

BASELINE JOB SATISFACTION AND STRESS AMONG PHARMACISTS AND PHARMACY TECHNICIANS PARTICIPATING IN THE FLEETWOOD PHASE III STUDY

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Objective: To provide baseline levels of job satisfaction and stress among members of the long-term care pharmacy team participating in the Fleetwood Phase III evaluation.

Design: Cross-sectional design; long-term care pharmacy provider in North Carolina (the implementation site of the large-scale Fleetwood Phase III study).

Participants: All current pharmacy employees as of May/June 2002.

Interventions: None.

Main Outcome Measure(s): Health Professional Stress Inventory and job satisfaction.

Results: Ninety-four percent (16/17) of consultant pharmacists were satisfied with their job, with 89% reporting they would definitely choose to be a pharmacist again. Seventy-five percent both of dispensing pharmacists and pharmacy technicians reported overall job satisfaction. Forty-one reported that they would not choose to be a pharmacist (pharmacy technician) again. The most frequently reported sources of stress among the dispensing pharmacists and pharmacy technicians were conflicts with nonwork obligations (i.e., family, personal life) and the ability to perform duties with short staffing. In addition, inadequate pay and few opportunities for job advancement were often/frequent sources of stress among pharmacy technicians. More than one third of dispensing pharmacists also reported stress frequently because of fears of mistakes in patient treatment.

Conclusion: Overall, consultants are very satisfied with their positions, although dispensing pharmacists and pharmacy technicians are less satisfied with their work. The reasons may be because of the different nature of each job, as well as staffing shortages. The extent to which the Fleetwood Model can improve job satisfaction and impact on stress will be evaluated once we resurvey the pharmacy team after the intervention period of the Fleetwood Phase III study.

Key Words: Adverse drug events, Fleetwood Phase III Study, Geriatrics, Job-related satisfaction, Long-term care, Work-related stress.

Abbreviations: HPSI = Health Profession Stress Inventory.

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INTRODUCTION

Pharmacist job turnover in the United States averages 11% annually and has remained fairly steady in the last 20 years.¹ Yet, the percentage of pharmacists ranking stress as the reason for leaving has increased, with a larger percentage of pharmacists in institutional settings ranking stress as a reason for leaving relative to independent pharmacies.¹ Stress has been reported in the pharmacy profession as a whole,² yet no studies have specifically evaluated stress in the long-term care pharmacy setting. Researchers have argued that interprofessional differences must be recognized when estimating stress at work and considering the management of job stress in the health care system.³ In the context of long-term care pharmacy, this would refer to pharmacists and technicians. Additionally, we also believe that intraprofessional differences should be borne in mind when observing the long-term care setting where pharmacists may assume a dispensing or consulting role.

Theoretically, stress may be of less concern in the long-term care setting than for dispensing community pharmacists because long-term care pharmacists do not encounter the public, per se. However, the pressure on consultant pharmacists to ensure nursing home facilities meet regulatory standards is high, which may account for a greater stress for those pharmacists. To the best of our knowledge, no studies have evaluated stress among pharmacy technicians in this setting. Therefore, the purpose of this study is to describe job satisfaction and stress among pharmacy employees with different roles within the long-term care setting. While stress and job satisfaction have been extensively reported in other health care professionals and pharmacists practicing in other settings,² this study is the first to provide such informa-

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tion among all members of the long-term care pharmacy team and to provide such information by role of the employee.

We performed the current study in the context of a large-scale demonstration project evaluating the effectiveness of a new model for long-term care pharmacy—the Fleetwood Model—which incorporates prospective review, direct communication with the prescriber, and formalized pharmaceutical care planning in patients at highest risk for medication-related problems (the Fleetwood Phase III study).⁴ The American Society of Consultant Pharmacists Research and Education Foundation developed this model of care. One of the specific aims of the Fleetwood Phase III study is to quantify the impact of the Fleetwood Model on the satisfaction and stress of members of the pharmaceutical care team. Qualitative assessments of pharmacists participating in the earlier Fleetwood (Phase II) feasibility study⁵ revealed increased job satisfaction with the implementation of the new model for long-term care pharmacy. We feared, however, that additional demands placed on staff by the Phase III study would increase levels of stress. Therefore, we evaluated baseline levels of job satisfaction and stress among members of the long-term care pharmacy team participating in the Fleetwood Phase III evaluation.

METHODS

The Brown University Institutional Review Board approved the protocol for this study. The Fleetwood Phase III study is based at two long-term care pharmacies in North Carolina. In addition to practical/logistical reasons, this setting was selected for the Fleetwood study because its management team had a strong commitment to the project as well as entrepreneurial spirit. The sites service approximately 12,000 residents in about 100 nursing facilities, assisted-living facilities, and group homes. Ninety percent

of the facilities are nursing homes. The workload of consultant pharmacists is approximately 850 residents per month.

