WHAT MAKES A GOOD OR BAD WORKSITE? : PERSPECTIVES OF NEW PHARMACY GRADUATES

by

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ABSTRACT

Objectives: 1) To use content analysis to identify and describe themes embedded in new pharmacy graduates' descriptions of positive and negative pharmacy practice experiences 2) To analyze the relationship between the themes used to describe these experiences with the pharmacy worksite setting and with the graduates' work-related preferences.

Methods: A secondary analysis was carried out on data that were collected by a nation-wide survey of new pharmacy graduates in 1999. The pharmacy graduates had been identified through stratified sampling using the four major U.S. Census Bureau regions as strata and sampling pharmacy schools or colleges proportionate to number of graduates in the four regions. Out of the 30 schools or colleges contacted, 24 agreed to participate. A total of 1,850 deliverable surveys were sent and 259 were returned, yielding a 14% response rate.

Content analysis was used to identify and describe themes embedded in the graduates' descriptions of 'good' and 'not-so-good' pharmacy worksites. The relationship of the themes used with the pharmacy work setting was analyzed using Chi-Square Tests and Fisher's Exact Tests and the relationship of the themes with the graduates' work-related preferences was analyzed using independent sample T-Tests.

Results: Nine theme categories dealing with factors internal and external to the pharmacy were ascertained. Much of the respondents' focus was on the nature of work they had performed at the sites which was the most common theme mentioned 134 times in total. Responses about relations with those outside the pharmacy (patients, other providers) were mostly positive (63.2 % of the mentions were positive) and responses about internal aspects of the practice site (management, coworkers, pharmacy environment) were mostly negative

(61.7 % of the mentions were negative). Having a sense of contribution and achievement at the site resulted in positive evaluations (86.4 % of the mentions were positive).

Pharmacy practice setting made a difference. Positive interaction with coworkers ($p < 0.05$) and patients ($p < 0.01$) occurred more often in retail than in hospital pharmacies. Positive responses mentioning the nature of work performed ($p < 0.01$), the sense of contribution felt ($p < 0.05$), and the interaction with other health providers ($p < 0.01$) occurred more often in hospital than in retail pharmacies. Overall, the respondents' work related preferences did not predict their responses.

Conclusion: The thesis illustrates the value of using qualitative techniques to study new pharmacy graduates' perceptions of 'good' and 'not-so-good' practice sites. It is important to study the graduates' experiences at these sites because they represent a critical time in the development of the professional pharmacist and could affect perceptions about the norms of pharmacy practice and future practice setting preferences.

Patients and other providers generally proved to be assets for the pharmacy, giving new pharmacists the respect, recognition and appreciation they remembered and cherished. However, further education of both physicians and patients about the role of the pharmacist could lead to a greater utilization of pharmacists in patient care and greater job satisfaction for the pharmacist.

Many frustrations appeared to originate from within the practice site itself. A busy pharmacy environment and working continuously with the same people may have contributed to this. Creation of an environment supportive of the new pharmacist by the management and co-workers will aid the transition of the new pharmacist from student to practitioner. Further, it is beneficial for pharmacy schools to continue to teach students

effective ways to deal with patients. However, devoting more time to teach students to deal with management and coworkers may also be warranted.

Overall, the new pharmacy graduates were concerned with appearing professional and wanted to utilize their pharmacy knowledge to help patients. However, these expectations were not always met at their worksites and evidence was obtained about the existence of 'inconsistent socialization' in pharmacy practice. Hence, schools should work with all pharmacies, especially clerkship and internship sites, to ensure that the graduates get consistent messages from both the worksite and the school. Similarly, employing pharmacies should provide the resources and facilities needed to make pharmacy worksites consistent with professional norms so that pharmacy graduates are able to fulfill their professional obligations, both to their patients and to themselves.

CHAPTER 1

INTRODUCTION

Background

Recent years have seen a movement towards an expanded role for the pharmacist through pharmaceutical care. Schools of pharmacy have tried to instill this expanded role in their students and to transform the students into "professionally mature pharmacy practitioners who can render pharmaceutical care" [1:2]. Students are taught not only to dispense medications but also to educate, monitor and care for patients. They are encouraged to work actively with the patient and his/her health care provider to improve patient outcomes. They are taught about the values, responsibilities and behaviors of a professional pharmacist. It is hoped that during their years in pharmacy school, students will internalize these values and be transformed from students into professionals. This process, whereby students learn about the professional role of pharmacists and the expectations of performance in that role, is known as 'professional socialization' [2].

Other factors, besides pharmacy schools and faculty, can affect student socialization. Professional socialization can be influenced by students' values and preferences and by their peers [3]. Professional socialization can also be influenced by the pharmacy practice sites where the students work [3]. The current thesis focuses on these pharmacy practice sites to learn about new pharmacy graduates' experiences there.

Pharmacy Practice Sites- Important Agents for Professional Socialization

Before licensure as pharmacists, pharmacy students work in a variety of sites, either for pay or for academic credit. This practice component is one of the main vehicles to producing a modern day pharmacist [1]. On average, a typical pharmacy graduate has worked in 7.3 different pharmacy practice sites; out of these, 4.9 sites were for academic credit and 2.4 sites were for pay [4]. Experiences at these sites are important because they occur at a critical time in the development of the pharmacy graduate. Often, these are the first opportunities for students to work in a real-life pharmacy setting [5]. It is at these sites that students observe and learn the professional norms of practice [6]. Also, a study by Curtiss and Shepard on the career choices of New England pharmacy students found that internship and externship experience influence practice settings preferences of pharmacy students [7].

Thus, pharmacy practice site experiences are important because they affect student perceptions of the norms of pharmacy practice and also affect practice preferences. To produce a professional practitioner, it has been suggested that a balance of positive influences in both practical and educational environments is required [6]. Unfortunately, this does not always happen. Schools and colleges of pharmacy equip students for advanced patient care. However, when pharmacy graduates attempt to apply skills or knowledge acquired in the classroom to a real-life practice situation, they may be discouraged by pharmacists who characterize their behavior as unnecessary or impractical in the real world [6]. New graduates are often inadequately prepared for the realities of the high prescription volume in pharmacies and the challenges of managing prescription benefit programs in community practice [8]. They feel frustrated and

burdened with unproductive and time-consuming clerical tasks, tasks that do not make use of their education, skills, and knowledge, and waste valuable time that could be better spent on providing clinical expertise to patients [8]. Thus, the expectations new graduates have about their role and function in pharmacies may not be consistent with other's expectations of their role [2]. These differing expectations may lead to role conflict, role ambiguity and dissatisfaction [3, 9]. Hence, there is a need to study pharmacy graduates' expectations and experiences at their practice site to learn more about their socialization at these sites.

Study Objectives

There is a lack of qualitative studies examining pharmacy graduate descriptions of their experiences at internship and clerkship sites. There is a need to understand what new graduates notice in these sites, whether they encounter 'good' or 'bad' sites and what constitutes a 'good' or a 'bad' site. Schools of pharmacy as well as pharmacy employers can learn from these experiences to make academic and practice experiences more consistent with each other. It is hoped this will reduce the conflict and role ambiguity pharmacy graduates might feel and facilitate their transition into the role of pharmacy practitioners.

The study explores the use of critical incident technique to learn about pharmacy graduate experiences at different work sites. This technique has been used before to study pharmacy student professionalism [10]. In the current study, new pharmacy graduates will be asked to describe a good or bad experience at a pharmacy site. This thesis, then, examines graduates' responses using the perspective of professionalism. This means sites

which contain factors that are consistent with and that reinforce the graduate's expectations of professional pharmacist behavior will be described as 'good' sites and experiences at these sites will be positive. Sites in which the graduate is not treated as a professional and which contain factors inconsistent with the graduate's expectations of professional pharmacist behavior will be perceived as 'not-so-good' sites. Further, content analysis techniques will be used to analyze the themes or factors that graduates use to describe their 'good' or 'bad' pharmacy site experiences. This will help us learn more about factors that influence the professional pharmacist's worksite evaluations.

A second objective of the thesis is to examine if the themes that pharmacy graduates experience in the site are related to their work-related preferences and to site characteristics. Do new graduates use certain themes in their evaluations of worksites because they feel strongly about and have high preference for certain aspects of pharmacy work? Or are the themes used a function of the setting of worksite (for example, whether the pharmacy is in a community or hospital setting)? Another possibility is that perhaps both graduate preferences and the type of setting could influence the themes found in their pharmacy descriptions.

The thesis concentrates on two main categories of pharmacy work settings, the community/retail setting and the hospital/clinic setting. It also seeks to learn about new graduates' preferences for three aspects of pharmacist professional work – preferences for interaction with patients, preferences for work demand and preferences for control/autonomy. All three aspects are important to the professional pharmacist. As pharmacy moves towards incorporating pharmaceutical care in practice, professional pharmacists are encouraged to be actively involved with patient care and

increased/improved patient interaction is important for this to take place. Also, pharmacists must be able to multi-task and work effectively and efficiently in order to deal favorably with everyday pharmacy work situations. Finally, autonomy and control in the workplace are important conditions for an individual to be able to work as a professional [11]. However, pharmacy graduates may have differing preferences for these three aspects. The thesis hopes to learn about the range of preferences for these constructs of professional pharmacy work. It also hopes to examine the relationship between the differing preferences and the themes used to describe positive and negative workplace experiences.

Thus, the objectives of this thesis are:

1) To identify and describe themes embedded in new pharmacy graduates' descriptions of positive and negative experiences that they have had in pharmacy practice,

2) To measure new graduates' preferences for three aspects of pharmacy work- the quality of patient interaction expected, intensity of work demands and the amount of control desired in the pharmacy workplace, and

3) To analyze the relationship between the themes used to describe positive and negative workplace experiences and the pharmacy worksite setting and the graduates' work-related preferences.

Format of Thesis

Chapter 2 will review the literature pertinent to this thesis. Chapter 3 will describe the methods that will be used for data analysis. Chapter 4 will present the results of this

thesis. Finally, a discussion of the limitations and implications of the study and avenues for further research in this area will be presented in Chapter 5.

CHAPTER 2

LITERATURE REVIEW

This chapter will first examine professionalism, professional socialization, inconsistent socialization and the forces of socialization in pharmacy. Then, it will discuss factors which affect work experiences within a pharmacy and the advantage of using critical incident technique to assess these experiences. Finally, it will talk about possible effects of work setting and work-related preferences on pharmacy work experiences.

Professionalism and Professional Socialization in Pharmacy

Before licensure as pharmacists, students of pharmacy learn not only about various drugs, their functions and formulations but also about how to act professionally as pharmacists. This professionalism has been defined as "the active demonstration of the traits of a professional" [6:97] and as "displaying values, beliefs and attitudes that put the needs of another above your personal needs" [1:6].

The need for increased professionalism is linked to the movement in pharmacy towards pharmaceutical care. As stated by Hammer, "the guiding philosophy for this increased emphasis (on student professionalism) is that the provision of pharmaceutical care is, in and of itself, a more professional practice than is the filling and dispensing of prescriptions. For this reason, pharmacists should become 'more professional' in order to successfully provide pharmaceutical care" [12:16].

Students learn about what it means to be professional from courses, experiences, and faculty in their schools of pharmacy. They also learn about how professional pharmacists behave by observing and working along with practitioners in pharmacies as technicians, interns or clerkship students. This process by which an individual learns the norms, attitudes and values of a professional is known as 'professional socialization'. According to Hammer and colleagues, "professional socialization involves *transformation* . . .the transformation of individuals from students to professionals who understand the values, attitudes, and behaviors of the profession deep in their soul"[1:12]. Thus, the end result of professional socialization is "an internalized set of attitudes and values regarding one's role" [13:2461]. These attitudes and values help "determine the pharmacist's conceptualization of the 'good' pharmacist and influence day-to-day decisions about what is or is not appropriate to do and the relative priority of tasks" [13:2461].

Inconsistent Socialization

Professional socialization occurs both within education and practice. Therefore, pharmacy schools and practitioners play an important role in the professional development of pharmacy students [6]. A balance of positive influences in both environments is required to produce a professional practitioner [6]. However, there are many instances when such balance is not present [6]. A disconnect between didactic instruction and the student's work environment may lead to 'inconsistent socialization' [1].

Manasse and colleagues defined inconsistent socialization as "the process by which the individual develops or acquires incompatible or conflicting behaviors, beliefs and values from formal or informal sources due to the absence of uniformity or agreement within the idealized group model into which he is being socialized" [3:616]. The term characterizes the clash that often exists between the forces of socialization, resulting in differences between students' and recent graduates' expectations about their role in health care and other individuals' expectations of their role [6]. For example, schools and colleges of pharmacy may equip graduates for roles that utilize their advanced clinical skills. However, in the work setting, graduates may not have a chance to utilize those skills and may spend most of their time on clerical and technical activities. Also, pharmacists may discourage new graduates' attempts to apply their skills in the pharmacy by characterizing the behavior as unnecessary or impractical in the real world [6]. Thus, the pharmacy graduates' expectations about the roles that they will play in the pharmacy work setting are not met. These differing expectations are important because they often lead to negative attitudinal outcomes like role conflict and role ambiguity [9], dissatisfaction with practice [3] and disillusionment [14]. Hence, it is important to study this phenomenon of inconsistent socialization and differing expectations because they may lead to negative evaluation of the pharmacy worksite by the new graduate.

Forces of Socialization

According to Manasse and colleagues, the forces of professional socialization are the students' personal value systems, their peers, and society [3]. The ideology of the college of pharmacy and its staff, and the location of the college also affect socialization

[3]. Finally, the practice setting(s) in which the student completes his/her practical experience are also important [3].

