs unable to fully function in their various roles and address all responsibilities and duties effectively and efficiently.

Researchers have documented roles, responsibilities, and stressors of department chairs in various universities and countries. However, no study has identified the top stressors that department chairs in Canadian institutions face in their personal and professional daily lives. The results of studies examining universities in other countries cannot be generalized to Canadian institutions as the environmental stressors for department chairs differ across countries due to cultural and educational system differences. The present study attempts to address this gap by examining the top stressors that chairs in a Canadian researchintensive university experience.

Review of the Literature

Definition of Department Chair

Broadly speaking, a person who assumes the position as the leader or manager of an academic department in higher education is referred to as a "department chair". There are various terms that are used interchangeably for this position and these include "convenor", "head" or "leader" (Mathias, 1991; Sarros, Gmelch, & Tanewski, 1997). In this study, the term "department chair" is used to represent one who is responsible and accountable for both academic and administrative matters related to an academic unit. There are two characteristics that department chairs have in common. The first is that typically, they are not formally prepared to fulfill their role. The second is the dual responsibility to both external (i.e., administrators in the institution) and internal groups (i.e., students and other fellow faculty members) (Kremer-Hayon & Avi-Itzhak, 1986). In the

remaining review of the literature on department chairs, similarities between roles and responsibilities and resulting stressors will be discussed.

Roles and Responsibilities.

Managers.

One of the roles department chairs assume is the role of a manager. In fact, this is one role required of them. Associated with this role are two types of administrative tasks to be executed. One is to take care of duties within the department such as administering the budget, managing non-academic employees, and maintaining accurate student records (McLaughlin, Montgomery, & Malpass, 1975). Second, is to be responsible for linking the department to other university units such as central administration. These two core duties take up considerable amount of time but the amount of time needed to perform these duties is not commensurate with reported enjoyment (McLaughlin et al., 1975). It is worth noting that the second duty, linking the department to other units, is a task that is less disliked by chairs (McLaughlin et al., 1975).

Leaders.

Another role that department chairs assume is a leadership role. Chairs have two crucial types of leadership duties to perform. Primarily, they are to provide leadership for faculty members within the department. Functions related to faculty members' selection, support, development, and motivation are related to this leadership duty. While department chairs appear to be fond of providing informal leadership, they tend to be dissatisfied with part of the role related to faculty performance evaluation (Boice & Myers, 1986). The second leadership duty mostly revolves around program development. That is, department chairs

have a key role in enabling academics within the department achieve and fulfill their professional goals (McLaughlin, Montgomery, & Malpass, 1975).

To accomplish leadership duties, chairs must concern themselves first with improving the personal and professional development of faculty members and enhancing the quality of the department. Second, they must aspire to create an environment in the department where faculty and staff can work efficiently (McLaughlin et al., 1975).

Scholars.

Not only are chairs expected to function as managers and leaders, more often than not, they are also expected to maintain their position as a scholar. Since chairs are selected from among faculty members, either from within the same institution or from other institutions, their background is likely to be primarily in scholarship and teaching rather than administration.

McLaughlin et al., (1975) have identified chairs' roles as twofold: a) dealing with processes involved in educating knowledgeable students for a future career, and b) producing and providing new and outstanding programs. Inherent in the first dimension is the academic role which involves teaching and scholarship as chairs continue to remain a member of the professorial corps despite their managerial role. The scholarship dimension of the role appears to remain a favourite even when faculty become chair. When time pressures disable a chair to dedicate sufficient time to this role and responsibility, it turns into a source of frustration (Boice & Myer, 1986).

The demands of administrative duties are added to rather than replace normal academic duties thus putting greater pressure on chairs. "Moving from the

... individualism of a faculty member to the accountability ... of a department chair are the important transitions of moving from faculty to chair. These transitions typically entail the addition and not the substitution of responsibilities; ... chairs are often faced with need to continue their professional achievements while significantly increasing their administrative workload all with the same amount of time available" (Gmelch & Miskin, 2010, p.77).

Although department chairs have to take care of both academic and administrative duties simultaneously, due to time constrains they often end up dedicating more time to administrative duties, which are less enjoyable, and less time to more enjoyable academic duties such as teaching, research, and writing (Boice & Myer, 1986; Aggrawal, Rochford, & Vaidyanathan, 2008).

A survey of over one hundred departments found that chairs spent most of their time organizing reports and budgets, planning activities, and interacting with faculty (Meredith & Wunsch, 1991). Often, the consequences of these kinds of involvement is that chairs do not have enough time to accomplish their own academic work and feel they have to sacrifice their own professional growth when they accept the position of being a chair (Brag, 1980; Lee, 1985; Gmelch & Miskin, 2010). This is particularly true in research and doctoral granting institutions where chairs strongly feel that their academic discipline is of high importance but in fact few are able to meet their own expectations of personal and/or professional performance (Carroll and Gmelch, 1994). Aggrawal, Rochford, and Vaidyanathan (2008) also found that while tasks such as evaluating performance, paper work, and decisions which influence lives of students, staff and faculty were sources of stress, the primary stressor for chairs had to do with

time constraints resulting in the inability to perform personal academic tasks. Not having adequate time to spend with family, friends, and leisure appear to be another stress causing factors for chairs (Gmelch, 1991). In summary, the scope of demands placed on department chairs presents them with a variety of stressors.

These are discussed in the following section.

Department Chairs and Stress

Chairs are fond of saying that they are between a rock and a hard place since they are connectors between central administration and the department. As middle-level managers they take fire from both sides of the frontline. What chairs should know first, however, is that the present realities of higher education place almost every manager and leader between diverse, sometimes conflicting, constituent groups (Chou, 2006, p.ix).

This "classic person-in-the-middle" role is the source of a great deal of frustration and agony, causing stress in the personal and professional lives of chairs (Burns & Gmelch, 1995, p.13).

Various studies have concluded that since department chairs assume different roles such as manager, leader, and scholar, they are likely to experience pressure from different kinds of stressors. In a study of department chairs in which a sample of 100 institutions were randomly selected from more than 230 research and doctorate granting institutions, four factors were found to be sources of stress (Burns & Gmelch, 1992).

a) Faculty Role Related Stress: Chairs have specific tasks, time commitments, and beliefs about their role as faculty members. The obstacles that chairs face to fulfill these responsibilities are characterized as faculty role stress.

