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Rewards and Advancements for Clinical Pharmacists

American College of Clinical Pharmacy

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ABSTRACT

The American College of Clinical Pharmacy charged the Clinical Practice Affairs Committee to review and update the College's 1995 white paper, "Rewards and Advancements for Clinical Pharmacy Practitioners." Because of the limited data on the present state of rewards and advancements for clinical pharmacists, an online survey of front-line clinical pharmacists and pharmacy managers was conducted (1126 total respondents, 14% response rate). The resulting white paper discusses motivators and existing systems of rewards and advancements for clinical pharmacists, as well as perceived barriers to implementation of these systems. Clinical pharmacists reported work-life balance, a challenging position, and opportunities for professional advancement as the most important factors for career success. At the time of the survey, financial rewards appeared not to be a major motivator for clinical pharmacists. Managers underestimated the importance that clinical pharmacists place on work-life balance and favorable work schedules. Although almost two-thirds of the clinical pharmacists surveyed had not developed a professional development plan, 84% indicated an interest in career planning. Both clinical pharmacists and managers rated the lack of a clear reward and advancement structure as the most important barrier to effective systems of rewards and advancements. Pharmacy managers and administrators are encouraged to develop effective systems of rewards and advancements for clinical pharmacists that positively impact patient care and the institution's mission; these systems will benefit the clinical pharmacist, health care institution, and patient.

INTRODUCTION/BACKGROUND

The concept of pharmaceutical care as a practice model is more than a decade and a half old.[1] Despite broad acceptance of the concept, full implementation beyond the traditional pharmacist role has been challenging. As the profession of pharmacy evolves and the roles of pharmacists expand, the need for well-trained clinical pharmacists continues to increase. Clinical pharmacists provide pharmaceutical care to optimize drug therapy and promote health, wellness, and disease prevention.[2] Clinical pharmacists are in high demand because of the expanding volume and complexity of drug therapy, rising drug costs, and need for leadership to ensure the safe use of medications.[3,4] The recruitment of clinical pharmacists from patient care to other roles and other factors contribute to the current pharmacist shortage, prompting employers to offer higher salaries and large sign-on bonuses. Deterioration of the pharmacist's work environment because of heavy workload and increased stress, combined with additional employment opportunities and increased financial compensation, has resulted in high pharmacist job turnover.[5] From a survey of 1600 licensed pharmacists in four states, Mott reported that the average turnover rate per year between 1983 and 1997 was 11%.[5] Stress was the most common reason for leaving a job, with monetary compensation less of a factor. In the current environment, employers must develop creative strategies to assist in recruiting and retaining employees. If monetary rewards provide less incentive than previously thought, how can employers reward and retain their employees to reduce the revolving-door effect?

Pharmacist shortages at all levels have alerted employers to issues related to employee recruitment and retention, job satisfaction, and continuing professional development (CPD).[6,7] Limited resources, salary compression (a narrowing of the gap between the highest- and lowest-paid staff, despite wide variance in tenure, experience, and level of responsibility), and

competition from retail pharmacy and the pharmaceutical industry are just a few of the challenges employers face in recruiting and retaining well-qualified pharmacy clinicians. Perceived lack of recognition, limited opportunities for clinical practice and professional advancement, and discrepant salaries are routinely cited as reasons for poor job satisfaction and lack of motivation.[6,7] With shrinking health care resources, opportunities to reward clinical pharmacists financially are dwindling. Furthermore, as stated previously, many clinical pharmacists are not motivated by financial rewards. This cultural shift highlights the importance of other forms of rewards. Pharmacy administrators must find innovative alternatives to recognize excellence and reward clinical pharmacists so that they can retain them in high-level clinical practice roles. The need for lifelong learning and professional development remains an essential aspect of the pharmacy profession. Creating an environment that promotes and rewards self-development and professional growth is vital to both employees and employers.

The purpose of this white paper was to describe motivators and existing systems of rewards and advancements for clinical pharmacists, as well as to present perceived barriers and challenges to implementation of these systems. White papers serve as a review of the current state of a situation. Given the paucity of data on the present state of rewards and advancements for clinical pharmacists, it was necessary to conduct a survey to accomplish the goal of this white paper. Perceptions of front-line clinical pharmacists, as well as pharmacy managers/administrators, were assessed with an online survey of members of the American College of Clinical Pharmacy (ACCP) and a group of pharmacy managers/administrators. Although some aspects of this paper may apply to clinical faculty whose primary employer is a school/college of pharmacy, promotion and advancement in the academic setting are usually governed by criteria established by academic advancement, promotion and tenure committees.