The current study focuses on the practice setting experiences of new pharmacy graduates. The practice site is important in the study of inconsistent socialization in pharmacy because it is at this setting where graduates experience the 'day-to-day' realities of the profession of pharmacy. Practicing the 'art of pharmacy' under the supervision of a competent pharmacist is one of the main vehicles to producing a modern day pharmacist [1:13]. Pharmacy graduates before licensure generally have practiced in a variety of settings either for pay (as technicians or interns) or for credit (as clerkship students). As Manasse and colleagues suggest in their 1975 article, the pharmacy is the 'real world' for the pharmacy student and also becomes the "primary focus for incompatibility of prior socialization goals and the locus of inconsistencies with which the student will soon be confronted"[3:618]. Thus, the practice setting has an important role in the study of inconsistent socialization of pharmacy students. Hence, it is interesting to study new graduates' worksite experiences to better understand how they perceive sites that are consistent with the norms of professional pharmacy practice they learnt in school, and sites that are inconsistent with these norms.

Factors that Affect Work Experiences Within the Pharmacy

The pharmacy practice setting contains various elements which could influence how a professional pharmacist functions. These factors also influence whether or not the new graduate is allowed to practice in a manner consistent with professional norms. Since these factors influence the type of work the pharmacist carries out at the pharmacy

worksite, they could also influence satisfaction with and evaluation of the pharmacy worksite. These factors include the pharmacy practitioner and other coworkers at the site, the type or nature of the work that the pharmacist performs, the pharmacy environment, the pharmacy management (which decides the focus of the pharmacy and the pharmacists' role in the organization), the patients and other health care providers with whom the pharmacist interacts.

Pharmacy Practitioners

Pharmacy students, during clerkships or internships, usually work under a pharmacy practitioner who guides them as a preceptor and mentor. The pharmacy practitioner is a model for new pharmacy graduates to observe how pharmacists behave in the real world. The practitioner's role in the professional socialization of pharmacy students has been described as "enormous and substantial" because they are "often perceived as the ones who are doing or have achieved that which students strive to become" [1:13]. Because of this, pharmacy students consider practitioners credible. Preceptor behavior is especially important because students often model preceptor behavior once they enter the experiential learning components of their educational program, as well as in their internships [1]. Thus, new pharmacy graduates who interact with professional and inspirational practitioners may rate their pharmacy worksite experience as positive and fulfilling. On the other hand, new graduates who interact with pharmacy practitioners who do not fulfill their professional obligations may be surprised, disappointed or upset with their worksite experience. Given the important role played by these practitioners, a negative perception of the main pharmacist at the site could

influence graduate opinions about the professionalism and quality of care available at the pharmacy site, in general.

Coworkers

For a pharmacy practice site to function smoothly, all personnel, from the main pharmacist down to the staff pharmacists and technicians, should act in sync and share the same values. Doucette and Koch found that for positive change to take place in pharmacy practice, there should be a consensus among all employees [15]. Peer support within a pharmacy and frank discussion of problems also facilitate change [15]. The authors state "the greater the extent to which the pharmacists in a pharmacy share a common vision of practice, the more likely that vision is to be achieved" [15:389]. Thus, for a worksite experience to be positive, all pharmacy employees should act professionally and in consensus. Sites where coworkers do not get along and/or do not share a common vision of practice can make for unpleasant work experiences. Positive relations with coworkers are important to pharmacy students' job satisfaction. Purohit and Lambert found that pharmacy students rated 'relations with coworkers' among the top five factors mentioned most frequently as important to greater job satisfaction [16]. Thus, coworkers at the site could be important influences on new pharmacy graduates' evaluation of their experience in a pharmacy site.

Nature of Work

As pharmacy moves towards providing pharmaceutical care, the role of the pharmacist and the nature of work that a pharmacist performs have changed. In addition

to counseling patients on the proper use of medications, the role of today's pharmacist includes drug monitoring and disease management for defined conditions; participating in multidisciplinary clinical care teams; consulting on drug utilization programs; supporting health services research on outcomes of care; providing drug information; patient education; formulary management; and furthering public health initiatives such as smoking cessation programs, diabetes education and immunizations [17]. Pharmacists involved in institutional care are commonly called upon to perform a variety of clinical functions and to participate in organizational efforts to monitor and evaluate the drug use process [17]. In referral medical centers, it is routine for pharmacists to be members of clinical teams [17]. In fact, today's hospital pharmacists devote less than half their time to dispensing medications and the rest to other clinical and management activities [17]. Thus, there are many opportunities for pharmacists to perform activities in addition to their traditional dispensing responsibilities.

Many pharmacists enjoy performing tasks related to these expanded roles. A 2002 study by Schommer and colleagues found that pharmacists would prefer to devote more of their time to professional responsibilities, such as consultation and drug use management, and less time to medication dispensing and business management [18]. Purohit and Lambert found that pharmacy students rated 'being able to use their training' and 'learning opportunities at the site' among the top five factors mentioned most frequently as important to greater job satisfaction [16].

Despite this desire to perform expanded roles, many community pharmacists are still devoting the majority of their time to medication dispensing responsibilities [18]. As of 2000, the typical community pharmacist in the United States reported devoting 56% of

his or her time to medication dispensing responsibilities, 19% to consultation responsibilities, 16% to business management responsibilities, and 9% to drug use management responsibilities [18]. These results were consistent for pharmacists regardless of the type of community pharmacy or prescription volume [18]. Also, the growth in third-party insurance coverage for prescription medications has caused the pharmacist to spend more time dealing with insurance issues than earlier [17]. A survey of community pharmacies in 1996 reported that 58 minutes of the average community pharmacists' day was devoted to "dealing with third party plans, their administrators and formulary requirements". This represented about 10 percent of the average workday which was reported as 9.6 hours [17].

There is some evidence that work-related preferences are not being met even during internship periods. In a 1989 survey of newly licensed pharmacists in Ohio, Carter and Segal found that the respondents spent a majority (81.8%) of their internship time performing distributive activities and 7.5% of their time involved in clinical activities while they would have preferred to spend 52.5% of their time on distributive activities and 31.6% of their time on clinical activities [19].

Thus, the nature of work the pharmacy graduate performs at the site can serve as a positive or negative factor influencing the evaluation of the site. Many pharmacists would prefer to spend more time counseling patients and in clinical activities rather than doing technical and distributive tasks.

Environment

Related to the nature of work performed at the site is the pharmacy environment. The number of retail prescriptions dispensed in the United States increased 44% between 1992 and 1999 and the estimated annual number of prescriptions filled per pharmacist in retail pharmacies grew 32% from the year 1992 to the year 1999 [17]. Unfortunately, this increase in prescription volume has corresponded with a period of shortage of pharmacists [17]. Both these factors may have negative consequences for the profession and the public. Since pharmacists spend more time filling prescriptions, this has reduced time for the pharmacist to provide patient counseling- an important function in light of the expanded use and complexity of medications [17]. Also, the busy pharmacy environment has lead to longer working hours and lesser job flexibility in scheduling, which in turn leads to negative outcomes such as fatigue, increased potential for medication errors, job stress, inadequate working conditions and reduced professional satisfaction [17].

Working conditions are important factors in evaluation of a site. Purohit and Lambert found that pharmacy practitioners rated 'working conditions at the site' among the top three factors mentioned most frequently as important to greater job satisfaction [16]. Similarly, Carvajal and Hardigan found that 'work overload at the job' ranked first among the anticipated sources of job dissatisfaction for pharmacy students [20].

Thus, the temporal and spatial aspects of work included in the pharmacy environment are important for the pharmacist to function professionally. An unfavorable pharmacy environment can be detrimental to the evaluation of a worksite while a favorable environment can lead to a positive evaluation of the pharmacy.

Management

The pharmacy management is important because it allocates resources, decides the focus of the pharmacy worksite and establishes the role of the pharmacist in the organization.

Doucette and Koch found many factors, which supported positive pharmacy practice change, were associated with improving resources [15]. They state, "speaking broadly, the resources present in a pharmacy determine the level of patient care a practitioner is positioned to provide" [15:384]. Thus, a pharmacy management that does not provide adequate resources makes it difficult for the pharmacist to properly care for the patients.

Similarly, a pharmacy management that focuses only on the convenience factor for consumers and providing the product (commodity) quickly could do so at the expense of quality and value-added education, counseling and other professional services that pharmacy professionals offer [1]. The management in some pharmacies place greater value on revenue and not on the delivery of professional service [1]. Due to the fiercely competitive nature of the pharmacy business, "the immediate dollar in hand is (sometimes) used as the measure of success instead of the increased respect and enhanced relationship that occurs when pharmacists make a connection with their patients that fosters more stable and long-lasting financial impacts" [1:22]. Also, estimating the 'professional worth' of pharmacists by the number of prescriptions they have filled versus the number of patients for whom they have cared could be detrimental to the profession [1]. New graduates may be dissatisfied with a pharmacy management that focuses not on the patient and positive health outcomes, but on the customer and the

positive revenue stream for the pharmacy's bottom line. This may lead to negative perceptions of a site run in such a manner.

Patients

While pharmacists may seek to have an expanded role in patient care, many patients do not have high expectations for pharmacists. Patients expect to have their prescriptions filled correctly and quickly but they may not expect to be educated by their pharmacist, nor care if the pharmacist wears a white coat and dresses professionally [1]. Some patients may not even want their pharmacists to provide services other than filling prescriptions quickly and accurately [1]. Even if pharmacists try to counsel these patients, many patients are in a hurry and do not want to stay and listen [1]. Some patients are rude and difficult with pharmacists [1]. This can be discouraging to pharmacists and might influence the quality of care provided. The more often pharmacists are treated this way the more difficult it is to try to maintain respect and professional behaviors towards patients [1]. Thus, negative experiences with patients may affect the pharmacists' behavior towards them.

On the other hand, patients who appreciate and are thankful to the pharmacist may lead to greater pharmacist job satisfaction. In fact, Carvajal and Hardigan found that the 'ability to help patients' ranked second among the anticipated sources of job satisfaction for pharmacy students [20]. Thus, pharmacy graduates would like to be given the opportunity to help patients and be appreciated by them. Hence, appreciation and respect from patients can be a positive factor in the evaluation of a pharmacy worksite.

Other Health Providers

Pharmacists have moved towards an expanded role for themselves in patient care. However, other health professionals such as nurses and physicians may not know about or may not agree with this expanded role for pharmacist.

A 1969 study by Stephenson found that there was a gap between the role the pharmacist expected to play as a clinical pharmacist and the expectations of him by the other health professions [21]. Physicians saw the pharmacist as an advisor and resource person to the pharmacy and therapeutics committee, as a passive individual in the health care field and as a follower of rules [21]. They were not aware of new pharmacy functions and activities [21]. The pharmacist, on the other hand, saw himself as a decision maker and a controlling force on the pharmacy and therapeutics committee [21]. Similarly, in a 1968 article on incomplete professionalization in pharmacy, Denzin and Mettlin state, "in hospitals in the eyes of most nurses and physicians the pharmacist is the person 'who gets the drug up here when I want it'" [22:381]. The nurses, medical residents, interns and students were not sure about the position of the pharmacist in the hospital hierarchy [22]. Therefore, the lack of knowledge, support and respect for the pharmacists' role could lead new pharmacy graduates to be discouraged when they are not allowed to participate in expanded roles. This could lead to dissatisfaction with work at the site.

The papers referenced above are more than 30 years old and the professional pharmacy movement has evolved greatly since then. While this lack of knowledge about the pharmacist's role may still be true in some hospitals today, it is hoped that most physicians and nurses are better educated about the role of the pharmacist compared to 30

years ago. In fact, in many hospitals today, the pharmacists participate in organizational efforts to monitor and evaluate the drug use process and are commonly called upon to perform a variety of clinical functions [17]. In referral medical centers, it is routine for pharmacists to be members of clinical teams [17]. This expanded role may be valued by new pharmacy graduates who could see it as a positive factor in evaluation of a worksite.

Sense of Accomplishment

Besides the above factors, the 'feeling of accomplishment or contribution' on the job could also affect satisfaction with work. This can be explained by Herzberg's Two Factor Theory [23]. According to Herzberg's Two Factor Theory of job satisfaction, certain work characteristics such as work conditions and salary serve as 'hygiene' factors [23]. If these characteristics were not present, it would lead to dissatisfaction with the work setting [23]. But the presence of these factors does not automatically make the job satisfying, challenging and motivating. For this to take place, certain other factors must be present. These factors collectively called 'motivators' and include 'having a sense of accomplishment, recognition, responsibility and contribution at work' [23]. Presence of this factor makes the job satisfying and would lead to a positive evaluation of the worksite.

There is much evidence that 'making a difference' is important to pharmacy students and practitioners. Carter and Segal studied factors that influenced the choice of initial practice setting among pharmacists who had completed the majority of their experiential training in a hospital setting [19]. They found the factor 'is personally rewarding' was mentioned most often by both hospital and community pharmacists as the

factor that was most important when choosing their first position [19]. Similarly, Purohit and Lambert found that both pharmacy students and pharmacy practitioners rated having 'sense of accomplishment at work' among the top two factors mentioned most frequently as important for greater job satisfaction [16]. Finally, Besier and Jang determined the first choice practice intentions of Midwestern pharmacy students and described and quantified the factors affecting their decision [24]. They found that 'personal fulfillment' ranked among the top three factors affecting the choice of a practice area for all pharmacy students [24]. Students who preferred hospital practice indicated that 'personal fulfillment' was most important to them in their choice of practice area [24].

Thus, having a sense of accomplishment/fulfillment/contribution at work may be important to new pharmacy graduates. Sites that offer this to the graduates are therefore likely to looked upon favorably.