Burns and Gmelch (1992) found that the most stressful situation for chairs was to find the time to prepare manuscripts for publication. One of their conclusions was that generally, being a department chair can be disruptive to chairs' ability to continue as active scholars and teachers and this may become a source of stress.

- b) Administrative Relationship Related Stress: Administrative relationships encompass situations surrounding a chair's role in representing the department to administration as well as acting as a conduit of information from administration to the department. The highest stressful situation for the chairs in the Burns and Gmelch (1992) study was mainly the one that dealt with department chairs' relationships with their superior administrators. Complying with rules and regulations, feeling that others do not understand chair's goals and expectations, and receiving inadequate administrative recognition contributed to administrative relationship stress. Higgerson (1996) has also highlighted the significance of the nature of the relationship between the dean and the department chair: "Department chairs must maintain a productive working relationship with the dean if they are to successfully represent the department... Everyone loses when there is an ineffective working relationship between the dean and the department chair' (p. 202).
- c) Role Ambiguity Related Stress: This stressor pertains to all types of uncertainty about the position and associated responsibilities (French & Caplan, 1973; Kahn, Walf, Quinn, Snoek, & Rosenthal, 1964; Pertain, 1983). The stressful factors identified by Burns and Gmelch (1992) dealt with the amount of training, level of responsibility, obligations and commitments that chairs perceive

as necessary to fulfill their responsibilities effectively, and the amount of information chairs have regarding their role.

e) Administrative Task Related Stress: This type of stress encompasses all stressors that have to do with administrative tasks such as meeting deadlines related to preparing reports and other paper work.

In a replication study conducted by the same researchers, over 800 department chairs from research and doctorate granting institutions were sampled (Gmelch, & Burns, 1994). The researchers identified five distinct factors for stress among chairs but these were somewhat different from the factors identified in the previous study (Burns & Gmelch, 1992), These stressors included: task-based stress and role based stress, as well as stress related to conflict mediation, recognition and professional identity. Conflict-mediation (resolving differences with or among colleagues) was found to be the highest stressors for this sample. Moreover, task-based stress, defined as a workload that was too heavy, and professional identity were crucial stress factors among this sample. In contrast, role-based stress, defined as too much responsibility-too little authority, as well as recognition were found to be the least stress causing factors (Gmelch & Burns, 1994).

As is typically the case, in the above studies most department chairs had been faculty members prior to becoming responsible for leadership functions of their respective departments. The shift in responsibilities appears to introduce significant trade-offs both in the personal and professional lives of the chairs. Giving up something that is desirable in their lives or exchanging their personal

interest for something they have to do can put chairs through much pressure and difficulty (Gmelch, 2004).

Role Conflict and Role Ambiguity

Department chairs are often faced with situations where they have to play a role that is in conflict with their value system and sometimes they have to assume multiple roles that are in conflict with one other (Gmelch & Tanewski, 1997). Moreover, department chairs are expected to carry out roles that are not associated with explicit behaviour and performance expectations. The former situation is referred to as role-conflict and the latter as role-ambiguity (Kahn et al., 1964; Rizzo, House & Lirtzman, 1970). Because of the detrimental effect of role-conflict and role ambiguity on organizational commitment, job involvement and job satisfaction, it is critical that department chairs minimize factors that cause stress for them (Fisher & Gitelson, 1983; Fried & Tiegs, 1995; Schaubroeck et al., 1989).

Summary

A fitting conclusion to all the reviewed literature on the roles and stressors of the department chair is to become better aware of what the stress factors are. Stressors that negatively influence department chairs will also adversely affect the department itself. The cost of all these negative outcomes is significant for both individuals and institutions. Gillet-Karam (1999) reports that "burnout and stress are occupational hazards of the department chair job that frequently take a toll on individuals' personal lives, health and outside commitments" (p. 5). As the future life of academic departments and universities are in the hands of department chairs, in order to have a flourishing department, the department chair of this

century requires the skills of "consensus builder, business manager, faculty recruiter, mentor and strategic planner", and ought to be "diplomatic, fair, accessible, ethical, well-informed, objective, patient, flexible and politically sensitive" (cited in Oppegard, 1997, p. 33).

It is very likely that each era and context has its own stress factors that negatively influence the professional and personal lives of chairs. This study was carried out to determine the most salient stressors found among a sample of chairs at a Canadian research-intensive university.

The Stress Cycle

Gmelch (1982) illustrates that stress is one of those concepts for which there is no specific or clear definition. Stress is characterized as "any event that places a demand" (p. 5) on people mentally or physically. It is interesting to note, however, that both negative and positive stimuli can cause the same physiological and psychological response. For instance, a fast heartbeat or rapid breathing is assumed to be a sign of stress. However, these responses can also be caused as a result of an exciting incident such as running into someone special from the past. Broadly speaking, Gmelch (1982) has identified five levels associated with managerial stressors.

Personal stressors comprise level one. "A person's susceptibility to stress is determined by both genetics and developmental characteristics." (p. 5). In fact, similar sources of stress can cause various responses in different people. For example, weak social skills could be considered as personal stressors.

Interpersonal stressors comprise level two. For instance, good or bad working relationships could result in different interpersonal relationships and lead to the

creation of different working environments. Organizational stressors are considered to be level three. These stressors focus more on the organization and the functions related to the position within that organization. Environmental stressors such as room design and noise density are characterized as level four stressors. Private life stressors are considered to be level five.

Kahn (1970) describes the stress cycle as beginning with a stress or demand in the environment. This stress is then received and identified by the individual who subsequently responds to the demand. Finally, the individual's response to the stress causes an effect, either on the person him/herself, or on the environment. If there is a lack of identification or response to the stress or demand by the individual, the stress cycle is halted.

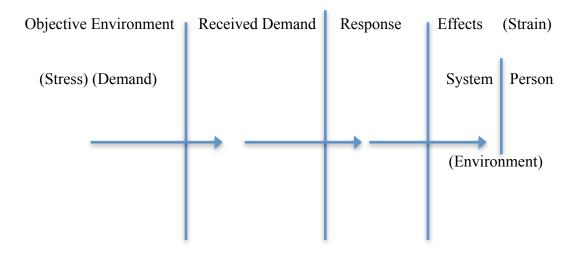


Figure 1. Stages of Stress (Kahn, 1970).