There are three distinct roles of employees providing pharmaceutical care in long-term care: dispensing pharmacists, consultant pharmacists, and pharmacy technicians. Dispensing pharmacists are pharmacists whose primary responsibility includes dispensing of the medications within the long-term care pharmacy. These pharmacists provide the “front-line” support in pharmacy services since the consultant pharmacists typically visit each nursing home only once per month, as required by law. Consultant pharmacists are primarily in nursing homes performing the regulated drug regimen review. Pharmacy technicians provide support for dispensing of medications in the long-term care pharmacy.

The questionnaire administered to the members of the pharmacy team included four sections containing the following:

- Sociodemographic items
- Items relating to job satisfaction
- The Health Profession Stress Inventory (HPSI)²
- A communication effectiveness instrument

Respondents also were asked whether they would choose the same profession again. The HPSI questionnaire, developed by Wolfgang et al.,² asks participants to rate 30 situations on a five-point scale (responses ranging from 1 = Never stressed to 5 = Frequently stressed). The 30 situations represent stressful situations in the following domains: patient responsibility, job conflicts, professional uncertainty, and professional recognition. The internal consistency and construct validity of the HPSI instrument have been shown.⁷

Cognitive interviews were performed to evaluate wording of the questions, and revisions were made if necessary. During this

TABLE 1. SOCIODEMOGRAPHIC INFORMATION BY ROLE OF EMPLOYEE IN THE PHARMACY* (BY PERCENTAGE)

	Dispensing Pharmacist (n = 17)	Consultant Pharmacist (n = 18)	Pharmacy Technician (n = 47)
Characteristics			
Women	53	72	96
Caucasian or white	94	100	77
Education			
• Less than high school	N/A	N/A	17
• High school or GED	N/A	N/A	38
• Some college	N/A	N/A	40
• Bachelor's degree	47	11	4
• Postgraduate degree	53	89	0
Years worked for employer (mean \pm standard deviation)	3.8 (\pm 3.9)	4.5 (\pm 2.9)	Not asked
Rewards at work:			
• How often are you rewarded for the quality of work you do?	12	33	19
• How often are you rewarded for the quantity of work that you do?	18	33	19
Feels most or all of the time			
Feels probably or definitely "no"			
If planning today, would you definitely choose to become a pharmacist (pharmacy technician)?	41	11	41

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Abbreviation: N/A = Not Applicable

process, it became clear that some of the questions were confusing within the context of long-term care pharmacy, particularly with regard to the pharmacy technicians. This required removal of some questions that were not applicable and rewording of others for clarity (see Appendix). The amended instrument was piloted in one to two people per employee-type in the long-term pharmacy team. We completed the surveying of staff

before any interventions (including education efforts and intense training) associated with the Fleetwood Project were made.

The pharmacy management team provided a list of the names and addresses of all consultant pharmacists, dispensing pharmacists, and pharmacy technicians employed at the study sites in May 2002. We mailed each employee a survey instrument with a stamped return envelope as well as a cover

letter explaining the purpose of the study. Each initial mailing was followed one to two weeks later by a reminder postcard. Four to six weeks after the initial mailing, a second questionnaire, followed by a reminder postcard, was mailed one to two weeks later to all nonresponders. To increase response rates, we provided a \$15 incentive for each completed survey instrument. All questionnaires were anonymous once the incentive checks were mailed to respondents.

All analyses were stratified by the pharmacist's role. All data are shown as percentages.

RESULTS

Surveys instruments were sent to 18 consultant and 18 dispensing pharmacists, respectively, and 60 technicians. All analyses were stratified by employee's roles. Sociodemographic characteristics of the respondents are summarized in Table 1. We found that dispensing pharmacists and technicians did not feel rewarded most or all of the time for the quality and quantity of work undertaken. This was reflected further in their responses on whether they would choose the same profession again (41% responded probably or definitely no). Consultant pharmacists appeared more positive in their perceptions of being rewarded and of their career choice. These findings were substantiated by respondents' job satisfaction ratings (Table 2). More than 90% of consultant pharmacists were satisfied with their current job most or all of the time compared with 76% and 74% of dispensing pharmacists and technicians, respectively.

Table 3 shows the proportion reporting feeling stressed most or all of the time with respect to issues relating to patient-care responsibility and job conflicts. Typically, dispensing and consulting pharmacists did not feel stress relating to patient responsibility. Twelve percent of dispensing pharmacists felt stress because they were ultimately

responsible for patient outcomes, whereas 22% of consultant pharmacists did. Thirty-five percent of dispensing pharmacists and 22% of consultant pharmacists were often or frequently stressed fearing that a mistake would be made in the treatment of a patient. Consultant pharmacists (17%) were the least likely to report that job conflicts with family responsibility/personal life as an often or frequent source of stress as compared with 47% among dispensing pharmacists and 28% among as pharmacy technicians. Consultant pharmacists were more likely to report being often or frequently stressed regarding disagreements with other health professionals over the care of a patient or conflicts with administrators/supervisors.