Critical Incident Technique and Content Analysis

Quantitative studies have studied pharmacy students' or new practitioners' job selection and/or satisfaction [16, 19, 24]. These quantitative approaches can serve as a guide for anticipating the types of themes pharmacy graduates might use to describe positive or negative experiences at work. However, a disadvantage of a purely quantitative approach is that it may overlook or downplay the importance of specific situations experienced by young pharmacists, experiences that can prompt these individuals to see a particular practice site as positive or negative. Quantitative approaches use others' words, rather than the new pharmacist's own words, to learn about factors that have influenced worksite evaluation and subsequent decision-making.

In contrast to standard quantitative approaches, a deeper understanding can be obtained by applying qualitative research methods such as the critical incident technique developed by Flanagan [25]. A critical incident is any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act [25]. The purpose of a 'critical incident study' is to capture problematic situations experienced, for example, in relation to performing professional tasks [26]. In a critical incident study, subjects are asked to describe defined incidents, the consequences of those and what they did to cope with them [26]. The critical incident technique thus "describes, analyzes and interprets an individual's understanding of phenomena in their surroundings" [26:460].

This thesis uses a modified form of the critical incident technique. It asks new pharmacy graduates to describe their experience at a 'good' or 'not-so-good' pharmacy site using a questionnaire format. Its overall goal is to analyze how new pharmacy graduates describe positive and negative aspects of pharmacy practice sites in which they have worked. An advantage of using this technique is that information on 'top of mind' (and probably, most important or most distinct) experiences and behaviors can be obtained, which will assist in better understanding what might constitute a 'good' or 'bad' pharmacy worksite.

The thesis will use content analysis to analyze and classify the responses about the graduates' pharmacy experiences. Content analysis may be briefly defined as the systematic, objective, quantitative analysis of message characteristics [27]. This method of asking respondents to describe critical incidents and using content analysis to elucidate factors and themes associated with the responses has been used before by Bouldin and

Bentley while investigating the concept of pharmacy student professionalism using pharmacy faculty and student experiences of non-professional behavior [10].

Thus, the first objective of this thesis is to use the above techniques to ask pharmacy graduates to describe their experiences at 'good' or 'bad' pharmacy sites and learn about the factors/themes that affect their perceptions of why a site was a 'good' or 'bad' place to work.

Research Question 1

What are the themes embedded in new pharmacy graduates' descriptions of positive and negative experiences that they have had in pharmacy practice?

Effect of Work Setting And Work-Related Preferences on Pharmacy Work Experiences

A second objective of the thesis is to study how the themes experienced in the site are related to new graduates' preferences and to site characteristics. The themes, which will be further analyzed in this manner, include the nature of work performed at the site, the sense of contribution felt, and interaction with patients, coworkers and other health professionals. These themes encompass both hygiene factors (extrinsic determinants of job satisfaction which focus on other people or external considerations) and motivators (intrinsic determinants of job satisfaction which pertain to the nature and activities of a position) [23].

Work Setting

On average, a typical pharmacy graduate has worked in 7.3 different pharmacy practice sites; out of these, 4.9 sites were for academic credit and 2.4 sites were for pay [4]. Clerkship and internship sites are primarily in hospital and community/retail pharmacies. After graduation, a majority of pharmacists work in community pharmacy and a sizeable minority work in hospitals. The majority (about 63%) of all licensed pharmacists are employed in the community/retail pharmacy sector and about 24% are employed in institutional settings, such as hospitals [17]. Only 2.4% of the pharmacists are employed in home health care while 3.8% work in long-term care [17]. A smaller number of pharmacists work in other sectors such as in the pharmaceutical industry, managed care and health insurance plans, consulting groups and universities [17]. Thus, the two main work settings for pharmacists are hospitals and community/retail pharmacies.

As described earlier, the type of work performed by a pharmacist in the hospital is different from that in the community/retail pharmacy. In general, a community pharmacist might spend more time dispensing and dealing with patients than a hospital pharmacist. A hospital pharmacist might spend more time interacting with physicians and deciding therapy than a community pharmacist. Hence, the work experiences and work content might differ depending on setting.

There is some evidence from previous studies that pharmacy students view pharmacy work differently depending on the setting. Most of the students perceived hospital practice as a challenging environment in which pharmacists use their professional knowledge, develop professionally, and interact with other health-care

professionals [28]. Hospital pharmacists also were significantly more likely than community pharmacists to report that the hospital in which they served their internship program did not have very high stress levels and daily pressures [19]. Community pharmacists were significantly more likely than hospital pharmacists to report that community pharmacy practice would be personally rewarding, interesting, and challenging; allow for professional development; and provide a feeling of high regard by superiors [19]. However, there are no studies that ask new pharmacy graduates to describe their work experiences and to analyze their responses to see how descriptions of 'good' or 'bad' worksites would vary by pharmacy setting. Hence, one of the questions the thesis hopes to answer is how the themes used to describe work vary by pharmacy setting.

Research Question 2

How do descriptions of the nature of work performed at the site, the sense of contribution felt, and interaction with patients, coworkers and other health professionals vary by pharmacy work setting?

Work-related Preferences

Workers experience job satisfaction or dissatisfaction when they achieve, or fail to achieve, whatever objectives they deem important in their work [29]. The thesis will focus specifically on three work-related preferences which might be important to the professional pharmacist. It will analyze pharmacy graduates' work experiences to see how they varied with the graduates' work-related preferences. The preferences to be

studied are quality of patient relationships, intensity of work demands, and desired control in the workplace.

As pharmacy moves towards incorporating pharmaceutical care in practice, professional pharmacists are encouraged to be actively involved with patient care and increased/improved patient interaction is important for this to take place. The mission of pharmacy practice is to improve a patient's quality of life and to provide care to patients [2]. Due to this focus on the patient and on pharmaceutical care in pharmacy schools, pharmacy graduates might have certain preferences about the quality of patient relationships at their practice site. Their perceptions of 'good' or 'bad' sites might, therefore, be influenced by the amount of patient interaction they desire.

A pharmacist must be able to multi-task and work effectively and efficiently in order to deal favorably with everyday pharmacy work situations. However, new graduates might vary in the intensity of work demands they would like to deal with in practice. Too many work demands may lead to stress for many graduates, which is undesirable. Stress is one of the most important reasons mentioned by pharmacists for leaving their jobs [30]. Hence, it is important to consider how pharmacy graduates' preferences for intensity of work demands would affect their perceptions of a 'good' or 'bad' site and the themes they use to describe such sites.

Similarly, autonomy and control in the workplace are important conditions for an individual to be able to work as a professional [11]. Hence, a professional pharmacist might want a certain amount of control in how work is carried out in the pharmacy. Purohit and Lambert found that as student age increased, importance of 'responsibility at work' increased for higher job satisfaction [16]. They suggest that the desire for

additional responsibility may stem from a desire for higher control [16]. Therefore pharmacy graduates' perceptions of 'good' or 'bad' sites and the themes they use to describe such sites might be influenced by the amount of control they desire in how work is carried out in the pharmacy.

Thus, the thesis will examine the relationship between the differing preferences and the themes used to describe positive and negative workplace experiences.

Research Question 3

How do descriptions of the nature of work performed at the site, the sense of contribution felt and interaction with patients, coworkers and other health professionals vary by new pharmacy graduates' work-related preferences?

CHAPTER 3

METHODS

This chapter will first describe the study design, response rate and respondent demographics. This will be followed by a description of the content analysis and a description of the measures for quantitative analysis. Finally, it will end with the plan for the statistical analyses.

Study Design and Response Rate

The thesis uses data that were collected by a nation-wide survey of new pharmacy graduates [4]. Data were gathered in the form of mail-back questionnaires as part of the dissertation project by Clark [4]. Objectives of the dissertation project were to examine the contributions of personal and worksite attributes in the development of newly licensed pharmacists' desires for and perceptions of participating in workplace decision-making [4]. The surveys contained questions about pharmacy work including questions about the respondents' personal work-related preferences, work history, desired control during work and reasons for choosing pharmacy as a profession.

The sampling procedure for the dissertation project was as follows. Stratified sampling was used with the four major U.S. Census Bureau regions as strata and pharmacy schools or colleges were sampled proportionate to number of graduates in the four regions. The schools and colleges were contacted during Spring-Summer 1999 for the 1999 graduates' names & addresses or, alternatively, for assistance in mailing

surveys. Out of the 30 schools or colleges contacted, 24 agreed to participate. A total of 1,850 deliverable surveys were sent and 259 were returned, yielding a 14% response rate.

Description of Respondent Demographics

Table 1 compares respondent demographics to demographics of all US pharmacy graduates in 1999. Consistent with the demographics of all US pharmacy graduates in 1999, approximately two-thirds (68.6%) of the respondents were female. Type of pharmacy degree was mixed with 36.8% having a B.S. Pharm. degree (only), 51.4% having a Pharm. D. degree (only) and 11.2% having both degrees. The sample included more respondents with a Pharm.D. degree (only) and fewer respondents with a B.S. Pharm. degree (only) compared to all U.S. graduates in 1999. However, this difference was not statistically significant ($p>0.05$). The typical respondent had worked in 7.3 different pharmacy practice sites; 2/3 of these were "work for academic credit" (mean = 4.9 sites; SD = 3.0) and 1/3 were "work for pay" (mean = 2.4 sites; SD = 1.2) [4]. Respondents' mean age was 27 years (S.D. = 4.7), reflecting a considerable number of returning or second-degree students.

Description of Content Analysis

Content Analysis Questions

The content analysis focused on two open-ended questions that addressed respondents' experiences in their pharmacy practice sites; these sites could have been 'work-for-pay' or 'work-for-academic-credit' sites. Respondents were asked whether they had experienced any specific situation(s) or event(s) that made them feel that the

pharmacy practice site was a particularly 'good' or 'not-so-good' site for them to work. Respondents then were asked to describe the situation or event that they recalled most vividly and the effect(s) it had on them. Both questions were presented on the second-last page of a 12-page questionnaire, giving the respondents half a page to answer each question. The complete questions are presented in Appendix 1.

The questions specifically request respondents not to identify any persons or places by their actual names. Also, they do not ask about their position at the pharmacy site (whether the respondent worked as an intern, clerkship student, technician or pharmacist) and the length of time the respondent spent at the site. Finally, the questions do not specifically ask the respondent to mention the type of setting of the pharmacy (whether retail or hospital or other) and do not ask whether the experience took place at a 'work-for-pay' or 'work-for-credit' site.

Aims for Content Analysis

Content analysis may be briefly defined as the systematic, objective, quantitative analysis of message characteristics [27]. For this thesis, each response was content analyzed to identify:

1) Whether the respondent presented a specific incident or a general impression to describe his/her experiences,

2) What theme or themes were embedded within the response, and

3) The pharmacy setting in which the experience took place.

Identification of Themes

Guidelines presented in the textbook on content analysis by Neuendorf were followed. According to Neuendorf, the first steps in content analysis usually include a qualitative review of the message pool and the development of an emergent coding scheme based on what is represented in the pool [27]. Neuendorf also states that the true content analysis portion is the subsequent careful application of the *a priori* coding scheme to the message pool [27]. Hence, the 172 responses in which the respondents had described a positive and/or a negative experience at a pharmacy site were reviewed and a coding scheme consisting of nine theme categories was developed based on what was represented in the responses. The theme categories included factors that affected work experiences in a pharmacy practice site, as described in the Literature Review (Chapter 2).

These nine theme categories were nouns, such as the patients, other providers or coworkers at the site, rather than abstract concepts. Another researcher using a different perspective may code the same responses differently, by using concepts such as 'role conflict' or 'power' or 'status'. However, the present thesis made a conscious effort to avoid using such concepts to categorize responses. This decision was made based on several reasons. One, the researcher felt using words very apparent in the response like 'the pharmacy practitioner' or 'the nature of work performed at the site' would be coded more reliably compared to abstract theoretical concepts. Second, this coding scheme would facilitate coding of brief responses where it was not possible to seek further clarification of the respondents' motivations, interpretations etc. Also, the coding and interpretation would stay with the respondents' words and would therefore have greater

validity. Quantitative studies presented in the Literature Review had shown that these theme categories were important factors influencing professional pharmacists' work satisfaction and site evaluation. Therefore, using these nine theme categories would be consistent with quantitative literature and contribute to research and knowledge by providing examples of how new pharmacy graduates experience or describe these themes in their practice sites.

The codebook, which provided operational definitions for all the variables, is included as Appendix 2. A brief description of how responses were coded is now presented. Simply put, if the respondent talked about the type of work s/he carried out in the pharmacy, it was coded under 'nature of work'. If s/he talked about people at the site such as the pharmacy practitioner, patient, coworkers or other providers, it was coded under these respective theme categories. If the respondent talked about the sense of contribution or achievement s/he felt at the site or about how s/he made a difference or had some say while working at the site, it was coded under the 'contribution' theme. If the respondent talked about management practices or management philosophy at the site, it was coded under the 'management' theme category. If s/he talked about the pace of work or volume of prescriptions or how busy the pharmacy was, it was coded under the 'environment' category. Responses that could not be coded under the above themes were included in the 'miscellaneous' theme category.

Codebooks and Coding Forms

While the codebook contained the operational definitions for all the variables, the coding form provided spaces appropriate for recording the findings for all variables

measured. Together, the codebook and coding form can stand alone as a protocol for content analyzing messages [27]. The goal for this thesis was to create a set of codebooks and coding forms as complete and unambiguous as possible so as to almost eliminate the individual differences among coders [27]. Hence, even the most mundane details were spelt out and all instructions were written carefully and fully. Instructions were included on the meaning of a particular theme as well as words or phrases that could be used to describe the theme.