In reference to Figure 2, six years after the development of Kahn's model,

McGrath elaborated on this model and came up with a closed loop four- stage

stress situation. Similar to Kahn's model, in McGrath's (1976) model, the cycle starts with a situation within the environment. The situation or demand is first recognized and then evaluated by the individual (appraisal process). If the individual's perception of the situation brings about displeasing consequences, then a stressful situation is likely to emerge out of the context. After perceiving a stressful situation, the individual looks for the feasible responses (decision process link), and chooses a fitting response. Furthermore, the individual applies the selected response (performance process link) and then the consequences are estimated with respect to whether or not wanted outcomes are accomplished (outcome process).

In line with the concept of perception, Wolff (1953) states that, "the stress accruing from a situation is based in large part on the way the affected subject perceives it" (p.10). What Kahn (1970) and McGrath's (1976) model have in common is the individual's perception of the situation. However, subsequent refinements of these models have provided the chance for further stress research. For instance, Gmelch (1987) elaborated more on the four-stage model suggested by McGrath, and implemented it for professionals in higher education. Figure 3 displays McGrath cycle as deciphered by Gmelch (1987).

The significance of these models to the present study is to primarily recognize the types of stressors present in the environment, and secondly to see what the potential outcome of these stressors might be on peoples' personal and professional lives. Both of these have immediate relevance to the research questions posed in the present study regarding the existence of the stressors and the nature of their impact of chairs' professional and personal lives.

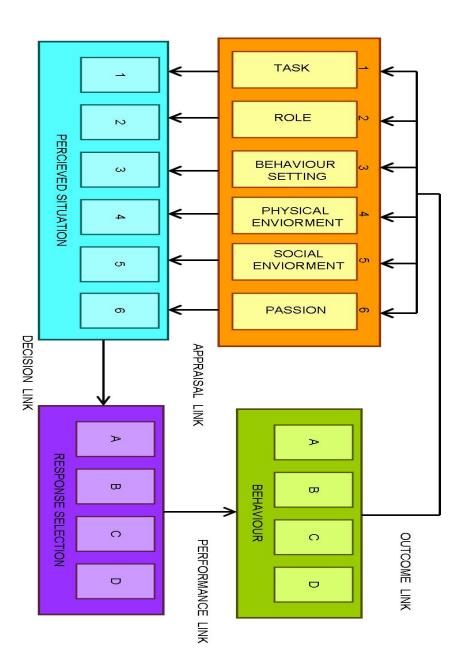


Figure 2. McGrath's (1976) Stress Paradigm. The Stress Cycle With Multiple Input Sources and Outcomes Links.

McGrath's stage	Higher Education Professionals (Gmelch's interpretation)
Stressors	Expectations, salary, workload, interruptions, meetings
Reception	Individual perception
Response	Social, physical, intellectual, entertainment, personal
Consequences	Mental and physical illness

Figure 3. McGrath's Stage of Stressors Combined with Gmelch's Interpretation.

Purpose of the Study

The purpose of the present research was twofold: In the first instance, it was to identify the top stressors that department chairs at a Canadian research-intensive university perceive as present in their daily lives. In the second instance, it was to determine the extent to which these stressors were perceived to interfere with their personal and professional lives.

Research Questions

- 1. What are the top stressors that department chairs encounter in their daily lives?
- 2. In what specific ways do these stressors impact their personal and professional lives?

Methodology

A three-stage Delphi methodology was used for this study. Delphi is characterized as "a method of systematic solicitation and collection of judgments on a particular topic through a set of carefully designed sequential questionnaires, interspersed with summarised information and feedback of opinions derived from

earlier responses" (As cited in Osborne, Collins, Ratcliffe, Robin Millar & Dusch, 2002, p. 697). This methodology was used because it accommodates aggregating the thoughts, opinions and knowledge of experts who are not able to be present for face-to-face interaction for any reason (Moore, 1986). There are three characteristics that distinguish the Delphi methodology from other kinds of interrogative methods. First, there are several repetitions of group responses with interspersed feedback. Second, there is an anonymity associated with group interactions and responses. Third, it is possible to manipulate data collected during the process using statistical analysis (Cochran, 1983; Cyphert, & Gant, 1971; Dailey, & Holmberg, 1990; Uhl, 1983; Whitman, 1990). Delphi, like other methods, has pros and cons associated with its use. There are two advantages to using this methodology. First, it is always possible for people to give their opinions. The Delphi technique creates a form of asynchronous mediated discussion. Second, it forces group members to give responses on the subject under the study, so the achieved consensus reflects reasoned opinions (Murray & Hammons, 1995). The known disadvantages for the Delphi method include the following: Because the researcher formulates the questions, he/she could influence the nature of the responses. Moreover, as participants usually do not get the chance to meet the researcher or one another, it is hard to completely assess their expertise (Murray & Hammons, 1995). In this study, every attempt was made to make use of the advantages of this method while taking account of the disadvantages and limitations in the interpretations of the results.

Participants

Department chairs from all Faculties at a Canadian research-intensive university were considered as potential participants for this study. From the possible invited 92 department chairs, 20 chairs (4 women, 16 men) agreed to participate in this study. The number of participants and their Faculty affiliations for each stage of the Delphi methodology being used in this study are presented in Figure 1. Department chairs initially received an email inviting them to take part in the research study and informing them about the potential contributions that the findings will have in providing support and professional development programs for chairs. The email also included an explanation about the methodology and the amount of time participation in the study would require. Those who responded affirmatively after the initial email received a consent form and those who responded negatively were sent a "thank you" note and taken off of the list. Those chairs who did not respond to the initial email were contacted by phone or visited in person. This resulted in the recruitment of 13 additional participants.