SURVEY METHODS AND RESULTS

SURVEY METHODS

The Web-based survey conducted in August 2005 evaluated demographic characteristics and perceptions about motivational strategies, such as career ladders, mentoring activities, and career planning. Both front-line clinical pharmacists and managers/administrators were queried about the importance of each of the specific motivators and rewards using a scale of 1–5, where 1 was defined as "not important at all," and 5 was defined as "extremely important." In addition, the survey assessed methods for evaluating competency and job performance, as well as criteria for advancement. Respondents were also asked their anticipated roles in 5 years, the most important factors for achieving career success, and perceived barriers to rewards and advancements for clinical pharmacists. The survey was developed by the 2004–2005 ACCP Clinical Practice Affairs Committee and distributed through e-mail to all members of ACCP (n=7775) and a sample of directors of pharmacy within the University Health System Consortium (UHC, an alliance of academic medical centers throughout the United States, n=163), for a total of 7938 individuals surveyed. Although some directors of pharmacy at UHC may also be ACCP members, the number who received duplicate surveys was small. The survey was directed toward clinical pharmacists and pharmacy administrators practicing in a variety of settings, including acute care, ambulatory care, and managed care, whose primary employer is the patient health care organization.

Descriptive data analysis produced frequencies related to specific job characteristics of respondents, as well as current practices and perceptions related to systems of rewards and advancements for clinical pharmacists. Comparisons between front-line clinical pharmacists and

managers/administrators, and between male and female respondents, were made when appropriate. Nominal data were compared using the Yates chi-square procedure (with continuity correction) for dichotomous outcomes or using R × C contingency table analysis where multiple response categories were allowed. Questions using a Likert scale for responses were analyzed by comparing the proportion of responses in agreement (responses 4 or 5) versus the proportion of neutral or negative responses (responses 1, 2, or 3), again using the Yates chi-square procedure with continuity correction.

SURVEY RESULTS

Description of Respondents

A total of 1126 pharmacists (830 front-line clinical pharmacists and 296 managers/administrators) responded to the online survey, for an overall response rate of 14.2% (assuming the list of ACCP members and directors of pharmacy at UHC member hospitals were mutually exclusive). This rate is consistent with expected response rates for unsolicited opinion surveys.

A description of the practice location, number of years since completion of training, salary, gender, and description of current position for the respondents is provided in Table 1. Of the 830 front-line practitioner respondents, almost two-thirds (65%) practiced in either a community teaching hospital or an academic medical center. More than half (57%) of the 296 manager/administrator respondents practiced in either a community teaching hospital or an academic medical center. Most front-line clinical pharmacists (76%) were employed solely by health care institutions and stated that their current position was either exclusively clinical or mostly clinical with some distributive responsibilities.

Front-line clinical pharmacists reported being out of training for relatively fewer years than did managers, with 75% of clinical pharmacists having completed training within the past 10 years. Managers/administrators were more evenly distributed, having completed their training from less than 3 years ago to more than 25 years ago. Two-thirds of front-line clinical pharmacists were women, and about one-half of the managers/administrators were women. Relatively similar percentages of the front-line clinical pharmacists earned Bachelor of Science in Pharmacy degrees (B.S.), post-B.S. Doctor of Pharmacy degrees (Pharm.D.), and entry-level Pharm.D. degrees. More than half (53%) completed a pharmacy practice residency, and 40% completed a specialty residency. Forty-three percent of the front-line clinical pharmacists were board certified in an area of pharmacy practice.

Rewards and Motivators for Clinical Pharmacists

The online survey addressed rewards and motivators, including financial, promotional, educational, and other incentives that are in place to reward and retain clinical pharmacists. As shown in Table 2, the responding managers reported that the rewards and motivators most commonly made available to clinical pharmacists included the opportunity to teach/mentor pharmacy students and residents (80%), to become involved in drug policy activities (e.g., committees, formulary management, medication-use evaluations) (66%), to teach/mentor junior staff (58%), and to receive funds to support additional education and training (57%). Opportunities not commonly provided included time for participation in research (19%), opportunities for advancement into health system management (14%), and adjunct faculty appointments at schools of medicine (10%).