Lots of detail was included in the codebook and the coding form was left simple and as a convenient repository for numeric information [27]. The coding form used for analysis is included as Appendix 3. It was a simple grid-like structure that included a row for respondent I.D. number. The variables used for analysis were recorded on separate rows and included the type of response (whether specific incident or a general impression was presented), the presence or absence of a theme, the number of themes, and the type of practice setting (if mentioned). Whether multiple theme categories were present and the overall form of response also were recorded. However, these variables were not analyzed.

Inter-coder Reliability

Before coding all the responses for the final results, it is important to check the reliability of the coding procedures. Reliability can be defined as the extent to which a measuring procedure yields the same results on repeated trials [27]. According to Neuendorf, when human coders are used in content analysis, this translates into *inter-*

coder reliability or the amount of agreement or correspondence among two or more coders [27].

Conflicting codings usually result from cognitive differences among the coders, ambiguous coding instructions, or from random recording errors [31]. Achieving an acceptable level of inter-coder reliability is important to provide basic validation of a coding scheme. It helps demonstrate that the obtained ratings are not the idiosyncratic results of one rater's subjective judgment [27]. Hence, inter-coder reliability with a second coder should be assessed even if the principal investigator does all of the coding [27].

Assessing inter-coder reliabilities

A sub-sample consisting of 50 responses, obtained by systematic random sampling, was used to assess reliabilities. Two coders independently coded this random sub-sample to assess face validity. The inter-coder reliabilities were assessed using two measures: the Percent Agreement and Cohen's Kappa to account for the assumptions and/or weaknesses of each [32]. The reliabilities between the coders for the nine theme categories are presented in Table 2.

The inter-coder reliabilities for all the themes were deemed acceptable, according to the following criteria. Percent agreement between coders which 80% or greater is acceptable in most situations [32]. For Cohen's Kappa, a coefficient of 0.81 or greater signifies almost perfect reliability, a coefficient between 0.61 and 0.80 signifies substantial reliability and a coefficient between 0.41 and 0.60 signifies moderate reliability [33]. None of the themes had Percent Agreement below 80% and Cohen's

Kappa below 0.48. Since the inter-coder reliabilities were acceptable, all responses were coded according to the instructions in the codebook. The results are presented in the next chapter.

Quantitative Analysis

The second objective of this thesis deals with the relationship of certain themes used in positive and negative pharmacy descriptions with the new graduates' work preferences and with the pharmacy setting.

Work-related Preferences

Respondents' work-related preferences were measured using three scales:

1) Quality of Patient Relationships Scale
2) Intensity of Work Demands Scale
3) Desired Control in the Worksite Scale

The first two preferences were measured using scales from the Glaxo Pathway Evaluation Program [34]. The Glaxo Pathway Evaluation Program assists U.S. pharmacy students in evaluating the direction they would like to take in the pharmacy careers. This instrument is one of the methods they provide to students for self-assessment. The Pathway questions have previously been used in research, such as in the dissertation project of Clark on antecedents and consequences of new pharmacists' workplace control [4]. The five items, which comprise the measures for these two areas, were chosen from among 20 Glaxo Pathway Evaluation Program items. The selection of the five items

comprising the two scales chosen for analysis was made after examining the face validity and inter-item correlations among the items.

The first of these preference measures, Quality of Patient Relationships, asked respondents to rate their preferences for closeness, continuity, and meaningfulness in their relationships with patients. This measure consists of three items and the exact questions are presented in Appendix 4. As shown in Table 3, the overall scale reliability using Cronbach's Alpha was 0.81. The average score for the three items was 22.39 (S.D. = 5.28, Range = 3 to 30). A high score indicated a high preference for close, continuous, and meaningful relationships with patients.

The second of these preference measures, Intensity of Work Demands, assessed respondent preferences concerning work pressure and activity levels. This measure consists of two items and the exact questions are presented in Appendix 4. As shown in Table 3, the overall scale reliability using Cronbach's Alpha was 0.66. The average score for the two items was 10.76 (S.D. = 3.82, Range = 2 to 19). A high score indicated a high preference for work with low pressure and low activity levels.

The third preference, Desired Control in the Worksite, was measured using a scale from the Participation Gap Questionnaire (PGQ) developed by Graham and Verma [35]. It was adapted for use with pharmacist respondents by making slight changes in the wording by Clark [4]. Clark changed the wording so that, where applicable, either the pharmacist or the pharmacy was the referent in each item [4]. The PGQ contains two primary components and a derivative participation gap measure. The first primary component is a measure of respondent's expectations (i.e., desire) for pharmacist participation in decision-making in various areas of their jobs (Desired Control). The

second primary component asks respondents to assess how much pharmacists actually participate in the decisions affecting the same job areas (Perceived Control). The participation gap is then calculated by subtracting Perceived Control from Desired Control.

For this thesis, only the Desired Control of the respondents was included in the analysis because the desire for participation in workplace decision-making is a personal preference. The measure for their preference or desire for a certain level of control in the workplace is therefore comparable to their preference for a certain intensity of work demands or a certain quality of relationships with patients. The measure for Desired Control consists of 12 items and the exact questions are presented in Appendix 4. As shown in Table 3, the overall scale reliability using Cronbach's Alpha was 0.88. The average score for the twelve items was 36.87. (S.D. = 6.54, Range = 18 to 48). A high score indicated a preference for greater control in the workplace.

Type of Pharmacy Work Setting

The responses were coded during the content analysis into four categories representing different pharmacy work settings. The four categories were:

1) Retail/Community – A response was coded into this category when it described an experience that took place in a retail/community pharmacy.

2) Hospital/clinic – A response was coded into this category when it described an experience that took place in a hospital/clinic pharmacy.

3) Other - A response was coded into this category when it described an experience at a site that was neither a retail/community pharmacy nor a hospital/clinic pharmacy.

4) Unknown- A response was coded into this category when there was not enough information to ascertain whether the pharmacy was in retail or in hospital or in another setting.

Statistical Analysis

First, a descriptive analysis was carried out for:

1) Frequency of each theme category and mean number of themes,
2) Personal preference variables (i.e. Quality of Patient Relationships, Intensity of Work Demands and Desired Control), and
3) Type of pharmacy setting.

Then, bivariate relationships between presence or absence of certain themes and type of pharmacy setting (i.e. retail, hospital, or unknown) were studied using chi-square tests. Bivariate relationships between presence or absence of certain themes and whether the pharmacy setting was retail or hospital (only) were studied using Fisher's Exact Tests. Fisher's Exact Tests were used because more stable results are obtained if used in analysis where more than 20% of the cells have expected value less than five. P-values are reported with significance defined at an alpha level of 0.05. Finally, bivariate relationships between presence or absence of certain themes and personal preferences for the three variables were studied using T-tests for independent samples. Two-tailed p-values are reported with significance defined at an alpha level of 0.05. Two-tailed tests are reported because the current study is exploratory and the direction of the possible relationships between the variables *a priori* was unclear.

CHAPTER 4

RESULTS

This chapter first will describe the results of the content analysis. This includes the frequencies of positive and negative experiences, the themes encountered, their frequencies, the percent positive comments for each theme and the average number of themes per response. Then, results pertaining to the type of pharmacy work settings and the work-related preferences will be presented. Finally, the chapter ends with a discussion the assessment of bias due to missing data.

Research Question 1: Themes Identified

Frequency of Practice Site Descriptions

Table 4 shows the frequency of description of positive and negative practice site experiences. Approximately two-thirds (172/259 = 66.4%) of all survey respondents described a positive and/or negative practice site experience, with approximately half (126/259 = 48.6%) describing both. For those describing either a positive or negative experience (but not both), responses were relatively balanced with 26 respondents (10%) describing only a positive and 20 (7.7%) describing only a negative experience. Eighty-seven respondents (33.6%) did not answer either of these questions. This could either be because they had no particularly 'good' or 'bad' practice site experiences or because they simply skipped the questions.

Global Assessment Versus Specific Incident

As shown in Table 5, nearly all experiences described reflected the respondent's general impression, global assessment, or overall experience with the site (88.1% of positive descriptions and 93.1% of negative descriptions). Approximately 1 in 10 responses commented on a specific incident the respondent had experienced. Positive descriptions were about twice as likely as negative descriptions to involve specific incidents (11.9% versus 6.8%). This accounts for only a small proportion of all responses, however.

Identification of Themes

The themes identified included factors both internal and external to the pharmacy site. A brief explanation of the themes and examples of responses containing each theme are presented in the Table 6.

Many responses included more than one specific theme. The mean number of themes per response was approximately 1.59. Positive responses tended to include marginally more themes (mean = 1.65) than did negative responses (mean = 1.53).

Frequencies and Descriptions of Themes

Table 7 shows the frequencies of each of the theme categories. The most common theme concerned the nature of the work that respondents performed at the site. This was mentioned 134 times in total, with responses balanced between 74 positive and 60 negative descriptions. Respondents felt that the use of their pharmacy/clinical knowledge, doing a variety of tasks that were interesting and not monotonous or

repetitive, was important to them. Positive (and negative) descriptions generally indicated that the site did (or did not) provide this.

The next cluster of themes relates to orientation of and relationships within the pharmacy itself, including themes about site management, supervisor, pharmacy environment and co-workers. Responses coded here as *management* refer to the whole organization (such as the pharmacy, hospital or managed care organization) while responses about a specific individual (such as the pharmacy manager, preceptor or manager) were coded under the *supervisor* theme.

When management themes were included, they disproportionately described a negative experience, accounting for 45 of 76 mentions (59.2%). Negative descriptions included management that did not respect or recognize pharmacists, laid down rules that the pharmacist did not agree with, ran an inefficient workplace, and offered no opportunity for advancement for the pharmacist. Seventy-two responses included themes about specific people working in the pharmacy, i.e., the supervisor/preceptor/manager or co-workers. Like the management responses, most of these responses (43/72 = 59.7%) described negative experiences, such as interactions with quarrelsome, unprofessional and unhelpful supervisors or staff.

The theme of pharmacy environment included comments about the spatial and temporal aspects of work. The 48 responses about the environment were also overwhelmingly negative with 15 positive and 33 negative descriptions. Stressful, overwhelming and unprofessional environments were described as negative while positive environments were the opposite.

An interesting cluster of themes addressed relations with patients and other health providers. Nineteen positive descriptions identified being consulted, respected and appreciated by patients as being important to new pharmacy graduates. It is encouraging that patients were mentioned more often in positive rather than negative terms. Nonetheless, 14 descriptions (42.5%) did mention something negative about patients, for example that the respondent had unpleasant interactions with angry patients or that the patients were rude, ungrateful or unappreciative of the pharmacists' efforts. Other providers (e.g., physicians, nurses) were also mentioned relatively frequently. When mentioned, this described a positive experience, accounting for 29 of 43 mentions (67.4%). Positive experiences occurred if the other health providers such as physicians and nurses respected the new pharmacists, consulted with them on treatment options and followed their suggestions.

Another interesting theme involves the sense of contribution or accomplishment the new pharmacy graduate felt at the site. This theme is noteworthy because it appears six times more often in positive site experiences than in negative experiences (51 mentions versus 8 mentions, respectively). Many of the new graduates reported feeling a sense of contribution when they made a difference or had some 'say' in the pharmacy. This theme was used when the new pharmacy graduates impacted patient outcomes, contributed to decision-making and gained a sense of accomplishment.

Responses that did not fit into the above themes were coded under the miscellaneous category and included 3 positive and 7 negative descriptions.

As summarized in Table 7, comments on contribution, other providers, patients and the nature of work were overwhelmingly positive. Comments on coworkers, management, supervisors and the environment were overwhelmingly negative.

Research Question 2 : Relationship Between the Themes and Pharmacy Practice Setting

Frequencies of Different Pharmacy Work Settings

Table 8 shows the distribution of various pharmacy work settings as mentioned in the responses. As shown, for positive experiences, 26 responses described a retail setting while 62 described a hospital/clinic setting. Six responses described a setting other than retail or hospital including three that described the pharmaceutical industry, two that described homecare setting, and one that mentioned two settings in the same response. Fifty-four responses were coded in the 'unknown' category because they did not provide enough information to ascertain the type of setting in which the experience took place.

For negative experiences, the results are quite different: 61 responses described a retail setting while 32 described a hospital/clinic setting. The 'other' category included six responses including two that described a homecare setting and four that mentioned multiple settings in the same response. Forty-four responses were coded in the 'unknown' category because they did not provide enough information to ascertain the type of setting in which the experience took place. The twelve responses in the 'other' category were not included in further analysis.

Analysis of Relationship Between the Themes and Pharmacy Practice Setting

Bivariate relationships between presence or absence of certain themes and type of pharmacy setting were studied using chi-square tests for dichotomous variables. P-values were reported with significance defined at an alpha level of 0.05. Table 9 shows a cross-tabulation of the presence or absence of positive or negative responses by the type of pharmacy setting (i.e. Retail, or Hospital, or Unknown) for selected themes and the p-values obtained after performing the Chi-Square Test between the variables.

As shown by Table 9, there is a relationship between whether the respondent talked positively about the nature of work performed at the site, the sense of contribution at the site, patients, other providers and coworkers at the site and whether the site was in a retail or hospital or an unknown setting. The themes used in positive site descriptions that differed significantly in their distribution across practice setting included:

1) The nature of work performed ($p < 0.05$): mentioned 36 times in hospital versus 26 times in unknown sites and six times in retail sites

2) The sense of contribution felt ($p < 0.05$): mentioned 27 times in hospital versus 14 times in unknown sites and five times in retail sites,

3) The patient ($p < 0.01$): mentioned three times in hospital versus eight times in unknown sites and eight times in retail sites

4) Other providers ($p < 0.01$): mentioned 19 times in hospital versus seven times in unknown sites and once in retail sites

5) Coworkers ($p < 0.05$): mentioned once in hospital versus nine times in unknown sites and four times in retail sites.