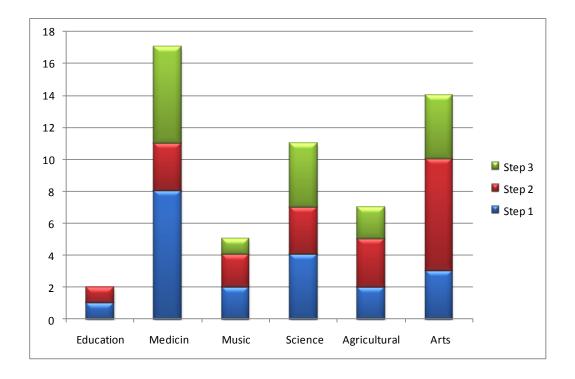


Figure 4. Number of Participants for Each Step of the Delphi.

Data Collection and Analysis

Data were collected in three different rounds. Since the Delphi is an iterative methodology, each iteration provides the means by which data are synthesized, without losing their validity through the interpretations made by the researcher.

Round 1.

In the first round of the study, chairs were asked to generate a list of between 5-20 top stressors that they were experiencing in their role as chair. Once participants provided input, with the help of a member of her research team, the investigator sorted the stressors into 18 categories. The group was able to do this categorization with 83% reliability (Araujo & Born, 1985). The researcher

generated the name of the category but the stressors identified by the participants were placed verbatim under the category heading.

Round 2.

In the second round, department chairs were provided with the list of stressors generated in Round 1; i.e., the eighteen categories of themes along with examples of stressors. Chairs were asked to rate the severity of each theme on a 5 point Likert scale, where 1 indicated very low and 5 indicated very high.

Frequencies, means, and standard deviations were calculated for each theme.

Round 3.

For the third and final round, the five stressors that were most frequently referred to by participants were sent back to participants and they were asked to:

a) state one example or an experience of a time they experienced the stressor, and
(b) explain how the stressor impacted them professionally and/or personally. The written responses were analyzed thematically to identify salient patterns.

Results

Round 1

As mentioned in the methodology, chairs listed a series of stressors in their personal and professional lives. Eighteen themes emerged from their responses.

Table1 displays category headings along with the associated stressors.

Table 1
Categories and Examples of Stressors

Category	Example			
Time pressure	A)	Intense time drain		
	B)	Time constraints		
Deadlines	A)	Deadlines for many things misalign; same time as		
		CIHR deadlines.		
	B)	False deadline.		
	C)	Last minute notifications for important activities.		
	D)	Demands placed on my time without advance		
		notice.		
	E)	Stress of feeling behind all the time.		
	F)	Meeting deadlines.		
	G)	Manage multiple deadlines.		
	H)	Lack of time and resources to plan and implement		
		new and creative initiatives.		
	I)	Managing research and teaching deadline (grant		
		proposal deadline, manuscript, classroom		
		contract) in conjunction with university deadline		
		rhythm (award submissions, annual report).		
Task demands	A)	Keeping on top of an enormous quantity of email.		
rask demands	В)	The tyranny of email and expectations of		
	D)	electronic communication.		
	C			
	C)	Writing official reports, tedious, uncreative work.		

- D) Flow of emails from administration.E) Many different complex issues I have to settle quickly every day.
 - F) Heavy committee work which is tedious.
 - G) Scheduling meetings at various hospitals.
 - H) Many people needing something from you.
 - I) Too much bureaucracy at all levels.
 - J) Sedentary work.
 - K) "Sandwich effect": being between the pressures and demands from below (faculty members) and the lack of response /support/funds from above (faculty, university).
 - Representing the academic culture to the rest of the academic community.
 - M) Amount of administrative work and combining that with visioning and leadership.
 - N) Burden of responsibility for many initiatives.
 - O) Being responsible for a multitude of different kinds of tasks at the same time.
 - A) Saying "NO" to students.
 - B) Managing graduate students' need for mentorship and supervision.
 - A) Difficulty having time and concentration for research when many other small tasks need to be completed.
 - B) Quiet time for research.
 - C) Impact of administrative load on research work.
 - D) Keeps one away from one's research.
 - E) Maintaining a research profile (as chair) despite administrative responsibilities.
 - Keep my research as competitive as it was when I was not chair.
 - G) Not being able to pursue research plans.

Dealing with students

Personal time for research

	H)	Limited time to concentrate fully on my research.
Effect on teaching	A)	Impact of administrative load on teaching
	B)	Teaching duties.
Balancing work-personal life	A)	Juggling the many work demands with the many
		home demands especially when children are
		involved.
	B)	Group leader, teaching and other services to our
		community and mother of one child.
	C)	Impact of administrative load on family matters.
	D)	Working Friday nights and intermittent
		Wednesdays.
	E)	Cancelling family obligation/meetings because of
		chair-related activities.
	F)	Not enough time available to spend with my
		young children.
	G)	Bringing stresses of work home.
	H)	Family-work responsibilities conflict.
	I)	Finding time for myself.
Financial issues	A)	Not having access to any portion of the revenue
		generated by indirect cost of research to support
		departmental research initiatives.
	B)	Limited financial resources to support new
		recruits.
	C)	Not enough resources to help the chair in his daily
		administrative tasks.
	D)	Insufficient resources for mandate.
	E)	Absorbing irrational cuts to over-extended
	,	budgets.
	F)	Allocations of inadequate budgets to essential
	- /	operations.
	G)	Allocating resources to faculty on a merit-based
	9)	Amouning resources to faculty off a ment-based

		rather than entitlement-based scale.
	H)	Uncertainty as the future of our department.
Physical resources	A)	Space limitations.
	B)	Space management.
Collegiality in department		
	A)	Resentment against colleagues who evades
		administrative roles
	B)	Encouraging collegial commitment from the
		academic staff.
	C)	Getting buy-in for new ideas.
	D)	My own shortcoming in taking university business
		seriously and dedicating time by partaking in
		different committees and processes.
	E)	Lack of cooperation on the part of faculty
		members.
Helplessness	A)	Being considered responsible for things over
Trespositions		which you do not have any, or very little power.
	B)	Inability to align reward with responsibilities.
	C)	Feeling of relative powerlessness in negotiating or
	-,	communicating with higher administration.
	D)	Inability to compete with comparable departments
	,	in the financial packages we can offer and
		guarantee to incoming graduate students.
		guarante to meaning graduate statemen.
Support staff issues	A)	Occasionally unreliable support staff.
Support starr issues	B)	Shortage of top-notch support staff.
	C)	Disproportionate administrative and academic
	C)	• •
		support work for demands placed on the
	D)	department by the Dean's area and the university.
	D)	Keeping things running when administrative staff
		are ill or on leave.
	E)	Continuing cuts in financial budgets as this effects

support staff.