Front-line clinical pharmacists were queried regarding the availability of motivators and incentives offered by their health care institutions, as well as the perceived importance of each motivator (Tables 2 and 3). Front-line clinical pharmacists listed opportunities to teach/mentor pharmacy students and residents (47%), increased autonomy in the workday (37%), financial rewards/salary advancements (33%), and funds to support additional education and training (30%) as the most common motivators/incentives offered by their health care institutions (Table 2). The least common motivators/incentives provided for front-line clinical pharmacists included team-building and other activities to enhance teamwork, communication and mutual respect (11%); time for participation in research (11%); opportunity to advance into pharmacy management (10%); adjunct faculty appointment at a school of medicine (5%);and opportunity to advance into health system administration (1%). Of interest, 21% of front-line clinical pharmacists indicated that none of the listed motivators was offered at their institutions.

Front-line clinical pharmacists cited the following as the most important motivators: increased time for clinical practice, increased autonomy in the workday, and work-life balance (Table 3). Although work-life balance appears to be important to front-line clinical pharmacists, only 18% reported work-life balance as a focus in their institution; however, 31% of managers reported offering work-life balance initiatives as an incentive.

There were several statistically significance differences by gender in the perceived importance of motivators for front-line clinical pharmacists (Table 3). In comparing responses of clinical pharmacists by gender, female practitioners were more motivated by favorable and flexible scheduling, work-life balance, and autonomy in the workday compared with their male counterparts. Women were also more interested than were men in drug policy activities, team-building, time off from work for committee service, office space, and computer equipment. Men

reported a slightly (not significant) greater interest in advancement into health system administration.

Managers, who were asked to indicate their perception of the importance of specific motivators to their front-line clinical pharmacist staff, consistently underestimated the importance of most factors surveyed (see Table 3). In particular, managers significantly underestimated the importance that clinical pharmacists place on work-life balance and favorable work schedules. In addition, clinical pharmacists considered opportunities for advancement in a clinical hierarchy and increased work time for clinical research activities much more important than their managers believed. These data strongly suggest that managers need to better understand the factors that truly motivate their clinical pharmacists and make leadership decisions that are responsive to these important factors.

Clinical pharmacists were asked to indicate the most important factor for achieving career success. Work-life balance (45%) was overwhelmingly the most important, followed by a challenging position (22%), opportunities for professional development (20%), and good salary and benefits (10%). One percent of front-line clinical pharmacists indicated that no single factor was most important for career success, and 2% cited other factors important for success, most of which were related to having an enjoyable and satisfying position and improving patient outcomes.

Front-line clinical pharmacists were asked to rate the impact of motivators on their career choices. Almost 70% of clinical pharmacists reported that motivators had an important impact on career choices, 27% rated motivators as having a moderate impact, and 3% indicated that motivators had little impact.

Systems and Opportunities for Advancement of Clinical Pharmacists

1. Measuring Clinical Competencies and Clinical Contributions

A wide variety of methods for evaluating competency are currently used. The prevalence of current methods for evaluating competency is described in Table 4, as is the perception of accuracy of different methods from the view of clinical pharmacists. According to front-line practitioner respondents, the most common methods for evaluation of competency included documentation of clinical interventions (61%), adherence to institution-specific professional practice standards (56%), and self-evaluation (54%). The least common methods for measuring competency included patient evaluation of pharmacist services (5%) and oral examination (3%). The highest percentage of front-line practitioner respondents (40%) reported that demonstrating skills (e.g., therapeutic knowledge, critical thinking, problem solving) most accurately measured their professional competency. The methods identified as least accurate include the completion of certificate programs and adherence to professional practice standards (both 1%) and oral examination and patient evaluation of pharmacist services (both 0%). Eighty-five percent of front-line clinical pharmacists reported that their job performance was evaluated annually; 12% were evaluated more often, and 7% were evaluated less often. Two percent of clinical pharmacists indicated that their job performance was never evaluated.

2. Criteria for Advancement

Seventy percent of front-line practitioner respondents did not have defined criteria for career advancement, and 63% of managers/administrators did not have defined criteria for the advancement of clinical pharmacists at their institutions. For the responding front-line clinical pharmacists who acknowledged that they did have defined criteria for career advancement

(n=251), 69% responded that such criteria were used in the development of annual performance plans for clinical pharmacists. Of the 111 manager/administrator respondents who had defined criteria for career advancement of clinical pharmacists at their institutions, 70% responded that such criteria were used in the development of annual performance plans for clinical pharmacists.