Table 4 shows that dispensing pharmacists were often or frequently stressed owing to interruptions by phone calls or people (76%). Both pharmacy technicians (45%) and dispensing pharmacists (53%) were often/frequently stressed by being short-staffed. More than half of the dispensing pharmacists and more than one-third of the consultant pharmacists and pharmacy technicians often or frequently felt stressed that work could not be done adequately because there was so much work to do. More than one third of pharmacy technicians are often/frequently stressed because of lack of job advancement opportunities, and 60% were often/frequently stressed because of inadequate pay. Regardless of their role in the pharmacy, about 83% of all respondents reported that the organization was very effective in providing needed services to nursing home patients.

DISCUSSION

This is the first study to examine job satisfaction and stress in members of the long-term care pharmacy team. Although the sample size is small, our findings reflect what others have reported in other sectors of pharmacy.²

TABLE 2. JOB SATISFACTION BY ROLE OF EMPLOYEE IN THE PHARMACY*

Questions	Dispensing Pharmacist (n = 17)	Consultant Pharmacist (n = 18)	Pharmacy Technician** (n = 47)
Percentage "feels most or all of the time"			
All things considered, how often are you satisfied with your job?	76	94	74
How often do you think the idea of spending the remainder of your working life in a job like your current one is depressing?	6	0	13
How often do you leave work with a "bad" feeling, a feeling that you are doing something you do not enjoy?	6	0	8
How often do you get so wrapped up (interested) in your work that you lose track of time?	18	22	8

* Dispensing pharmacists are pharmacists whose primary responsibility includes dispensing of the medications within the long-term care pharmacy. Consultant pharmacists are primarily in nursing homes performing the regulated drug regimen review. Pharmacy technicians provide support for dispensing of medications in the long-term care pharmacy.

** See Appendix for wording changes on some questions.

Based on a national probability sample (with predominantly community-based pharmacists), Wolfgang et al.² reported that 45% of the pharmacists would not choose the same profession again; this is close to the figure relating to dispensing pharmacists (and technicians) in this sample.

There was a clear differential between the views of the consultant pharmacists compared with the dispensing pharmacists, with pharmacy technicians reflecting the views of the latter. This is probably indicative of the common work experience of dispensing pharmacists and technicians. Their work patterns center around dispensing, which may be perceived as a routine and laborious

task. Although this supply element is essential in the delivery of any pharmaceutical service, dispensing pharmacists may feel unappreciated and feel that their skills are not being optimized in the care of patients. Cox and Fitzpatrick³ reported that there was a significant positive relationship between job satisfaction and perceived utilization of skills among pharmacists practicing in institutional and ambulatory care settings in Arizona. Similarly, pharmacy technicians may feel frustrated in their role, which may provide little opportunity for career development and advancement.

Sources of stress noted by dispensing pharmacists (but not consultant pharmacists)

TABLE 3. STRESS AT WORK RELATING TO PATIENT CARE RESPONSIBILITY AND JOB CONFLICTS BY ROLE OF EMPLOYEE IN THE PHARMACY*

Questions	Dispensing Pharmacist (n = 17)	Consultant Pharmacist (n = 18)	Pharmacy Technician** (n = 47)
	Percentage "feels most or all of the time"		
Patient care responsibility:			
How often do you feel stressed because you are ultimately responsible for patient outcomes?	12	22	N/A
How often do you feel stressed because you are uncertain about what to tell a patient or family about the patient's condition and/or treatment?	6	0	N/A
How often do you feel stressed because you care for the emotional needs of patients?	0	0	N/A
How often do you feel stressed because you allow personal feelings/emotions to interfere with the care of patients?	0	6	N/A
How often do you feel stressed dealing with "difficult" (clinically challenging) patients?	12	6	N/A
How often does being inadequately prepared to meet the needs of patients make you stressed?	6	0	N/A
How often does possessing inadequate information regarding a patient's condition make you stressed?	18	6	N/A
How often does caring for terminally ill patients make you stressed?	6	17	15
How often do you feel stressed fearing that a mistake will be made in the treatment of a patient?	35	22	10
Job conflicts:			
How often do you feel stressed because you experience conflicts with supervisors and/or administrators?	12	33	8
How often do you feel stressed because you disagree with other health professionals concerning the treatment of a patient?	6	22	N/A
How often do you feel stressed because you experience conflicts with coworkers?	12	0	13
How often do you feel stressed because you have job difficulties that conflict with your family responsibilities?	47	17	28
How often do you feel stressed supervising the performance of coworkers?	12	0	N/A
How often does having nonhealth professionals determine the way you must practice your profession make you stressed?	18	23	11

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Consultant pharmacists are primarily in nursing homes performing the regulated drug regimen review.