F) Interpersonal conflicts with staff.

Lack of an integrated approach between academic units/hospitals

- A) Organizational complexity with multiple partners including the faculty of Medicine, the teaching hospitals and lower campus.
- B) Tensions between clinical demands and admin/educational activities.
- Inter-hospital rivalries are harmful to McGill and taxing to chairs.
- D) Competing agendas between hospitals and university responsibilities.

Inefficiencies in system

- A) Common frustrations of bureaucratic inefficiency.
- B) Getting contradictory information from different administrative units.
- C) The lack of tolerance of the banner system.
- Being unable to ever get university staff on the phone.
- E) Indefinite response time from university officials regarding requests.
- F) Poor support from development office, fundraising structure, not adequately in touch and responsive to chair.
- G) Poor support in recruitment process from university.
- H) A disjointed and mostly unreliable support staff team in the Dean's area.
- Slow/negligible rate of change in large organization.
- Leaders' lack of vision.
- K) Opaque decision-making processes in faculty/central administration.
- A dean that is not transparent and cannot be trusted for promises made.

Centralization

- A) Increasing corporatization of University's mission.
- B) Increasing centralization of authority.
- C) Interference from central administrators in our professional activities.
- The feeling of being the last in the chain of requests from top administration.
- E) Institutional infrastructure that constrain our academic mission.
- F) Use of performance indicators used globally but directed at units without context.
- G) Some initiatives imposed by higher administration must be carried through even if one does not agree with their rational or effectiveness.

Managing academics

- A) Personnel management.
- B) Personality issues.
- C) Colleagues who say things like ' I will resign if \dots '
- D) Meet the request of my colleagues.
- E) Difficult and unreasonable demands from colleagues who expect me to carry out their instructions rather than to make a decision that is in the best interest f the department.
- F) Hostile reactions from colleagues when a decision does not go their way.
- G) Find out unpleasant or negative facts about one's colleagues or administrative procedures.
- H) Managing some colleagues expectations of preferential consideration in teaching assignments, research allocations and general support.
- Difficult conversations with colleagues, some more senior than you.
- J) Resolving personal conflicts.

- K) Personal complaints and criticism from unhappy, uncooperative, egocentric faculty members, which can ruin your day.
- L) Applying standards uniformly and fairly.
- M) Mentoring young faculty.
- N) Working with /without faculty personal health problem and how they impact on job performance.
- O) Retention issues-dealing with touchy colleagues who understandably want to feel valued and that all is being done to retain them.
- P) Saying "NO" to faculty.

Academic performance management

- A) The merit process.
- B) Teaching allocation.
- C) Merit pay.
- D) Evaluation of academic performance for merit.

Knowing the tricks of the trade

- Keeping on top of financial and budget issues, especially at times of budget cutbacks.
- B) Understanding and using the banner system.
- Need to understand complex and very diverse cultures within single departments.
- D) Cope with the large amount of work added to me, in addition to my work as researcher.
- E) New accounting rules.

Round 2

Frequencies, means, and standard deviations were calculated for each of the category heading. Based upon a 5 point Likert- scale, where 1 indicated very low and 5 indicated very high, thirteen of the chairs (61.9%) ranked "Personal time for research" as 5. Fourteen (66.7%) ranked "Task demands" as 4. Eleven

(52.4%) ranked "Deadlines" as 4. Seven (33.3%) ranked "Centralization" as 4. Eight (38.1%) ranked "Time pressure" as 3. Table 2 displays the frequencies and percentages of category ratings. "Physical resources", "Effect on teaching" and "Dealing with students" were rated mostly as 1 or 2 meaning that they were of the least importance to the chairs.

"Personal time for research" and "Deadlines" had a mean of ≥ 4 illustrating that these two category headings were rated as very important by the chairs. "Task demands" and "Time pressure" had a mean of ≥ 3.70 , indicating that they were also viewed as important by department chairs. Seven themes had a mean ranging from 3.00 to 3.38. Though relatively high, these seven themes were not as salient as the top two categories of stressors. The remaining seven themes had means ranging from 1.85 to 2.95 indicating they were the least severe stressors experienced by chairs (See table 2).

Table 2 displays the variance of the means across different disciplines. As shown in this table, the four category headings had standard deviations ≤ 1, indicating a high level of consensus among the chairs for these themes. Of these four themes, "Task demands" had the highest level of consensus among chairs. "Centralization" had the fifth highest level of consensus among chairs with a standard deviation of 1.2. "Inefficiency in system" had the lowest agreement among chairs with a standard deviation of 1.48.

Table 2
Frequency, Mean and Standard Deviation of Categories of Stressor

Category/measure	1	2	3	4	5	М	SD
Personal time for		1	3	3	13	4.40	.94
research							
Deadlines		1	3	11	5	4.00	.79
Task demands			5	14		3.73	.45
Time pressure		1	8	7	4	3.70	.86
Centralization	1	5	4	7	4	3.38	1.20
Financial issues	6	5	6	4		3.33	1.19
Managing		5	8	3	4	3.30	1.08
academics							
Inefficiency in	3	5	5	1	6	3.10	1.48
system							
Academic	1	6	5	6	2	3.10	1.11
performance							
Balancing work	3	4	4	6	3	3.10	1.33
and personal life							
Lack of an	1		2	2		3.00	1.22
integrated							
approach							
Collegiality	3	4	7	3	3	2.95	1.27

Support staff	3	6	5	5	1	2.75	1.16
issues							
Helplessness	3	5	6	4	1	2.73	1.14
Effect on teaching	3	8	6	2	1	2.50	1.05
Knowing the tricks	4	6	7	3		2.45	.99
of the trade							
Physical resources	6	5	6	4		2.38	1.11
Dealing with	6	13			1	1.85	.87
student							

Round 3 Personal time for research.