Table 5 outlines objective criteria for advancement, as reported by front-line clinical pharmacists and managers/administrators. The most common objective criteria used for the advancement of front-line clinical pharmacist respondents included the attainment of specified competencies (60%), the number of years spent in the current position (43%), and the attainment of board certification (43%). The most common objective criteria used for the advancement of clinical pharmacists, as reported by managers/administrators, included attaining specified competencies (67%), attaining board certification (52%), and completing a pharmacy practice residency (42%). Ten percent of front-line clinical pharmacists and 5% of managers reported that no objective criteria were required for advancement at their institutions.

3. Professional Development Plans

The status of career planning and its importance, according to the front-line clinical pharmacists surveyed, was as follows: (1) career planning was not done, but respondent was interested (56%); (2) career planning was done, and respondent was interested (28%); (3) career planning was not done, and respondent was not interested (14%); and (4) career planning was done, but respondent was not interested (2%). Almost two-thirds (64%) of front-line practitioner respondents had not developed a plan for career advancement. However, 84% of these clinical pharmacists indicated a strong interest in career planning.

4. Career Ladders

The results of the online survey demonstrated that only 16% of front-line practitioner respondents and 21% of administrator/manager respondents had career ladders in place for clinical pharmacists. Of the front-line practitioner respondents who had career ladders in place (n=132), 34% had three "rungs" and 30% had four or more rungs, whereas almost 40% of respondents were unsure of the number of rungs in the career ladder at their institution. Most front-line clinical pharmacists with career ladders (88%) were satisfied with the existing career ladders. Of the responding managers/administrators with career ladders in place for their clinical staff (n=61), 49% had three rungs, and 36% reported four or more rungs. Seven percent of managers were unsure of the number of rungs on the career ladders offered at their institutions. Most (90%) managers/administrators who offered career ladders for their clinical staff (n=61) were satisfied with them.

5. Opportunities for Advancement of Clinical Pharmacists

Front-line clinical pharmacists were queried regarding their professional career plans within the next 5 years. Most respondents (47%) intended to remain in their current roles. Fifteen percent and 12% intended to pursue advancement within the clinical practitioner track at their own institution or at another institution, respectively. Seven percent of those surveyed intended to pursue advancement into management at their own institution (5%) or at another institution (2%). The remaining respondents intended to move into the pharmaceutical industry (6%), tenure-track or nontenure-track academic positions (3% each), and other roles (7%). Many respondents who chose the "other" category indicated that they were unsure of their anticipated roles in the next 5 years, whereas others indicated their intention to pursue part-time

employment, consulting, or retirement. Of interest, at least 20% of practitioner respondents indicated that they intended to pursue career opportunities at institutions other than their own. Based on the survey, most front-line clinical pharmacists do not regard a position in management as an attractive career option, with only 7% reporting an interest in advancing to pharmacy management.

Departmental and Institutional Support for Professional Advancement

More than half of the front-line clinical pharmacists surveyed reported that mentoring activities were offered at their institutions. The most common mentoring activities offered included training on precepting or mentoring students and residents (28%) and training on presentation skills or opportunities to make presentations (25%) (Table 6). Forty-six percent of responding front-line clinical pharmacists did not have mentoring activities currently offered at their job. However, front-line practitioner respondents felt that mentoring activities were important, with training on precepting or mentoring students and residents, tips on work-life balance, training on presentation skills and opportunities to make presentations, and advice on career advancement being most important (see Table 7). The large percentage of respondents stating that no mentoring activities were available provides clear evidence of the opportunities for the pharmacy profession to improve mentoring initiatives for front-line clinical pharmacists.

Barriers to Rewards and Advancements for Clinical Pharmacists

Front-line clinical pharmacists and managers/administrators were queried regarding their perceptions about the most important barriers to reward and advancement opportunities (Table 8). Both groups rated the lack of a clear reward and

advancement structure for qualified clinical pharmacists who positively impact patient care and the institution as the most important challenge/barrier. As previously stated, the survey indicated that two-thirds of the manager/administrator respondents had no defined criteria for the advancement of employees in their workplace. Clinical pharmacists rated the lack of understanding of clinical pharmacy and clinical pharmacy roles by departmental and institutional leaders as the second most important barrier, whereas managers rated financial constraints second in importance. Pharmacy and institutional management may describe "clinical pharmacy" services as renal dosing, IV to PO initiatives, pharmacokinetic monitoring, and the like, rather than the complete assessment, recommendation, and monitoring of pharmacotherapy for a specific patient, which exemplifies high-level pharmaceutical care. More than one-third of both clinical pharmacists and managers indicated that pharmacy department structure and staffing models were not designed to support a clinical vision. Other factors cited as important barriers to rewards and advancements for clinical pharmacists included the shortage of qualified pharmacists for clinical roles of increasing responsibility, the shortage of clinical pharmacy leaders, the overall pharmacist shortage, and the lack of sufficient funds for educational opportunities.