For negative descriptions, there was a relationship between whether the respondent talked negatively about the nature of work performed, other providers and coworkers at the site and the setting of the pharmacy. The themes used negatively that differed significantly in their distribution included:

1) The nature of work performed ($p < 0.05$): mentioned 16 times in hospital versus 10 times in unknown sites and 27 times in retail sites

2) Other providers ($p < 0.01$): mentioned seven times in hospital versus three times in unknown sites and twice in retail sites. This result is not stable because two cells (or 33.3%) had expected frequency less than five. Hence, this result should be interpreted with caution.

5) Coworkers ($p < 0.00$): mentioned three times in hospital versus 15 times in unknown sites and twice in retail sites.

Analysis of Relationship Between the Themes and Whether the Site was in Retail or Hospital

Bivariate relationships between presence or absence of certain themes and whether the pharmacy setting was retail or hospital/clinic (only) were studied using Fisher's Exact Tests. P-values were reported with significance defined at an alpha level of 0.05. The results are presented in Table 10. The table also shows the p-values obtained after performing chi-square tests between the variables. As explained earlier, Fisher's Exact Tests were used in preference to Chi-Square Tests because some variables had more than 20% of their cells with expected frequency less than five. Hence the results of the Chi- Square analysis were not as stable as the results of the Fisher's Exact Tests.

As shown by Table 10, there is a relationship between whether the respondent talked positively about the nature of work performed at the site, the sense of contribution at the site, patients, other providers and coworkers at the site and whether the site was in a retail or hospital setting. The themes used positively that appeared significantly more often in hospital than in retail settings included the nature of work performed ($p < 0.01$), the sense of contribution felt ($p < 0.05$), and other providers ($p < 0.01$). On the other hand, the themes that appeared significantly more often in retail than in the hospital sites included positive interaction with coworkers ($p < 0.05$) and positive interaction with patients ($p < 0.01$).

For negative descriptions, there was only a relationship between whether the respondent talked negatively about the interaction with other providers and the setting of the pharmacy. Negative interactions with other providers occurred significantly more often in the hospital compared to retail pharmacy ($p < 0.01$)

Comparison of Results of Tables 9 and 10

A comparison of Tables 9 and 10 suggests that the effect of practice setting on positive theme descriptions remains consistent for nature of work performed, sense of contribution felt, positive interaction with patients, other providers and coworkers whether or not 'unknown' practice setting responses are factored in. For negative responses, the non- significant results for the 'contribution' and 'patient' themes and significant results for the 'other providers' theme remain consistent for the two tables. However, the significant results for negative responses about coworkers and the nature of work are no longer significant when 'unknown' practice setting responses are excluded.

Research Question 3: Relationship Between the Themes and Work-Related Preferences

Analysis of Relationship Between the Themes and Work-Related Preferences

Bivariate relationships between presence or absence of certain themes and the respondents' work-related preferences were studied using T-tests for independent samples. Two-tailed p-values were reported with significance defined at an alpha level of 0.05.

As shown by Table 11, no relationship was found between whether the respondent talked positively or negatively about the nature of work performed at the site, the sense of contribution at the site, patients, other providers and coworkers at the site and the respondents' preferences for the Quality of Patient Relationships.

A relationship was found between whether the respondent talked either positively or negatively about the patient at the site and the Intensity of Work Demands ($p < 0.05$) with respondents who mentioned the patients at the site preferring a less pressured practice site. A relationship was also found between whether the respondent talked positively about other providers and his/her Desired Control at the site ($p < 0.05$) with respondents who mentioned other providers desiring lesser control than those respondents who did not mention other providers in their positive site evaluations.

To summarize Table 11, the dominant pattern is that the respondents' work-related preferences generally did not predict what they talked about while describing positive and negative work experiences. The two significant relations could be results of random effects due to the large number of tests carried out.

Assessing Bias Due to Missing Data

To check for bias due to missing data, survey respondents who answered the open-ended questions about their work experiences were compared on the basis of their demographic characteristics to survey respondents who did not answer the questions. No significant differences were observed between respondents and non-respondents based on gender, age and type of pharmacy degree. These results are not presented.

Also, the thesis analyzed the relationship of gender and type of pharmacy degree with the magnitude of work-related preferences and presence or absence of themes in positive or negative responses to account for the possibility that gender and degree type may affect the results obtained above. The analyses found non-significant relationships between gender and pharmacy degree type on these variables. These results are also not presented.

CHAPTER 5

DISCUSSION

This chapter will first present a brief summary of the study and its limitations. Then, it will discuss the implications of the findings, avenues for future research and the contribution of the thesis to literature in this area. Finally, it will end with the conclusions of the study.

Summary

The thesis examined work experiences of new pharmacy graduates in 1999 using a modification of Flanagan's Critical Incident Technique. It used content analysis to identify and describe themes embedded in the graduates' descriptions of 'good' and 'not-so-good' worksites. It also analyzed the relationship of the themes used with the pharmacy work setting and with the graduates' work-related preferences.

Approximately two-thirds (172/259 = 66.4%) of the respondents described a positive and/or negative practice site experience, with approximately half (126/259 = 48.6%) describing both. Nine theme categories dealing with factors internal and external to the pharmacy were ascertained. Much of the respondents' focus was on the nature of work they had performed at the sites. This was the most common theme mentioned 134 times in total, with responses balanced between 74 positive and 60 negative descriptions. Responses about relations with those outside the pharmacy (patients, other providers) were mostly positive (63.2 % of the mentions were positive) and responses about internal aspects of the practice site (management, coworkers, pharmacy environment) were

mostly negative (61.7 % of the mentions were negative). Having a sense of contribution and achievement at the site resulted in positive evaluations (86.4 % of the mentions were positive).

Positive interaction with coworkers ($p < 0.05$) and patients ($p < 0.01$) were reported more often in retail than in hospital pharmacies. Positive responses mentioning the nature of work performed ($p < 0.01$), the sense of contribution felt ($p < 0.05$), and the interaction with other health providers ($p < 0.01$) occurred more often in hospital than in retail pharmacies. Respondents varied in their mentions of patients depending upon their preference for the intensity of work demands ($p < 0.05$) and in their positive mentions of other providers depending on their desire for control at the site ($p < 0.05$).

Study Limitations

The thesis carried out a secondary analysis of data collected by Clark for a study assessing the contributions of personal and worksite attributes in the development of newly licensed pharmacists' desires for and perceptions of participating in workplace decision-making [4]. Hence, many of the limitations for this thesis are related to the limitations of secondary analysis where the researcher does not have control over wording, placement and collection of questions.

This thesis applied an adaptation of Flanagan's critical incident technique [25]. However, instead of a specific incident, a vast majority of the respondents (88.1% of those with positive descriptions and 93.1% with negative descriptions) related their general impression of the worksite. This could be a function of the manner in which the questions were asked. On the other hand, it could be reflective of the way in which these

respondents formed impressions of pharmacy practice sites. Respondents might simply be more responsive to the general experience of working at a site rather than to specific incidents that had occurred. Another explanation could be that they had several specific incidents, which over time melted into one general impression.

One of the criteria that a critical incident should fulfill is that it should be possible to describe it completely [25]. While some respondents used all the space allotted (half a page for each question) others were exceedingly brief in their answers. The placement of the questions towards the end of a lengthy questionnaire might have resulted in abbreviated (or missing) responses from some respondents. The wording and placement of the questions in a questionnaire should be considered carefully. Use of techniques like the personal interview while more time consuming could help obtain a complete description of the incident and further clarification if needed.

The low response rate (14%) makes generalization of these results to all pharmacy graduates in 1999 difficult. The demographics of the respondents are comparable to all pharmacy graduates in 1999 (Table 1). However, the low response rate must be kept in mind while interpreting the results. Another consequence of the low response rate was that it limited the type of analysis that could be carried out with the variables. This is because there were often a small number of cases in some theme categories. More cases would have enabled the use of more complex statistical analysis techniques and would have ensured greater stability and robustness of the findings.

The cross sectional design of the survey instrument made it difficult to ascertain if the new graduates' preferences were formed before or after their pharmacy worksite

experiences. Hence, a causal relationship cannot be specified between these two variables.

Finally, the questions asked the respondent to recount experiences at a 'good' or a 'not-so-good' worksite and requested that they not identify the worksite or person(s) involved by name. This made it difficult to identify the type of practice setting for about 54 'good' sites and 44 'not-so-good' sites, thereby reducing the number of cases for analysis. A modification to these questions could be to request the respondents to explicitly state the type of work setting where their experiences took place (e.g. whether retail or hospital or other). Further, additional details on the type of pharmacy organization (whether the pharmacy site was a chain, independent, hospital or clinic pharmacy) and whether the site was a 'for pay' or 'for credit' site could also help in analyzing the influence of pharmacy setting on the work experiences. The questions did not ask the respondent to specify their position in the site where the experience took place or to specify whether the experience took place before or after licensure. Future use of these questions should request the respondents to specify these details. This would give greater background and context to the experiences and thus help in their interpretation.

Implications of the Content Analysis Results

The respondents used factors internal to the pharmacy (such as the nature of work, work environment, management and staff) and external to the pharmacy (like patients and other health providers) to describe positive and negative site experiences.

Factors External to the Pharmacy

Overall, patients and/or other providers appear to serve as an asset for the pharmacy. They tended to provide the pharmacy graduates with respect, recognition and appreciation, which the graduates remembered and cherished.

Patients.

Patients were mentioned more often in positive experiences than negative ones. This reinforces the general perception that some students join pharmacy to help patients and want to interact with them. Respondents enjoyed contact with patients who listened to them, appreciated their efforts and expressed gratitude. Examples of responses containing positive descriptions of patients include:

> "A patient thanked me for 'taking care of (her)' and wished me luck in my professional career. She said I'd make an excellent pharmacist."

> "At my first externship, I practiced pharmacy in a clinical setting at a grocery store. The patient I saw responded so enthusiastically to the one-on-one patient care I was giving. That is one of the main reasons I chose ambulatory care as my primary practice setting."

Some respondents did mention patients negatively, especially when the patients were rude, demanding, and angry. Two examples of negative descriptions of patients include:

> "Patients cursing you out because something is not working right for them (i.e. insurance) in a retail setting – not much respect from patients – especially when you look young."

> "Patients in retail pharmacies are overly concerned with getting the work done fast and with the pharmacy getting their insurance to cover the drug right now. Seem unconcerned with quality/accuracy/safety. Also it is clear although we may be the most trusted professionals; we are not the most respected."

Thus, while pharmacy graduates liked to help and interact with all patients, they especially appreciated patients who were civil and who treated them as professionals.

Other Providers.

Interaction with other providers was also overwhelmingly described as being positive. Pharmacy graduates seemed to enjoy making rounds with physicians and residents and contributing to decision-making. They related incidents in 'good' sites where the pharmacist was part of the multidisciplinary team and involved in all aspects of patient care. Positive experiences with other health professionals included instances when the pharmacist's suggestions were respected, appreciated and implemented by the other providers. Two examples of positive descriptions of other providers are:

> "When I could tell a resident my opinion on a patients' medical drug treatment and the resident changed the therapy to what I had suggested."

> "Working in an ambulatory care clinic where the MDs were very receptive to pharmacy and took into consideration suggestions/requests that you made. Pharmacists could see patients and feel confident their recommendations would be granted."

Negative experiences occurred when other providers had no respect for the pharmacist and resented or blocked the pharmacists' involvement in patient care. Two examples of such negative descriptions are:

> "I worked for academic credit in a medical center where pharmacists were looked upon as intruders if they went up on the floor. Notes they wrote were not allowed to be part of the medical record and clinical aspects of pharmacy were not supported. Even though this place is in my hometown, I would probably never work there."

> "This was a clinical setting in which the pharmacist was on a team with physicians who had no respect for her knowledge. Whenever she would recommend drug therapy, they would not agree. Her role on the team was basically as a book-keeper – they asked her what meds the patient was taking prior to discharge. Other than that, she was useless to them. It made me feel that her position was worthless and I would never want her job."

Role of Significant Others.

These findings about the importance of other providers and patients are consistent with Manasse and colleagues characterization of their roles as 'significant others' in the

professional socialization of pharmacists [3]. According to the authors, the perception of the pharmacists by these groups has significant impact on the role conflict experienced by pharmacy and has contributed to the inconsistent socialization process [3]. They suggest that modification of the role expectations of others will be necessary if pharmacy is to perpetuate its desired new role in patient care [3]. Thus, education of both physicians and patients about the role of the pharmacist would eventually lead to greater job satisfaction for the pharmacist. This is because the pharmacists then would be utilized in a manner consistent with their professional aspirations and would be able to play their desired roles in patient care.

Factors Internal to the Pharmacy

Many frustrations appear to originate from within the practice site itself. A busy pharmacy environment and working continuously with the same people could contribute to this. Another reason could be that the respondents were new to the site and could have had a steep learning curve.

Environment.

New graduates seemed to enjoy pharmacy environments that were professional and not too busy. They enjoyed having time to reflect on their work, to look up the relevant literature and to take breaks from time to time. Examples of responses that illustrated this are:

> "I really enjoyed working in the supermarket environment; there is sufficient patient interaction without much of the pressure to fill hundreds of prescriptions. It would be the ideal place for me to work."

"I did enjoy having lunch breaks at the hospital and having qualified technicians. Having a chair to sit in was nice as well – especially when I was pregnant. 10 hours wasn't so long at the hospital."