As previously mentioned, "Personal time for research" was found to be the highest stressor among all the chairs in the study. In general, each chair dealt with this stressor in their own way based on the situation in which they encountered the stressor; however, the impact of the stressor on the professional and personal lives of chairs appeared to be consistent. Professionally, this stressor had the following adverse effects. Chairs: a) ended up having fewer publication and research funds, b) were obliged to cancel or change other important demands and duties, c) were less present on the international scene and as a result, felt they were losing touch with the researchers in the area. The following excerpts are illustrations of these types of impact in the words of participants:

"Stress level is extremely high when you know that your research program is on the line and you don't have enough quality time to work on your grant." (P-20) "To keep my lab going, I had regular lab meetings, but even with that, my presence in the lab decreased and so did my research activity." (P- 6)

"[I] had to discontinue major research project; only participate in short term

"I had to cancel a presentation at a conference or at a workshop because of pressing business in the Department." (P-15)

smaller projects." (P-21)

Personally, the negative impact of "Personal time for research" had to do with feelings of guilt and frustration as well as health issues and devoting personal family time to work matters.

"A recent example is that of synthesizing my research results for revisions on a research paper that were due by a certain date. In order for me to complete this task, I had to give up any time that I had planned to spend with my family on an otherwise pleasant Saturday afternoon." (P-22)

"I am disappointed and feel guilty with respect to others involved in projects with me, whom I am holding up." (P-12)

"Health effects can be severe including heart attack/angina crisis." (P-20)

Notwithstanding the negative influences that "Personal time for research" caused, there were also two positive strategies that chairs applied in order to deal with this stressor. These included asking for help from trusted staff and trying to organize themselves better.

"I have delegated direction of my lab to a junior colleague. I have switched my role to be more of a mentor, and attend as many lab meeting as possible. This way the lab can function independent of me, profit from my advice, and at the same

time allow my junior faculty to advance their career through leadership in this successful enterprise."(P-7)

"I decided last year to devote the 1st 2 hours of each day to research...I have been able to get a respectable amount of work done when I have stuck to the "2 hour rule." (P-23)

Deadlines.

"Deadlines" was rated as the stressor with the second highest impact on the chairs' professional and personal lives. Professionally, the stressor led to changing or cancelling duties and not being able to invest time to complete jobs to their best ability.

"On several occasions, senior university officials have asked me to complete nominations for awards that require extensive work- letters, obtaining cvs, and external letters of reference ... Had to put aside other projects, demands to satisfy such demands. Meant other projects delayed." (P-21)

"Was asked to prepare a report on Department affairs, given a very short turnaround time... Could do the report, but was left with a feeling of unfinished business: I could have done a better job given more time." (P-15)

For the aforementioned stressor, the only negative example that had to do with personal impact was related to the interference of deadlines with their leisure time.

"I was on the beach on a two week holiday last summer and was given 48 hours to get a report in for a CRC renewal. I objected but the Dean kindly asked me to get it in, so I did it after supper and the next morning, once I was able to make contact with the professor in question." (P-9)

However, it is noteworthy that most chairs developed new strategies or ways to cope with this stressor and these strategies included involving staff and students to advance the work, and saying "no" to superiors.

"Clear a laboratory within 48 hours so that renovations could start. Got students and staff to clear laboratory on time. Renovations have not started (> 4 weeks later)."(P-3)

"I have recently had a deadline to respond to a budget cutting exercise imposed by the Dean. The information required to respond to the budget cutting arrived on Friday evening at 6 pm in preparation for a decision-making meeting on the Monday. Deadlines imposed by others at the last minute due to their disorganization will not be respected. In the case cited, I responded that I could not meet the deadline no matter how firm it was." (P-7)

Task demands.

"Task demands" was the stressor rated as the third most important on the chairs' list. The professional impact of this stressor appeared to be similar to those of "Deadlines". The only difference was that chairs put essential departmental tasks on hold in order to complete tasks for their superiors.

"Requests for information from superiors have frequently meant that daily tasks need to be "shelved" in order to respond to "requests" from further up the line."(P-8)

One remarkable personal impact was the merging of their personal lives with their professional lives. Sharing their work-related issues with their families and receiving positive feedback seemed to provide the opportunity to enhance their performance at work.

"Many times it feels like I am being sucked dry of energy and creativity. I complain a lot at home. It helps when I receive positive feedback." (P.19)

Another effective strategy that chairs seemed to like and apply was delegating tasks to their trusted staff.

"I have developed a governance structure that has allowed me to delegate many tasks to highly capable individuals with who I communicate well." (P-7)

"By drawing in colleagues into the task portfolio one increases the sense of collegiality and inclusion." (P-17)

Time pressure.

The fourth important stressor in the study, "Time pressure" had similar impact associated with most of the other stressors. The most pressing concern for chairs was that it left them with little personal time to spend with their families as well as little time for research.

"I have alarms and bells going off all the time, warning me of impending deadlines, and even of approaching ones... The whole pressure of a tight time-management spills over into research and personal time." (P-15)

"I miss out on some things I like in personal life... This often happens when I have clinical commitments – the patient comes first and everything else goes on the back burner." (P-13)

A coping strategy for this stressor was to try to keep themselves less tense by accepting the situation and the inherent presence of tight schedules.

"I have realized that some things just can't get done when I want them to. I either choose not to do them or accept that it will take longer for me to accomplish what I need to do." (P-23)

Centralization.

Centralization was found to be the fifth important stressor. Chairs were of the opinion that having a centralized institution resulted in: a) more work and less ease of decision making, b) less job satisfaction, c) reluctance to make an impact on the general culture of university, d) higher level of stress, and e) little control over their personal schedule. Their responses illustrated that this stressor highly impacts their professional lives and perhaps less their personal lives. The following are examples of their statements:

"This has been a stressor with more of the centralization of the University. It is much easier to have all one's dealing as a Chair with the Faculty level and let Faculty deal with lower campus. I am a firm believer in decentralization of authority." (P-2)

"Interactions become de-personalized. It ends up being more work and less satisfaction." (P-6)

"I've been a Senator for these past 3 years and have attended all meetings with the Provost and Principal that are organized for chairs. At each of these meetings I speak out against the trends that I think are harmful to the university, including centralization. But after realizing that my words have had little effect, I've decided to ignore what's going on until a more democratically-minded administration is put in place." (P-23)

"It's now actually simpler because of centralization but you don't have much control over it which does not trigger a positive feeling. Delays in confirming budgets make planning very difficult and can easily ruin your summer vacation." (P-20)

Discussion

This study participants consisted of 20 department chairs who provided the opportunity to investigate the stressors present in their daily lives. The fact that chairs responded to questions in three rounds through Delphi accommodated the synthesis of their thoughts and knowledge without being present for a face-to-face interaction. Also, the use of Delphi methodology provided chairs with an opportunity to speak more freely about stressors they encountered in their personal and professional lives.