DISCUSSION

Rewards and Motivators for Clinical Pharmacists

A wide discrepancy appears to exist between the perceptions of front-line pharmacy clinicians and pharmacy managers with respect to the rewards and motivators made available to clinical pharmacists. Although the clinical pharmacists and managers responding to the survey

were not necessarily from the same institutions, managers rated that they offered each motivator at a higher percentage than reported by clinical pharmacists, in every case. For example, only 2% of managers reported that none of the stated motivators was offered at their institution, compared with the perception of 21% of clinical pharmacists. The discordance in perception was most evident with respect to the opportunity for advancement into pharmacy management as a reward (only 10% of clinical pharmacists believed this opportunity existed, whereas more than 50% of managers reported that career advancement to management was available to clinical pharmacists). Other significant discrepancies were noted in the availability of financial rewards for high performance and the availability of increased work time for clinical activities, teaching, and participation in professional organizations. A potential explanation for these discrepancies is that managers may not be effectively communicating the availability of rewards to their employees.

Front-line clinical pharmacists and managers also have different perceptions of the importance of specific motivators for clinical pharmacists. Motivators perceived as important by clinical pharmacists, but not as often offered, included salary differentiation based on the clinical pharmacist's contribution to patient care and the organization, opportunities for advancement in a clinical hierarchy, increased time for clinical research, and team-building and other activities that enhance teamwork, communication, and mutual respect. Although the survey results indicated that managers and administrators had a general understanding of the most important rewards and motivators for staff, misconceptions by managers do exist. Therefore, managers should query their staff to determine the most important motivators, incorporate these factors into systems of advancement, and educate clinical pharmacists on how to achieve these rewards and advancements.

Having a challenging position and being given the opportunity for advancement were rated by nearly one-half of front-line clinical pharmacists as the most important factors for career success. The impact of a pharmacist's job satisfaction and perceived utilization of skills has been evaluated in the literature. Since the decision to offer only the entry-level Doctor of Pharmacy degree in 1996, there is growing concern that pharmacist job responsibilities are not keeping pace with the newly acquired clinical skills of pharmacy graduates. This perceived or actual overeducation of graduating pharmacists may have a negative impact on job satisfaction, resulting in increased psychological distress.[8] There is evidence to suggest that the opportunity to use skills by participating in more challenging job activities can play an important role in professional fulfillment.[9-11] Olson and Lawson found a direct relationship between skill utilization and job satisfaction in the pharmacy profession – job satisfaction improved with the more time pharmacists spent performing clinical activities.[12] A 1999 survey of job satisfaction and perceived utilization of skills among pharmacists practicing in institutional and ambulatory care settings showed a positive correlation between job satisfaction and adequate staffing (e.g., reasonable workload, competent coworkers).[13] Job satisfaction was influenced by perceived utilization of skills, staffing, and education, with practice setting, job title, and age significantly related to perceived utilization of skills. With larger numbers of pharmacists entering the workforce with advanced training and job skills, pharmacy practice models must evolve to better utilize the knowledge and skills of these individuals.

The current pharmacist shortage provides greater opportunity for clinical pharmacists to tailor professional positions to their own situations, including the desire or need to work on a part-time basis. In our survey, financial rewards were ranked lower than intangible rewards (e.g., work-life balance, challenging position, career advancement opportunities). Generational

changes have likely contributed to the diminished importance of salary as a motivator, particularly for younger staff. Related to changes in employee demographics is the increasing percentage of female pharmacy graduates. In a 2004 survey of 2443 female business employees of Ernst & Young, Goldman Sachs, and Lehman Brothers, 37% of these women voluntarily left the workforce,[14] and this percentage increased to 43% if children were involved. Of interest, 17% departed either because of lack of opportunity or understimulation from a position that was not meaningful. Priorities identified by the women in this study included an opportunity to associate with individuals they respected, freedom to be themselves, flexible work schedule, opportunities to collaborate and work as a team, and recognition from the company.

Systems and Opportunities for Advancement of Clinical Pharmacists

Front-line clinical pharmacists responding to the online survey indicated that opportunity for professional advancement was an important motivator. Criteria for the advancement of clinical pharmacists may vary from institution to institution, but usually involve some component of clinical qualifications (including education, licensure, and certifications) and clinical competence.