Pharmacy environments that were too busy and overwhelming were, understandably, viewed unfavorably. Respondents felt stressed and harried while working in such environments. Another concern with such environments was that they made the pharmacists appear unprofessional because the pharmacists were often too busy to counsel patients properly. The new graduates also worried about the errors that might have occurred due to the fast pace of work at such environments. Examples of such responses are:

"Busy pharmacy- fill 5000 – 7000 Rx/wk – everyone including R.Ph + Tech is like a working machine. Quantity weighed over everything. You just don't have the time to think."

"Spending the entire day answering phones and counting pills at such a rate that there was no time for lunch or bathroom break. Influenced my decision not to work in the retail pharmacy setting."

"Working as a pharmacist during a weekday, I started getting swamped with prescriptions. Got so bad that the wait became 2 hours (only had one tech with me). I go out to the aisle to help someone and someone else yells at me 'Go and get my prescriptions'. Saying it in a way that accused me of taking my time when in fact I'm trying to do 10 things at once. Felt unappreciated and even worse, felt like a slave horse just pumping scripts out as quick as they come in."

Management.

Related to the pharmacy environment was the availability of resources in the pharmacy. Pharmacies that provided enough resources for pharmacists to do their job professionally were looked upon favorably. Respondents commented favorably on sites that made patient care the focus of the pharmacy. Another interesting finding is that new graduates liked certain pharmacies because corporate management positions were filled

with pharmacists. Respondents felt that such corporations understood their working conditions and professional obligations better than non-pharmacist dominated corporations. Examples of positive descriptions of pharmacy managements include:

> "I worked for an independent pharmacy that went out of their way to compound a prescription for a cat that didn't like cherry syrup. I liked the atmosphere and customer service this pharmacy offered to its clients, it made me free (sic) that the pharmacist really played an important role to the community."

> "HMO- Managed Care Organization. Focus on prevention, truly cared about patients and had great resources to educate patients."

Pharmacies that did not respect the 'professional' aspect of the pharmacists' work were not appreciated. Instances where the new graduates encountered unfavorable management policies were related and included examples where pharmacists were made to ring up groceries, or were contradicted in front of patients, or were made to act contrary to their professional judgment. Sites that did not provide adequate resources for the pharmacist to function properly and where the focus was on dispensing, rather than on patients, were also viewed unfavorably. Examples of such responses include:

> "The pharmacy (retail) that I worked at had the philosophy of making pharmacy practice like fast food i.e. providing prescriptions to the patients as fast as possible without caring for the quality of the pharmaceutical care given to the patients i.e. little opportunity/availability for counseling patients on optimal use of their medications. Made me very discouraged about retail pharmacy in general."

> "At one pharmacy site, the management tried to run the pharmacy with a 'customer is always right' attitude. This included when questions of law were involved. Pharmacists were contradicted in front of patients and punished for trying to do their jobs."

> "(retail pharmacy) I was expected to allow a customer to pick up their prescription for their inhaler for emphysema, while ringing up a sale for their carton of cigarettes. That was the day I quit."

Coworkers.

Coworkers were also mentioned as factors influencing experiences within a pharmacy worksite, especially for negative site descriptions. Coworkers who were not helpful, who were not friendly and who did not get along with each other, contributed to negative work experiences. Coworkers perceived to be 'unprofessional', who did not talk to patients, who did not use their pharmacy knowledge and who mostly did technical 'busy' work, were also looked upon unfavorably. Examples of negative descriptions of coworkers are:

> "I worked in a place for academic credit in which there was a lot of animosity between employees. Some of the staff were very unreceptive to students. Created a terrible work environment."

> "The pharmacists were in a retail setting and they were proud that they did not have a counseling window. They hated talking to patients and hated answering questions. They focused on the amount of $ they were making and not the profession of pharmacy and helping people."

Positive experiences occurred with coworkers who were perceived favorably, both personally and professionally. An example is:

> "Retail pharmacy – The two pharmacists whom I worked under and the store itself were very patient focused and stressed the importance of getting to know customers closely and thereby improve medication outcomes."

Thus, pharmacy graduates would like their coworkers to be people with whom they could get along personally and also, respect professionally.

Supervisor.

Considering the role of pharmacy supervisors and preceptors in the professional socialization of pharmacy students has been described as enormous and substantial [1], it was gratifying that many pharmacy graduates interacted with exceptional pharmacists.

These supervisors and preceptors were described in positive site experiences as inspiring, focused on patient care, knowledgeable and involved with the community. Good preceptors and supervisors also took their role as teachers and mentors seriously. They had a lot of interaction with the graduates, challenged and motivated them, gave them opportunities and responsibilities and praised them whenever needed. Examples that illustrate this are:

> "One site I worked for credit, the preceptor was very much involved with the patients and community. He had a personal relationship with all his customers and I felt that was a very good thing."

> "I have had wonderful preceptors throughout my educational experiences. I was given quite a lot of responsibility on each rotation and feel that the faith they had in my abilities gave me confidence in my knowledge. These preceptors are the best colleagues a person in my position could have and know professionally."

> "One of my rotation sites. I felt my preceptor promoted pharmacy on a positive light at all times, and also assisted me in improving my skills when seeing patients as well as my skills in drug dosing. Criticism was always given as "constructive" and really helped me enjoy my rotation. I feel this person really helped me learn a lot and I always looked forward to going every day to learn something new."

Negative responses described autocratic, insecure and unprofessional practitioners. Negative descriptions occurred more frequently in 61.1 % of the responses. An example of such a response is:

> "I worked in a retail chain pharmacy when I first started pharmacy school. The pharmacist would get angry if I ever counseled patients or answered questions. He was very old and felt these activities were a 'waste of time'. He believed the pharmacist's job (only job) was to 'count, lick, stick, and pour'. He also hated the drug info sheets we gave patients. He felt it was better if the patients had no knowledge of their drug therapy."

Thus, for supervisors and preceptors to be perceived positively, they should not only fulfill their role as professional pharmacists but also teach and encourage the pharmacy graduates so that they would eventually become more confident practitioners. Preceptors should realize that the graduates were still in the 'learning mode' and at a

critical stage in their careers. Hence, the graduates appreciated affirmation and support, not only from people outside the pharmacy like patients and physicians, but also from people within the pharmacy like their preceptors and coworkers.

Nature of work.

Consistent with quantitative research about the importance of nature of work, the thesis found that the nature of work at the site was most frequently mentioned theme. Nature of work was mentioned more often in positive appraisals than in negative (74 positive mentions versus 60 negative). Pharmacy graduates especially enjoyed the content of work at sites where they used their specialized clinical and compounding knowledge for patient care and to impact outcomes. Examples of positive descriptions of the nature of work carried out at the site are:

> "I really enjoyed working directly with people at one site. Where (sic) I kept track of patients' lipid profiles over time. (I actually took blood) I really enjoyed doing kinetics and dosing EPO for dialysis patients…."

> "Rotation at (name) was a clinical rotation in which I applied much of my pharmacy background. There was daily interaction with other healthcare professionals and the pharmacists did rounds with the team of doctors. The pharmacists were asked for input in different patient cases and were used as drug resources. This area put to use my pharmacy background taught in class."

On the other hand, negative work experiences occurred when they only carried out technical or monotonous tasks at the site. Also, at some sites, the graduates were not able to interact with patients as much- a factor that was important to them. Sites where there was no opportunity for the new graduates to use their clinical knowledge were perceived unfavorably. Examples of responses that contained negative descriptions of the nature of work carried out at the site included:

> "I worked at a community pharmacy once where you did nothing except file, count, and ring up the cash register. I found it very frustrating and cannot understand why you need a pharmacy degree to perform the task."

> "I thought that the hospital work that I was involved in was boring, repetitive and mindless busy work. I could never see myself doing hospital pharmacy after working in a hospital for 4 weeks. It was unchallenging and completely unmotivating."

Implications.

These results have implications for pharmacy managements as well as for schools of pharmacy. Creation of an environment supportive of the new pharmacist by the management and co-workers will aid the transition of the new pharmacist from student to practitioner. Also, opportunities for pharmacists to practice in expanded roles are appreciated. Finally, while it is beneficial for pharmacy schools to continue to teach students effective ways to deal with patients, devoting more time to teach students to deal with management and coworkers may also be warranted.

Professional Image

Overall, an important criterion in site appraisal seemed to be whether the site allowed the pharmacist to appear 'professional'. Pharmacy graduates were concerned about their professional image. Many negative site experiences occurred because the graduates were made to do work that did not utilize their knowledge and made them appear unprofessional. Quotes that illustrate this are:

> " The normal routine of a 'busy' pharmacy with phones ringing, techs asking questions, patients walking up to where the pharmacist is working is exactly the type for situation for errors to occur. This decreases the level of our professional image to the public. We become a 'drug dispensing' machine until chaos interrupts our workflow. I was stressed and felt like I had no control over my job. I sometimes spent time after work accessing (sic) if I had made a mistake."

"I am not a cashier! Working 10 hours straight with no breaks, having the pressure of accurately filling a prescription and counsel the patient while being the only person there as all phone lines rang, someone wanted to pick up (be checked out), had one doctor on hold for a new RX, one patient on hold with a question, 7 new Rx (3 written illegibly) a line for pickups, thousands of refills and a bladder that was full!"

On the other hand, positive site experiences occurred when the new graduates were consulted, utilized and respected, as 'professionals' should be. Quotes that illustrate this are:

"Hospitals seem to focus on professionalism and patient care. The work load is such that enough time can be devoted to do things right."

"In one location doctors came to the pharmacist's office and asked their opinions on what medication to use based on the patient's specific health conditions. I felt this was the 'right' way a pharmacist should be utilized."

This has implications both for schools of pharmacy and employers. Schools should be pleased that the new graduates felt 'appearing professional' was important to their daily functioning. This suggests that efforts to instill professionalism in pharmacy students have been successful. However, there were many instances where the graduates' work-related expectations were not met and they felt the site functioned in a manner inconsistent with professional norms. This often led to dissatisfaction with the worksite. Thus, there is some evidence that the 'inconsistent socialization' described in literature exists in pharmacy practice. Hence, schools should work with all pharmacies, especially clerkship and internship sites, to ensure that pharmacy students get the consistent messages from both the worksite and from the pharmacy school.

Similarly, pharmacy employers should realize that appearing professional is important to new pharmacy graduates. Often, internship and clerkship periods are the first introductions for pharmacy students to 'real' pharmacy work [5]. Therefore, new graduates may experience first job shock when their work at the site is not consistent with

their expectations [4]. Employer pharmacies should provide the resources and facilities that new graduates need to utilize their pharmacy knowledge and to become confident and proud of their positions. Making the new pharmacists work in conditions where they are stressed, unhappy and concerned about appearing unprofessional, could eventually lead to higher job turnover. Hence, pharmacy employers should work to make pharmacy worksites consistent with professional norms, so that pharmacy graduates are able to fulfill their professional obligations, both to their patients and to themselves.

Finally, the thesis illustrates the value of 'significant others' like other healthcare providers as a source of positive reinforcement for pharmacists if they utilized the specialized knowledge that pharmacists provide. New pharmacy graduates often felt being part of the therapeutic decision making, being able to suggest alternatives and impacting outcomes was the 'right' way to utilize the pharmacist. Thus, physicians should be educated about the role of the pharmacist so that the pharmacist can be included and utilized as an important member of the health care team.

Implications of the Statistical Analysis Results

Effect of Pharmacy Setting

Positive work experiences describing the nature of work performed, the sense of contribution felt, and positive interactions with other providers were reported more often in hospital than in retail settings. This finding is consistent with the study by Henderson and colleagues which found that most pharmacy students perceived hospital practice as a challenging environment in which pharmacists could more effectively use their professional knowledge, develop professionally, and interact with other health providers

compared to retail environments [28]. This finding implies that pharmacy graduates tend to feel positively about hospitals where opportunities are available for pharmacists to use their knowledge, to interact, be consulted and respected by doctors and to contribute to decision-making and make a difference. While this has implications for all pharmacy environments, it is especially important for hospital pharmacies, to make sure pharmacists are utilized in this manner for positive work experiences.

Conversely, positive work experiences describing interactions with coworkers and patients occurred more often in retail than in hospitals. This could be a function of the job description and nature of work at the hospital. In many hospitals, pharmacists are involved in interdisciplinary committees and are consulted by physicians on therapy decisions. In today's hospitals, pharmacists spend less than half their time in dispensing activities and more time in consulting activities [17]. Hence, the new pharmacists in hospitals may not have had as much direct interaction with other pharmacy coworkers and patients as the pharmacists in a retail setting and hence, may not mention them as much in their description of positive factors affecting their site evaluation.

Another implication is that good relations with coworkers and patients are important to new pharmacists, especially in retail pharmacies. Besides the work that the new pharmacist does, positive reinforcement, appreciation and cooperation from other people, both within the pharmacy and without, makes for positive work experiences.

For positive site descriptions, 62 responses described a hospital/clinic setting and only 26 responses described a retail setting. Unfortunately, 54 responses were coded in the unknown category because there was not enough information to determine if the description was of a retail or hospital setting. Therefore, one cannot determine how the

frequency of the positive descriptions would change if these 'unknown' sites were factored in. For negative site descriptions, the order was reversed: 61 responses described a retail setting while 32 described a hospital setting. Here again, one cannot determine how these frequencies would change once the 44 'unknown' sites responses were factored in.

Still, this is an interesting finding for further study. One interpretation of these results could be that pharmacy graduates' positive work experiences occurred more frequently in hospital than in retail while negative work experiences occurred more frequently in retail than in hospitals. This can have implications for future practice area choice and job satisfaction. Hence, this finding should be explored further to ascertain the effect of pharmacy setting on the pharmacists' job activities, work experiences and job satisfaction.