Most of the stressors identified by participants in this study correspond with stressors identified in the literature (see for example Burns & Gmelch, 1992; Walter, Gmelch, & Burns, 1994). Seven new stressors were identified in this study. These stressors include: "Financial issues", "Physical resources", " Helplessness", "Support staff issues", "Lack of an integrated approach between academic units/hospitals", "Inefficiencies in system", and "Centralization". Among all 18-category headings in the study, the five with the highest level of agreement between department chairs were examined in detail. Aside from "Centralization", the other four above-cited stressors, namely "Personal time for research", "Deadlines", "Task demands" and "Time pressures" are consistent with the top stressors found in the literature. However, the order of their importance reported in these studies varies and does not always correspond with the present study's findings (Burns & Gmelch, 1992; Walter, Gmelch, & Burns, 1994). In the reviewed literature, finding adequate time to do research and prepare manuscripts was also found to be the highest source of stress among chairs (Burns & Gmelch 1992).

Tasks such as evaluating performance have been found to be a source of stress for chairs (Boice & Myers, 1986; Aggrawal, Rochford, & Vaidyanathan, 2008) and this was the case in the present study. Contrary to other studies in the literature, recognized stressors in this study did not have anything to do with the amount of training as well as the amount of information chairs had regarding their role. (Burns & Gmelch, 1992; Bragg, 1980; Lee, 1985; Tucker, 1993). Also, conflict mediation, under the category heading "academic management", was not found to be as salient a stressor in the present study as it is suggested in the literature (see for example Gmelch & Burns, 1994).

McGrath (1976) states that the four-stage stress situation model starts with a demand in the environment. The individual first evaluates the demand. Then, after recognizing that the demand is causing a stressful situation, the individual tries to find and choose possible responses and actions. Finally, consequences are estimated regarding whether or not desired outcomes have been accomplished. The research questions of the present study were framed within the first (i.e., appraisal link) and the fourth (i.e., outcome link) stages of the stress model. First, chairs were asked to identify and evaluate environmental stressors. Then, based upon their responses, they were asked to elaborate on the impact of the stressor on their professional and personal lives (performance link). This additional elaboration distinguishes the present study from most other studies which typically have placed greater focus on simply recognizing and ranking stressors as opposed to examining their related outcomes on chairs' lives (Burns & Gmelch, 1992; Walter, Gmelch, & Burns, 1994; Brag, 1980; Lee, 1985; Gmelch & Miskin, 2010).

In line with findings reported in other studies, one of the professional outcomes of "Personal time for research", "Deadlines", "Task demands", and "Time pressure" was the chairs' inability to continue as active scholars and researchers, which consequently became a source of stress for them (Burns & Gmelch, 1992). Also, they were not able to fully take care of administrative functions of their role (Carroll & Gmelch, 1994). The personal outcomes mostly revolved around having little time to spend with family and friends as well as experiencing health issues (Gmelch, 1991).

Another professional outcome of these category headings was that chairs developed coping strategies in order to come to grips with the aforementioned situations. For instance, they delegated tasks to their trusted staff, students, and colleagues as well as tried to be realistic about the stressful situations and accepting or not accepting tasks demanded by superiors.

Findings of the study suggest that chairs prefer to function in a decentralized system, as they believe centralization leads to confusion in administrative affairs. This could be because despite being department managers and leaders, they do not always have the authority to implement their own decisions. Moreover, they assume a role with no clear behaviour and performance expectations. As others have also asserted, this could result in role ambiguity, frustration and decreased job involvement (Kahn et al., 1964; Rizzo, House & Lirtzman, 1970). Moreover, chairs typically carry out multiple roles simultaneously (Carroll & Gmelch, 1992; Creswell, Wheeler, Seagren, Egly, & Beyer, 1990). The diversity of task demands could result in chairs having role conflict as well as diminished job satisfaction.

The present study had several limitations. First, the results of this study are limited in their generalizability due to the fact that all participants came from the same university and the disciplinary representation was not proportionate. Second, the significant difference between the number of male and female participants may have provoked different sorts of stressors, thereby resulting different responses and relevant outcomes.

Future studies will need to examine the personal and professional outcomes when chairs are not able to respond effectively to demands and/or stressors. To this end, the second (decision link) and third (performance link) stage of McGrath's (1976) Stress Paradigm should be also addressed. Moreover, it would be interesting to investigate the effect of development training offered to department chairs and ways in which this training would impact their performance and the way they deal with provoked stressors.

Conclusion

Studies carried out on department chairs in the last twenty years, have focussed primarily on recognizing types of stressors as well as the level of significance of the stressors on chairs. None have examined the outcome of these stressors on the personal and professional lives of chairs. This study has identified the most prominent stressors that chairs in a research intensive university encounter, the level of importance of the stressors to chairs, and the impact of these stressors on the lives of chairs and their professional environment.

Awareness about stress factors that decrease the efficiency of chairs at work and their satisfaction at home can inform the planning and implementation of

initiatives to counter the negative influence of the stressors on department chairs and the whole university as a system.