1. Clinical Qualifications

Clinical pharmacists are licensed pharmacists who initiate their training and education by graduating from an accredited college or school of pharmacy.[15] Clinical pharmacists acquire their knowledge and skills through primary academic curricula and clinical clerkship rotations, postgraduate training and experience, or a combination of these mechanisms. Additional training for acquiring specialized skills is available through postgraduate degrees and certificate

programs. Obtaining board certification can validate the knowledge of a pharmacotherapy specialist and is valued by those who attain it, but it is not well recognized outside the profession.[16] The Council on Credentialing in Pharmacy, a coalition of 11 national pharmacy organizations, outlined the credentialing available for pharmacists, from preparing for the pharmacy profession to opportunities for the practicing pharmacist.[17] Although available credentials are described, professional standards for establishing competency are not widely recognized.[18] It is usually the responsibility of the practice site to establish competency criteria for advanced clinical practice roles.

2. Defining/Measuring Clinical Competencies and Clinical Contributions

A "competency" is "a distinct skill, ability or attitude that is essential to the practice of a profession."[17] "Competence," as recognized by the Council on Credentialing in Pharmacy, is "the ability to perform one's duties accurately, make correct judgments, and interact appropriately with patients and colleagues. Professional competence is characterized by good problem solving and decision-making abilities, a strong knowledge base, and the ability to apply knowledge and experience to diverse patient care situations."[17] Guidelines for the clinical competency of pharmacotherapy specialists have been published.[15] In addition, practice guidelines specific to clinical pharmacy disciplines, such as ambulatory care and critical care, exist.[19-21] Accreditation standards exist for postgraduate training to develop competence, skill, and application of drug therapy knowledge in providing pharmaceutical services. Revised accreditation standards for postgraduate year one (PGY1) and postgraduate year two (PGY2) have been recently released. Stated outcomes in the PGY1 standards define the requirements for practice in direct patient care settings, whereas the PGY2 standards define the advanced-level

training and skills necessary for clinical pharmacists to provide patient care to specific patient populations or in specialized care settings.[22] Several references are available to guide administrators in developing a list of the general clinical competencies expected of pharmacists, which can aid in the reward and advancement process.[23-29]

The importance of identifying clinical competencies extends beyond career advancement and into job satisfaction, as well as defining a level of practice that improves clinical and economic outcomes. The opportunity to use clinical skills is positively correlated with job satisfaction.[13] A positive association has been demonstrated between clinical services and clinical and economic outcomes.[30-33] For example, the involvement of a pharmacist in patient care rounds resulted in a 66% reduction in adverse drug events.[34] A recent review reported that clinical pharmacists' interventions reduced the occurrence of adverse drug events and medication errors, improved the appropriateness of medication regimens and patients' knowledge and adherence, and decreased the length of hospital stay.[35] Although high-level clinical pharmacy practice has been documented to improve outcomes, only 13% of front-line clinical pharmacists and 30% of managers in the current survey reported salary differentiation based on contributions to patient care, the department, and the institution.

Methods for evaluating competencies include written examinations, oral examinations, self-evaluations and consumer evaluation.[36-39] Schumock and colleagues proposed a three-tiered mechanism for evaluating clinical pharmacists, including self-appraisal and goal setting, peer evaluation, and supervisory evaluation.[23] Scales for evaluating specific skills are available to aid in this process, including a reliable and valid scale for assessing patient satisfaction with the pharmacist[39] and a tool for evaluating patient counseling competencies.[28] The front-line clinical pharmacists in our survey favored evaluating skills as a mechanism for determining competency.

Overall, evaluation mechanisms should be built around departmental goals and defined criteria for advancement.

Documentation of clinical interventions is often used to evaluate the competency of clinical pharmacists, as described in our survey and the literature.[40] A consistent format and method for recording clinical interventions should be decided at each institution. Suggested formats include recording the data in ranked order of clinical significance[41] or recording only clinically important recommendations and those involving cost savings.[42] Methods of documentation consist of paper and pencil, computers (including personal digital assistants), and voice recording.[42-44] A consistent documentation format and method should be the goal of each institution and practice site to help demonstrate the value of pharmacists and collect data for use in the professional advancement of clinical pharmacists.