Pharmacy technicians provide support for dispensing of medications in the long-term care pharmacy.

** See Appendix for wording changes on some questions.

Abbreviation: N/A = Not Applicable.

TABLE 4. STRESS AT WORK RELATING TO JOB UNCERTAINTY AND PROFESSIONAL RECOGNITION BY ROLE OF EMPLOYEE IN THE PHARMACY*

Questions	Dispensing Pharmacist (n = 17)	Consultant Pharmacist (n = 18)	Pharmacy Technician** (n = 47)
	Percentage "feels most or all of the time"		
Professional uncertainty:			
How often do you feel stressed because you have so much work to do that everything cannot be done well?	53	39	36
How often do you feel stressed because you do not have the opportunity to share feelings and experiences with colleagues?	0	6	8
How often do you feel stressed keeping up with new developments to maintain professional competence?	18	22	11
How often does not having enough staff to provide necessary services adequately make you stressed?	53	22	45
How often do you feel stressed being interrupted by phone calls or people while performing job duties?	76	6	8
How often does not being challenged at your work make you stressed?	6	17	4
Professional recognition:			
How often do you feel stressed because you do not receive the respect or recognition that you deserve from the general public?	12	6	N/A
How often do you feel stressed because opportunities for advancement on the job are poor?	12	17	34
How often do you feel stressed trying to meet society's expectations for high-quality medical care?	12	6	N/A
How often does not being recognized or accepted as a true health professional by other health professionals make you stressed?	6	17	N/A
How often does not receiving adequate feedback on your job performance make you stressed?	18	11	24
How often does not knowing what type of job performance is expected make you stressed?	0	6	8
How often does not being allowed to participate in making decisions about your job make you stressed?	18	6	17
How often does feeling that you are inadequately paid as a health professional make you stressed?	18	17	60
How often does not being able to use your abilities to the fullest extent on the job cause you stress?	6	17	15

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Consultant pharmacists are primarily in nursing homes performing the regulated drug regimen review.

Pharmacy technicians provide support for dispensing of medications in the long-term care pharmacy.

** See Appendix for wording changes on some questions.

Abbreviation: N/A = Not Applicable.

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were similar to those reported by others.² Dispensing pharmacists found situations that dealt with interruptions, inadequate staffing levels, excessive workload, and conflicts with family responsibilities to be the most stressful. These findings appear to reflect the demands of a dispensing role versus a consultant role. These factors have been noted to influence job satisfaction⁸ and may be related to higher turnover.⁹ In addition, such stressors may place pharmacists at higher risk for substance abuse potential.¹⁰

While some researchers urge pharmacists to explore strategies to manage stress in their lives,¹¹ others suggest systems approaches.¹² In a health maintenance organization, pharmacists believed solutions to burn-out included more variety in the job and increased responsibility as well as decreased workloads.¹³ Kershaw et al.¹⁴ successfully showed that a team work group design for pharmacy technicians in a hospital setting integrated clinical and distributive pharmacy services. This design expanded clinical roles, reduced stress, and enhanced staff satisfaction. Strozyk and Underwood¹⁵ found that provision of a structured career path for hospital pharmacy technicians was associated with lower technician turnover, expansion of technicians' job responsibilities, and an increase in pharmacists' time for clinical activity. Spooner et al.¹⁶ described a hospital pharmacy program that increased technician job satisfaction and improved quality of patient care. The authors attributed these

experiences to the increased scope of pharmacy service in providing patient care. If such innovations are amenable to the long-term care pharmacy setting, these initiatives may also have benefits for pharmacists as a whole, allowing them to use time more effectively in patient-focused services.

Our data should be interpreted with some caution. Although the survey instrument reported on has good psychometric properties,⁷ it was necessary to revise some of the wording. Owing to the sample size, we were not able to perform such detailed analyses to confirm these properties. As such, and considering the small sample sizes, these data are meant for descriptive purposes only and provide a means for generation of hypotheses.

These data are suggestive when considering the challenges of implementing the Fleetwood Model of care into the pharmacy. This model aims to expand the role of the pharmacists in the delivery of care (including dispensing and consulting pharmacists). Data from our survey reveal that many dispensing pharmacists feel underutilized. As such, expanding their role may increase their job satisfaction. We intend on repeating the survey at the end of the intervention phase of the Fleetwood Phase III study. Dispensing pharmacists are the most likely to report stress as a result of too much work and being short staffed, and they are the least likely to be satisfied with their jobs. For the Fleetwood Model of care to be effective, such barriers must be overcome.