References

- Aggarwal, P., Rochford, L., & Vaidyanathan. R. (2008). The hot seat: Profiling the marketing department chair. *Journal of Marketing Education*, *31*, 41-51.
- Araujo, J., & Born, G. D. (1985). Calculating percentage agreement correctly but writing its formula incorrectly. *The Behavior Analyst*, 8, 207-208.
- Bennett, J. B. (1983). *Managing the academic department*. New York, NY: American Council on Education/Macmillan.
- Boice, R., & Myers, P. E. (1986). Stresses and satisfactions of chairing in psychology. *Professional Psychology: Research and Practice*, 17(3), 200-204
- Burns, J. S., & Gmelch, W. H. (1992, April). Stress factors, role conflict, and role ambiguity for academic department chairs. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, LA.
- Burns, J. S., & Gmelch, W.H. (1995). Stress factors and occupational roles of department chairs. *Journal of Technological Studies*, *21*(1), 12-23.
- Carroll, J. B., & Gmelch, W. H. (1992, October). *The relationship of department chair roles to importance of chair duties*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Minneapolis, MN.
- Chu, D. (2006). The department chair primer: Leading and managing academic departments. Bolton, Mass: Anker Pub. Co.
- Cochran, S. W. (1983). The Delphi method: Formulating and refining group

- judgments. Journal of the Human Sciences, 2, 111-117.
- Creswell, J. W., Wheeler, D. W., Seagren, A. T., Egly, N. J., & Beyer, K. D.

 (1990). *The academic chairperson's handbook*. Lincoln, NE: University of Nebraska Press.
- Cyphert, F. R., & Gant, W. L. (1971). The Delphi Technique: A Case Study. *The Phi Delta Kappan*, 52(5), 272-273.
- Dailey, A. L., & Holmberg, J. C. (1990). Delphi: A catalytic strategy for motivating curriculum revision by faculty. *Community/ Junior College Review 14*, 129-136.
- Ehrle, E. B. (1975). Selection and evaluation of department chairmen. *Educational Record*, *56*(1), 29-38.
- French, J. P., Caplan, R. D. (1973). Organizational stress and individual strain. In A. J. Marrow (Ed.), *The failure of success*. New York, NY: Amacom.
- Fried, Y., Tiegs, R. B. (1995). Supervisors' role conflict and role ambiguity differential relations with performance ratings of subordinates and the moderating effect of screening ability. *Journal of Applied Psychology*, 80(2), 282-291.
- Gillett-Karam, R. (1999). Midlevel management in the community college: A rose garden. *New Directions for Community Colleges*, 105, 5-11.
- Gmelch, W. H. (1982). *Beyond stress to effective management*. New York, NY: John Wiley & Sons.
- Gmelch, W. H. (1991, April). Paying the price for academic leadership:

 Department chair tradeoffs. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

- Gmelch, W. H., & Burns, J. S. (1993). The cost of academic leadership:

 Department chair stress. *Innovative Higher Education*, 17(4), 259-270.
- Gmelch, W. H., & Burns, J. S. (1994). Sources of stress for academic department chairs. *Journal of Educational Administration*, 32(1), 79-94.
- Gmelch, W. H. (2004). The department chair's balancing acts. *New Directions for Higher Education*, 69-84.
- Gmelch, W. H., Miskin, V. D. (2010). Managing time: For department chairs only. *Department chair leadership skills*. Madison, WI: Atwood Publishing.
- Higgerson, M. L. (1996). *Communication skills for department chairs*. Bolton, MA: Anker Publishing, Inc.
- Kahn, R. L., Wolfe, D. M., Quinn, R. O., & Snoek, J. D. (1964). *Organizational stress studies in role conflict and ambiguity*. New York, NY: John Wiley & Sons.
- Kahn, R. L. (1970). Some propositions toward a researchable conceptualization of stress. In J. E. McGrath (Ed.), *social and psychological factors in stress*.New York, NY: Holt, Reinhart, & Winston.
- Kremer-Hayon, L., & Avi-Itzhak, T. E. (1986). Roles of academic department chairpersons at the university level: Perceptions and satisfaction. *Higher Education*, *15*, 105-112.
- Lee, D. E. (1985). Department chairpersons' perception of the role in three institutions. *Perceptual and Motor Skills*, *61*, 23-49.
- Mathias, H. (1991). The role of the university head of department. *Journal of Further and Higher Education*, 15(3), 65-75.

- McGrath, J. E. (1976). Stress and behavior in organizations. In M. D. Dunnette (Ed.), *Handbook of industrial and organization psychology*. Chicago, IL: Rand McNally.
- McLaughlin, G. W., Montgomery, J. R., & Malpass, L. F. (1975). Selected characteristics, roles, goals, and satisfactions of department chairmen in state and land-grant institutions. *Research in Higher Education*, *3*, 327-341
- Meredith, G. M., & Wunsch, M. A. (1991). The leadership of department chairpersons: Time/ resource management, rewards, frustrations, and role satisfaction. *Psychological Reports*, 68, 451-454.
- Mobley, T. A. (1971). Selection and evaluation of department chairmen. *Educational Record*, *54*(4), 321-327.
- Murray, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *Review of Higher Education*, 18, 423-436.
- Rasch, C., Hutchison, J., & Tollefson, N. (1986). Sources of stress among administrators at research universities. *The Review of Higher Education*, *9*(4), 419-434.
- Rizz, J. R., House, J. R., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, *15*(2), 150-163.
- Sarros, J. C., Gmelch, W. H., & Tanewski, G. A. (1997). The role of department head in Australian universities: Changes and chanllenges. *Higher Education Research and Development*, 16(1), 9-24.
- Schaubroeck, J., Cotton, J. L., Jennings, K. R. (1989). Antecedents and consequences of role stress: A covariance structure analysis. *Journal of*

- Organizational Behavior, 10, 35-58.
- Singleton, B. (1987). Sources and consequences of role conflict and role ambiguity among department chairs. *Capstone Journal of Education*, 7(2), 39-50.
- Staton-Spicer, A. Q., & Spicer, C. H. (1987). Socialization of the academic chairperson: A typology of communication dimensions. *Educational Administration Quarterly*, 23(1), 41-64.
- Tucker, A. (1993). *Chairing the academic department: Leadership among peers*.

 Phoenix, AZ: American Council on Education/ Oryx Press.
- Uhl, N. P. (1983). Using the Delphi technique in institutional planning. *New Directions for Institutional*
- Research, 37, 81-94.
- Whitman, N. I. (1990). The Delphi technique as alternative for committee meetings. *Journal of Nursing Education*, *29*, 377-379.
- Whitson, L. J., & Hubert, F.W. R. (1982). Interest groups and the department chairperson. *Journal of Higher Education*, *53*(2), 163-176.
- Wolff, H. G. (1953). Stress and disease. Springfield, IL: Thomas.