3. Criteria for Advancement

Criteria for advancement differ depending on the individual's career path. Outlining the criteria for advancement for each career path is challenging because differences extend to individual institutions as well. Our survey focused on clinical pharmacists and managers/administrators in diverse settings whose primary employer was the patient health care organization. Although some aspects of the survey apply to clinical faculty whose primary employer is a school/college of pharmacy, promotion and advancement in the academic setting is usually governed by criteria established by academic advancement, promotion and tenure committees.

Clinical pharmacists responding to our survey practiced in a variety of health care settings, and notable variability existed in the criteria for advancement among these diverse

settings. General requirements that may be evaluated objectively include additional education and/or certifications, advanced clinical experience/expertise, and success in the present position. Evaluation of characteristics such as motivation, communication skills, leadership skills, teamwork, judgment, and ability to prioritize is usually more subjective.

Our survey results indicate that more institutions must provide clinical pharmacists with clear, defined criteria for advancement. Although the criteria need not be strictly uniform between institutions, there must be consistency within each institution. In addition, managers and administrators must effectively communicate and consistently administer the defined criteria for the professional advancement of their staff.

4. Professional Development Plans

A process that all individuals seeking advancement can follow is CPD, or the synthesis of professional development plans (PDPs). CPD is a framework consisting of five steps (self-reflection, development of a structured plan, action to obtain goals, documentation of the process and outcomes, and evaluation of the outcomes) that enables individuals to clearly visualize the direction of their career and professional accomplishments.[6] Rouse provides a detailed description of the CPD process and how it relates to the pharmacy profession.

PDPs are individualized, self-directed, outcome-based plans that provide a structured approach to CPD. They are complementary to career ladders (discussed below). PDPs serve two main purposes.[6] The first is to provide a structured approach for ensuring and maintaining professional competence above and beyond what is provided by standard continuing education requirements. Continuing education programs are viewed as only one aspect of professional development; they do not abrogate the need for further education and training. PDPs may include

activities directed at adding competencies, skills, or certifications that would otherwise not be provided by continuing education programs. Second, PDPs can be tailored to the needs of the individual pharmacist on the basis of the criteria established in a career ladder or an individual's career plan. Clinical pharmacists can be made aware of deficiencies that would prevent career advancement and can develop a plan for addressing them. Because professional development is a continuous process, PDPs are to be continually reevaluated, with new goals and plans of action set when needed.

Based on our survey, many pharmacists do not have PDPs but would like to develop a plan. It is evident that there should be considerably more focus on the career planning and career development of front-line clinical pharmacists. The principles of CPD outlined in the literature[6] should be incorporated into daily practice.

5. Career Ladders

Career ladders are structured programs that provide levels of advancement within an organization without a change in job description or title.[7,45,46] Most of the available literature related to career ladders in the health professions pertains to nursing; however, the principles also apply to pharmacy.[45,47-51] In the past, clinical pharmacists often left clinical practice positions to receive promotions and assume greater responsibility in management roles. This created a loss of talented clinical pharmacists, as well as frustration for the clinical pharmacists who could no longer practice clinically once they assumed traditional management roles. Parallel clinical and management career ladders offer an alternative for advancement of the highly motivated clinical practitioner. Opportunities to advance in a clinical track can prevent the displacement of the most talented clinical pharmacists into nonclinical positions.

Today, career ladders are implemented to improve retention and recruitment of the most talented clinical pharmacists as well as to provide motivation and opportunities for the advancement of pharmacists seeking new challenges. Career ladders provide structure and guidance for the professional development of individuals, contribute to improved overall job satisfaction, and may facilitate succession planning for the institution.[51,52] However, according to our survey, only one of five front-line clinical pharmacist respondents have a career ladder available to them.

Career ladders should be based on fundamental principles, competencies, and/or levels of responsibility related to the practice of clinical pharmacy. Each institution's career ladder must reflect its own unique requirements. An institution must determine how many rungs or levels make up the career ladder, as well as how many clinical pharmacists may occupy a certain level. A given institution may also identify the need for multiple career ladders based on different job descriptions (e.g., clinical and management). Other considerations include establishing appropriate criteria for advancement, assessing resource availability for professional development, identifying key positions that may be potentially filled by ascension on the ladder, and periodically reviewing the effectiveness and impact of the career ladder. A suggested approach for implementing career ladders is provided below[53-59]:

- Consider creating a subcommittee to lead the development.
- Perform a staff survey for input.
- Align the career ladder to departmental and institutional goals.
- Generate criteria for clinical competence and levels of advancement.
- Generate ideas for CPD to support the career ladder.
- Determine methods for recognition and financial rewards.