Effect of Work-Related Preferences

One of the research questions was to study how the themes used to describe positive and negative work experiences varied by work-related preferences. No relationship was found between the themes used and personal preferences for the Quality of Patient Relationships. This finding could be due to a variety of reasons. One explanation is that preferences about the quality of patient relationships are not related to or do not predict positive or negative work experiences. Another explanation could be that respondents have similar preferences for this work-related construct. Hence, one should study the respondent's ability to deal with patients in the workplace rather than their preference for patients. Finally, social desirability may have factored into the

respondents' evaluation of their preferences. Given the emphasis on patient relationships in pharmacy today, the respondents may have felt that rating their preference for patient interaction as 'low' would be socially undesirable. This could also have influenced variability.

Preferences for Intensity of Work Demands were related to mentions of the patients at the site. Respondents who mentioned patients in positive or negative site descriptions preferred less pressure and less work demands than respondents who did not mention patients. A possible explanation is that respondents might be more or less sensitive to patients at the site depending on the intensity of work demands they desire. Also, Desired Control at the site was related to positive descriptions of other providers at the site. Respondents who mentioned other providers in positive site descriptions desired less control respondents who did not mention other providers. A possible explanation is that respondents might be more or less sensitive to other providers at 'good' sites depending on the amount of control they desire. This finding illustrates the possibility that respondents may use different criteria to evaluate a site based on their preferences for these two work-related constructs. Respondents who prefer less control and work intensity within the pharmacy may be more sensitive to people outside the pharmacy, such as patients and other providers. These results require further study to ascertain the possible effects of varying preferences for intensity of work demands and control at the worksite on pharmacists' preferences for different work activities and use of different criteria for worksite evaluation.

Future Research

Further Analysis of Contribution/Accomplishment at Work

The theme of 'contribution/sense of achievement' was mentioned repeatedly (51 times) in positive experiences and only eight times in negative experiences. Maslow's Need Hierarchy theory of satisfaction might explain this discrepancy [36]. The theory states that an employee would think of achieving a higher need like 'the need to attain a state of self-actualization' only after his basic needs were satisfied [36]. In 'good' worksites, the basic needs of the new pharmacists might have been satisfied – i.e. they worked with professional coworkers and preceptors, were respected by physicians and patients, the environment was not too hectic, the management was supportive and they performed tasks that were interesting and made use of their expertise. The new pharmacists could then focus on making their job as fulfilling as possible and hence, talk about the sense of achievement/contribution they felt at work. On the other hand, pharmacy graduates who worked at 'not-so-good' sites did work that they did not enjoy and interacted with unprofessional coworkers in an environment that did not utilize their potential. They possibly spent most of their time trying to deal with the lack of basic infrastructure and support at the worksite and hence, may not have felt much 'contribution or achievement' by working at the site.

The thesis has not analyzed this finding further to see what factors contributed to feeling 'a sense of achievement' in positive experiences. Possible factors include the new graduates' demographic characteristics and work-related preferences, the type of pharmacy work setting and the presence of contributing positive themes. This analysis could be carried out as future research on this subject.

Effect of Experiences on Future Work Setting Choices

A number of responses describe the respondent's experiences at a particular work setting – for example, in retail or in a hospital/clinic. If the respondents enjoyed work at these sites and/or felt a sense of achievement or fulfillment at these sites, they might end their response with phrases such as "that is why I chose to work in (type of) pharmacy". A quote that illustrates this is:

> "I interned at a (pharmacy name) Pharmacy for 5 weeks. Many of the patients knew the pharmacist by name. It was busy enough to present varied challenges but almost never hectic. I was impressed how professional the pharmacy was conducted in an obvious retail setting. The interactions/ relationships between the pharmacists and the technicians were very solid and productive. These experiences were the primary reasons I sought employment with (pharmacy name)."

On the other hand, if the respondents were unhappy with their experience at a particular setting, they sometimes ended their response with phrases such as "that is why I do not work in (type of) pharmacy". Quotes that illustrates this are:

> "I was working at a chain and the pharmacist that (sic) was my preceptor often refused to fill prescriptions because he didn't want to bother either with that particular patient or call the doctor because the prescription was written incorrectly even when I offered to call the doctor myself. This experience made me never to want to work for a chain pharmacy."

> "While in my inpatient rotation I felt as if pharmacists were not appreciated. It also got the impression that we are viewed as an obstacle between the prescriber and the patient's care. This was one of the reasons I chose retail. I do not believe pharmacists are respected in institutional settings."

This shows that past experiences at certain worksites may influence future decision-making and is consistent with a finding in a study on the career choices of New England pharmacy students where internship and externship experience were found to influence practice settings preferences of pharmacy students [7].

In the present study, there were only a small number of responses where such a phrase was used or such a meaning conveyed. This makes it difficult to estimate the

extent of the influence of past experiences on future work setting decision-making. Also, the current study lacks longitudinal data to link respondents' descriptions of past experiences to their future work-setting choices. However, this could be an interesting point for further research to explore whether, how and why experiences at practice sites affect future work setting decision making. These findings could be relevant for pharmacy employers, pharmacy schools as well as professional pharmacy associations.

Effect of Other Factors on Site Evaluation

The thesis examined only the effect of work-related preferences and work setting on pharmacy worksite evaluation. This is because the thesis was interested in examining the phenomenon of 'inconsistent socialization' and subsequent worksite evaluation by the respondents' work-related preferences and by the pharmacy's work setting. However, it recognizes that other factors, which could also affect worksite evaluation, were not considered. These factors include the importance of salary for the respondents' job satisfaction and factors that influenced why the respondent entered the profession of pharmacy. These other factors could influence what the respondent considered important while working in a pharmacy and therefore could influence what they were sensitive to while evaluating their worksite.

The survey did evaluate the respondents' preferences for the above two factors. However, these factors were not included in the analysis since they were beyond the scope and objectives for this particular thesis. Future studies in this area could evaluate the importance of these factors in pharmacy site evaluation, pharmacist job satisfaction and pharmacist job choice.

Contribution to Literature

This thesis used content analysis to explore new pharmacy graduates' work experiences and to uncover factors that affected their worksite evaluation. As mentioned throughout this chapter, many of its findings are consistent with findings in quantitative literature. The thesis illustrates the value of using qualitative techniques and provides an alternate method to study new graduates work experiences. This particular section of the chapter will talk about the possible contributions this thesis makes to the literature and research in this area.

As mentioned earlier, the thesis has provided many avenues for future research studies in the area of new pharmacists' worksite evaluation, job preferences and job satisfaction. The details reported in this chapter regarding what new pharmacy graduates talked about when they described their experiences in a worksite could be used to create additional questions to better understand factors that affect their work experiences.

For example, an interesting finding of this thesis is that some pharmacy graduates were concerned about the environment in certain pharmacy sites not only because they were tired and stressed about the amount of work they did, but also because they were concerned that they did not have time to counsel patients and that they may have committed errors due to the fast pace of work at the site. When quantitative studies want attempt to describe the pharmacy environment that the pharmacist experiences everyday and relate it to their job satisfaction at a site, they often include questions about the volume of prescriptions dispensed, the availability of breaks, and the pace of work at the pharmacy. However, additional questions about the effect of this harried pace on the pharmacist could lead to the discovery of new relationships between the variables.

Additional questions could ask whether the pharmacist perceived the pace of work at the site as supporting or undermining patient consultation or about whether the pharmacist worried about the error rate at the site.

Similarly, studies on pharmacists' job activities have concluded that pharmacists would like to spend more time in consultation and in drug use management activities compared to technical tasks [18]. However, a variable that could be related to this is the pharmacists' need to attain a feeling of accomplishment or achievement at work and their need to make a difference in the quality of life of their patients. Thus, additional questions about whether the pharmacist felt making a difference was important to their work could be included.

These are two illustrations of how the findings of this thesis can be utilized in future research. Each theme category includes examples and descriptions of the words and phrases used by respondents while describing their experiences with factors internal and external to the pharmacy. The objective of this study was exploratory: to find out what new pharmacy graduates notice about the worksites. However, future studies could use these results to add new questions and study new relationships in order to better understand pharmacists' worksite appraisal.

Conclusion

The thesis illustrates the value of using qualitative techniques to study new pharmacy graduates' perceptions of 'good' and 'not-so-good' practice sites. It is important to study the graduates' experiences at these sites because they represent a

critical time in the development of the professional pharmacist and could affect perceptions about the norms of pharmacy practice and future practice setting preferences.

Patients and other providers generally proved to be assets for the pharmacy, giving new pharmacists the respect, recognition and appreciation they remembered and cherished. However, further education of both physicians and patients about the role of the pharmacist could lead to a greater utilization of pharmacists in patient care, which would eventually lead to greater job satisfaction for the pharmacist.

Many frustrations appeared to originate from within the practice site itself. A busy pharmacy environment and working continuously with the same people may have contributed to this. Creation of an environment supportive of the new pharmacist by the management and co-workers will aid the transition of the new pharmacist from student to practitioner. Further, it is beneficial for pharmacy schools to continue to teach students effective ways to deal with patients. However, devoting more time to teach students to deal with management and coworkers may also be warranted.

Overall, the new pharmacy graduates were concerned with appearing professional and wanted to utilize their pharmacy knowledge to help patients. However, these expectations were not always met at their worksites and some evidence was obtained about the existence of 'inconsistent socialization' in pharmacy practice. Hence, schools should work with all pharmacies, especially clerkship and internship sites, to ensure that the graduates get consistent messages from both the worksite and the school. Similarly, employing pharmacies should provide the resources and facilities needed to make pharmacy worksites consistent with professional norms, so that pharmacy graduates are able to fulfill their professional obligations, both to their patients and to themselves.

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Table 1:

Comparison of Respondent Demographics to Demographics of all US Pharmacy Graduates in 1999

	All U.S. Graduates (1999) [1]		Sample Respondents	
Gender	n	%	n	%
Male	2924	36.4	80	31.4%
Female	5130	63.7	175	68.6%
Education				
BS Pharmacy	3876	48.1	95	36.8%
PharmD	3265	40.5	133	51.4%
BS & PharmD	913	11.4	29	11.2%

[1] Source: Meyer, S.M. and Patton, J.M. (2000). The pharmacy student population: Applications received 1998-1999, Degrees conferred 1998-1999, Fall 1999 enrollments, *American Journal of Pharmaceutical Education*, Vol 64, Winter Supplement, pp. 74S – 84S.

Table 2:

Intercoder Reliabilities

	% Agreement	Kappa
Supervisor	95%	0.81
Coworkers	95%	0.74
Management	80%	0.50
Environment	95%	0.83
Nature of Work	80%	0.54
Patient	92%	0.57
Other Providers	95%	0.81
Contribution	86%	0.48
Miscellaneous	95%	0.55

Table 3:

Scale Reliability, Mean Score, Standard Deviation and Range for Work-Related Preferences

	Cronbach's Alpha	Mean	S.D.	Theoretical Range	Observed Range
Quality of Patient Relationships	0.81	22.39	5.28	3-30	3-30
Intensity of Work Demands	0.66	10.76	3.82	2-20	2-19
Desired Control in the Worksite	0.88	36.87	6.54	12-48	18-48

Table 4:

Frequency of Positive and Negative Practice Site Descriptions

(n =259 survey respondents)

		Respondent Described Positive Experience				Total	
		No		Yes			
		n	%	n	%	n	%
Respondent Described Negative Experience	**No**	87	33.6%	26	10%	113	43.6%
	Yes	20	7.7%	126	48.6%	146	56.4%
Total		107	41.3%	152	58.7%	259	100.0%

Table 5:

Frequency of Describing Global Assessment Versus Specific Incident

(n = 298 responses)

	Response Described Specific Incident or Global Assessment of Site				
	Specific Incident		Global Assessment		Total
	n	%	n	%	
Positive Description	18	11.9%	134	88.1%	152
Negative Description	10	6.8%	136	93.1%	146
Total	28	9.4%	270	90.6%	298

Table 6:

Themes And Their Examples

Theme 1: SUPERVISOR - person in a supervisory position
Negative description: " I worked under a supervisor that was more interested in quantity not quality (ex. Patient care). He was more interested in putting forth cutting costs (sic) no matter if it jeopardized patient care (quality of) or not. He was never complimentary of his employees (pharmacists) and was a 'control freak'. BAD EXPERIENCE"

Theme 2: COWORKERS - other pharmacy staff with whom the new pharmacist works
Positive description: "While working at the (name) community site, the two pharmacists would take me into the OTC aisle and quiz me quite often. They really helped me in areas where school fell behind."

Theme 3: MANAGEMENT - policies and philosophies of the pharmacy site/company
Positive description: "The overall way the pharmacist was treated by the company (with respect). Did not treat the pharmacist as another 'worker'. Treated pharmacist as equal. 'Higher' up people have pharmacy backgrounds."

Theme 4: ENVIRONMENT - spatial and temporal aspects of work
Negative description: "Working for a supermarket pharmacy. The relentless phone calls, never-ending lines of customers, and no time to counsel any of them. It was a daily event."

Theme 5: NATURE OF WORK - tasks performed or knowledge used
Negative description: "One rotation site only allowed us to data entry of patient's information for a study. I did not feel I was using my knowledge as a pharmacist to do projects like this."

Theme 6: PATIENT(S) – patient(s) at the pharmacy site
Positive description: "A patient thanked me for 'taking care of (her)' and wished me luck in my professional career. She said I'd make an excellent pharmacist."

Theme 7: OTHER PROVIDERS - other health professionals such as doctors or nurses
Positive description: "In my experience in an institutional setting, the clinical pharmacists were respected by the physicians. They were looked upon as a resource for information and their suggestions were often considered. There was a good working relationship between the health professions there."

Theme 8: CONTRIBUTION –making a difference, feeling accomplishment or having 'say'
Positive description: "Working at an HIV clinic and counseling patients made me feel that I was making a difference not only in the lives of these patients, but also establishing the important role of the pharmacist."

Theme 9: MISCELLANEOUS - themes that do not fit into the above categories
Negative description: "I was scared to learn or ask questions in fear of being perceived as ignorant or unknowledgeable."

Table 7:

Frequencies of Themes

(n = 475 themes)

	Total	Positive	Negative	Percent Positive
Nature of Work	134	74	60	55.2%
Supervisor	36	14	22	38.8%
Coworkers	36	15	21	41.6%
Management	76	31	45	40.7%
Environment	48	15	33	31.2%
Patient	33	19	14	57.5%
Other Providers	43	29	14	67.4%
Contribution	59	51	8	86.4%
Miscellaneous	10	3	7	30.0%
Total	475	251	224	52.8%

Table 8:

Frequencies of Different Pharmacy Work Settings

(n = 291 responses)

	Total	Positive	Negative	Percent Positive
Retail/Community	87	26	61	29.9%
Hospital/Clinic	94	62	32	66.0%
Other	12	6	6	50.0%
Unknown	98	54	44	55.1%
Total	291	148	143	50.1%

Table 9: Presence Or Absence Of Positive And Negative Responses By Type Of Pharmacy Setting For Selected Themes

		Retail	Hospital	Unknown	Significance (Chi-Square)
Nature of Work					
Positive	Present	6	36	26	0.011*
	Absent	20	26	28	
Negative	Present	27	16	10	0.027*
	Absent	34	16	34	
Contribution					
Positive	Present	5	27	14	0.037*
	Absent	21	35	40	
Negative	Present	5	2	0	0.16
	Absent	56	30	44	
Patient					
Positive	Present	8	3	8	0.005**
	Absent	18	59	46	
Negative	Present	9	2	2	0.16
	Absent	52	30	42	
Other Providers					
Positive	Present	1	19	7	0.005**
	Absent	25	43	47	
Negative	Present	2	7	3	0.009**
	Absent	59	25	41	
Coworkers					
Positive	Present	4	1	9	0.015*
	Absent	22	61	45	
Negative	Present	2	3	15	0.0001**
	Absent	59	29	29	

Table 10: Presence Or Absence Of Positive And Negative Responses By Retail or Hospital/Clinic Pharmacy For Selected Themes

		Retail	Hospital	Significance (Fisher's Exact)	Significance (Chi-Square)
Nature of Work					
Positive	Present	6	36	0.005**	0.003**
	Absent	20	26		
Negative	Present	27	16	0.66	0.59
	Absent	34	16		
Contribution					
Positive	Present	5	27	0.05*	0.03*
	Absent	21	35		
Negative	Present	5	2	1.00	0.73
	Absent	56	30		
Patient					
Positive	Present	8	3	0.002**	0.001**
	Absent	18	59		
Negative	Present	9	2	0.32	0.22
	Absent	52	30		
Other Providers					
Positive	Present	1	19	0.005**	0.006**
	Absent	25	43		
Negative	Present	2	7	0.007**	0.004**
	Absent	59	25		
Coworkers					
Positive	Present	4	1	0.025*	0.011*
	Absent	22	61		
Negative	Present	2	3	0.33	0.21
	Absent	59	29		

Table 11: Work-related Preferences By The Presence Or Absence Of Reponses For Selected Themes

	Patient Relationships		Work Demands		Desired Control	
	Mean (s.d.)	p-value	Mean (s.d.)	p-value	Mean (s.d.)	p-value
Nature of Work						
Positive	22.0 (5.42) 23.1 (5.16)	0.22	11.1 (3.65) 10.8 (3.95)	0.60	37.1 (6.62) 37.8 (6.35)	0.47
Negative	22.8 (4.72) 22.0 (5.90)	0.40	10.5 (3.53) 10.7 (4.21)	0.70	37.7 (5.95) 37.5 (6.69)	0.87
Both	22.3 (5.31) 22.1 (5.98)	0.81	10.4 (3.63) 11.3 (4.32)	0.21	37.5 (6.27) 37.8 (7.09)	0.77
Contribution						
Positive	21.1 (6.09) 23.3 (4.70)	0.12	10.9 (4.33) 10.9 (3.52)	0.99	38.1 (6.77) 37.1 (6.33)	0.38
Negative	24.9 (3.98) 22.2 (5.49)	0.21	11.1 (4.50) 10.6 (3.92)	0.73	38.3 (5.96) 37.6 (6.42)	0.78
Both	21.1 (6.63) 22.8 (4.79)	0.10	11.1 (4.46) 10.5 (3.56)	0.45	38.3 (6.34) 37.2 (6.66)	0.39
Patient						
Positive	23.6 (4.62) 22.4 (5.39)	0.35	9.9 (4.66) 11.1 (3.65)	0.19	37.6 (8.25) 37.5 (6.21)	0.94
Negative	20.5 (6.94) 22.5 (5.26)	0.19	8.4 (4.98) 10.9 (3.75)	0.09	37.9 (7.55) 37.6 (6.28)	0.85
Both	22.3 (6.23) 22.2 (5.39)	0.94	**8.9 (4.57)** **11.1 (3.60)**	**0.03**	39.0 (7.90) 37.3 (6.15)	0.24
Other Providers						
Positive	22.1 (5.41) 22.7 (5.29)	0.58	11.1 (3.59) 10.9 (3.86)	0.77	**35.1 (7.45)** **38.0 (6.15)**	**0.04**
Negative	18.4 (8.01) 22.7 (4.96)	0.07	10.6 (3.94) 10.7 (3.95)	0.94	40.3 (6.27) 37.4 (6.36)	0.13
Both	21.2 (6.52) 22.5 (5.21)	0.27	10.9 (3.42) 10.6 (4.04)	0.78	36.6 (7.43) 37.9 (6.29)	0.35
Coworkers						
Positive	22.1 (5.94) 22.6 (5.27)	0.74	10.2 (4.28) 11.0 (3.75)	0.43	37.7 (7.08) 37.4 (6.43)	0.90
Negative	23.2 (4.36) 22.2 (5.61)	0.41	10.6 (4.19) 10.7 (3.91)	0.91	37.0 (6.42) 37.7 (6.40)	0.62
Both	22.1 (5.26) 22.3 (5.63)	0.86	10.5 (4.19) 10.7 (3.84)	0.76	36.9 (6.74) 37.8 (6.52)	0.56

Appendix 1:

SURVEY QUESTIONS FOR CONTENT ANALYSIS

Q1. Think back over the time that you spent working (for pay or for academic credit) in pharmacy practice sites. Have you experienced any specific situation(s) or event(s) that, upon reflection, made you feel that the practice site **was a particularly good** place for you to work?

YES NO

If YES, please describe the situation or event that you recall most vividly and what effect(s) it had on you. (Please do not identify any persons or places by their actual names.)

Q2. Think back over the time that you spent working (for pay or for academic credit) in pharmacy practice sites. Have you experienced any specific situation(s) or event(s) that, upon reflection, made you feel that the practice site **was not a good** place for you to work?

YES NO

If YES, please describe the situation or event that you recall most vividly and what effect(s) it had on you. (Please do not identify any persons or places by their actual names.)

Appendix 2:

POSITIVE AND NEGATIVE EXPERIENCES CODING INSTRUCTIONS

Read the response carefully and completely. Think about what the overall response is about Code the responses in the Coding Form according to the following instructions.

Respondent ID: Fill in the respondent ID number, as indicated on the survey

Did the student talk about a specific incident or a general impression?
Write 'Specific' if the response refers to a specific incident or 'General' if it refers to a general impression.

Theme Categories

1. **Supervisor**: Check box to indicate whether the response is about a person in a supervisory position. A response can be coded to contain this category if the response contains words about a specific person such as the:
   - boss
   - supervisor
   - preceptor
   - pharmacy manager
   - pharmacy owner
   - pharmacy director

2. **Coworkers**: Check box to indicate that the response is about other people in the pharmacy with whom the student pharmacist works (primary work group). A response can be coded to contain this category if the response contains words about:
   - coworker(s)
   - technician(s)
   - intern(s)
   - staff (excludes medical or nursing staff)
   - staff pharmacist(s)
   - clerk(s)
   - student pharmacist(s)

3. **Pharmacy/Management**: Check box to indicate that the response is about the policies and philosophies of the pharmacy site. A response can be coded to contain this category if the response contains words about:
   - The entire pharmacy,
   - Pharmacy management (not specific person like pharmacy manger),
   - Organization, site, pharmacy program
   - Philosophy of site,
   - Focus of the site
   - Policies at site
   - Resources at the site – with respect to staffing, money, etc.
   - Technology
   - Training

4. **Environment**: Check box to indicate that the response is about the environment at the pharmacy site. A response can be coded to contain this category if the response contains words about:
   - Spatial and temporal aspects of work
   - Work demands at site
   - Physical arrangement of site
   - Time available at site

5. **Nature of work**: Check box to indicate that the response is about the work the respondent performs at the pharmacy site. A response can be coded to contain this category if the response contains words about
   - Tasks completed or knowledge utilized for tasks
   - Actual work activities and applications
   - Amount of patient interaction

6. **Patient**: Check box to indicate that the response is about the patients at the pharmacy site. A response can be coded to contain this category if the response contains words about:
   - Patient appreciation
   - Relationships with patients
   - Type of patient clientele served by pharmacy

7. **Other Providers**: Check box to indicate that the response is about other health care professionals. A response can be coded to contain this category if the response contains words about:
   - Other providers like doctors, medical residents, nurses, nurse practitioners etc
   - Individual or groups of other providers (Example the healthcare team)
   - Implied or specific mentions of other providers
   - Interaction, contact with other provider

8. **Miscellaneous**: Check box to indicate that response cannot be classified into any of the above categories (1-7).

9. **Sense of accomplishment, sense of contribution:** Check box to indicate that the response is about sense of accomplishment or sense of contribution. A response can be coded to contain this category if the response contains words about:
   - Being involved ,
   - Being part of decision making
   - Making a difference
   - Having 'say' in a way that it makes a difference
   - 'affecting' an outcome (example affecting patient outcomes)
   - 'you matter'

How many theme categories appear? Write the number of theme categories that appear in the response.

Type of Pharmacy Work Setting: Identify the pharmacy setting of the response according to the following coding scheme:

1- Retail (Response describes an experience in a retail/community pharmacy)
2- Hospital/clinic (Response describes an experience in a hospital/clinic pharmacy)
3- Unknown (Not enough information to ascertain whether the pharmacy was in the retail or in the hospital setting)
4- Miscellaneous (Response describes an experience in a pharmacy other than a retail/community pharmacy or a hospital/clinic pharmacy)

Are there multiple theme categories? Write "Single" if the response addresses only a single theme category; write "Multiple" if it has multiple theme categories.

Single theme category: The respondent talks about only one theme/category.

Multiple theme categories: The respondent talks about more than one theme category.

This can happen in two ways:

1. Different theme categories appear as separate sentences.
2. Multiple theme categories appear intertwined and are embedded in the response. For these, break the response down into phrases to identify what theme category each phrase represents.

Overall form of response: Identify the overall form of the response according to the following coding scheme:

1- Response contains only one theme category.
2- Response contains more than one theme category; these appear as separate sentences.
3- Response contains more than one theme category; these are intertwined, embedded in the response; themes appear as separate phrases or words.

Appendix 3:

POSITIVE AND NEGATIVE EXPERIENCES CODING SHEET

Experience: POSITIVE NEGATIVE Coder: _____ Page ____ of ____

	1	2	3	4	5
Respondent ID					
Specific incident?					
Theme category: 1. Supervisor					
Theme category: 2. Coworkers					
Theme category: 3. Management					
Theme category: 4. Environment					
Theme category: 5. Nature of work					
Theme category: 6. Patient					
Theme category: 7. Other providers					
Theme category: 8. Miscellaneous					
Theme category 9: Accomplish/contribute					
Number of theme categories					
Type of Pharmacy Setting					
Multiple theme categories?					
Overall form of response					

Appendix 4:

MEASURES

Quality of Patient Relationships

a. *Counseling*

How much time do you want to spend dealing with patients and other members of the public?

1= Prefer to spend *none* of my time (doing) counseling
10 =Prefer to spend *most* of my time (doing) counseling

b. *Continuity of Relationships*

To what degree do you want to have ongoing or long-term contact with patients or consumers?

1= Want *no* ongoing/ long-term relationships at all
10 = Want *most* relationships to be ongoing/ long-term

c. *Helping people*

Would you prefer your work directly or indirectly add to the well-being of individuals or society as a whole?

1= Impact of my work on people's well-being can be *indirect*
10 = Want to *directly* add to people's well-being

Intensity of Work Demands

g. *Multiple Task Handling*

Do you prefer work that allows you to concentrate on and complete one task at a time or work that involves handling interruptions and dealing with several tasks/projects at the same time?

1= Prefer *many* activities at once
10 =Prefer *one* activity at a time

m. *Pressure*

How much pressure (dealing with crises, quickly interpreting medical/technical information) do you prefer in your work?

1= Can accept/ prefer *high- pressure* environment
10= Prefer *minimal-pressure* environment

Desired Control in Workplace Decision-making

12. *How much "say" do you think pharmacists **should** have in the following areas of the job?*

a. The way work is done
b. Keeping track of quality
c. How fast work is done
d. How much pharmacy staff should do in a day
e. Who should do what job in your pharmacy
f. When work day begins and ends
g. Who should be fired if they do a bad job or don't come to work
h. Who should be hired to work in your pharmacy
i. Handling complaints or grievances
j. Who gets promoted
k. The use of new technology
l. The selection of your supervisor

Reponses:
0 = None 1 = Little 2= Some 3= Quite a Bit 4 = Very Much