- Consider a plan for transitioning current staff onto the career ladder.
- Incorporate a periodic evaluation process for updating the career ladder.

Typical pharmacy career ladders consist of three to five levels of advancement with increasing levels of responsibility and autonomy.[53-59] Each progressive level offers new or additional rewards. Each level has preset (but flexible), clearly defined criteria for advancement. An example of a career ladder has been published,[60] and a general description of current career ladders is described in the current survey results. Well-managed career ladders can improve job satisfaction, increase employee retention, improve employee competence, and make institutions more desirable and attractive to prospective candidates.[48,53] Another distinct advantage for institutions that have successfully implemented career ladders and are able to develop and retain highly qualified clinical pharmacists relates to succession planning. Despite potentially better retention rates, an institution will inevitably face the situation of having open positions. Investing in the development of its employees affords the institution the luxury of having clinical pharmacists capable and qualified to fill many of these openings. The initial investment in establishing and maintaining a career ladder saves the institution long-term costs related to recruitment, orientation, and training while minimizing disruption during transition periods. Overall, this may translate into enhanced efficiency and improved patient medication management and outcomes. Although survey respondents indicated that career ladders were not commonly used, the level of satisfaction with current career ladders is predominantly positive.

6. Opportunities for Advancement of Clinical Pharmacists

In addition to clinical career ladders, other advancement opportunities exist for clinical pharmacists. Clinical pharmacists who begin as clinicians but aspire to management roles can

benefit from a structured PDP with a management focus.[61] With institutional support and mentorship, clinical pharmacists who identify the desire to pursue management roles can be proactively nurtured in a management career path. This may include providing opportunities to attend management courses or funding to pursue a master's of business administration or other master's-level degree. Examples of management positions within an institutional pharmacy department include Manager, Assistant Manager, Supervisor, Clinical Manager, Residency Director, Operations Manager, Assistant Director, and Director.

In addition, numerous opportunities exist for clinical pharmacists within the pharmaceutical industry.[62] These include, but are not limited to, pharmaceutical research/drug development, drug information, medical affairs, quality assurance, product management, and regulatory affairs. Clinical pharmacists with more advanced training and experience may be recruited for other high-level positions as well. Although opportunities for movement in the pharmaceutical industry may represent a threat to pharmacy labor and the talent pool for traditional clinical pharmacy roles, they may also provide opportunities for clinical pharmacists to demonstrate their value and importance in many innovative roles.

Clinical pharmacists who have completed postgraduate training and/or who have demonstrated clinical excellence are often afforded opportunities to become involved in academic pursuits. Examples of such academic pursuits include precepting pharmacy students, becoming a guest lecturer at a university, or holding a joint appointment with a school or college of pharmacy and/or medicine.

Departmental and Institutional Support for Professional Advancement

Pharmacy managers and administrators must find innovative mechanisms to recognize excellence and reward clinical pharmacists. Motivation can be influenced by both the employee and the employee's work environment. Ensuring that the resources necessary for employee productivity and advancement are present, providing routine feedback, and creating a reward mechanism that fosters positive contributions are all necessary for productive work environments. Work environments designed to successfully achieve specific goals are likely to create a setting in which employees are inspired to contribute and excel. Development and effective communication of a department's strategic plan to all employees is important to ensure that all are informed of departmental and institutional goals, as well as their role in achieving these goals.

Creating an environment that promotes and rewards self-development and professional growth is vital and reinforces the value of CPD. Clinical pharmacists should make sure their goals are in line with those of their employers to promote a productive, cohesive working relationship. An organization, regardless of its professional focus, has a responsibility to its employees to provide written information that describes its mission, vision, and organizational structure. In addition, an employee is entitled to a clear outline of his/her job description as well as his/her opportunities and requirements for advancement, as described above. The opportunities and expectations for advancement should be conveyed to the employee upon entry into the job, at performance evaluations, and/or when changes occur. Although the organization should provide this information proactively, the employee may need to take the initiative to seek it out independently. After an employee is informed of these opportunities and is knowledgeable about the expectations, then he/she should determine what is required for success and seek out support offered by the employer.

An employer can offer support in many forms, including administrative, educational, financial, and mentoring support. Expectations should exist for the employer to have a sincere, vested interest in supporting the employee professionally. Employees should inquire about the financial commitment of their employer for educational support. Pharmacists recognize the value of continuing education in the ever-changing world of pharmacy and medicine through professional conferences and self-study. More than half (52%) of administrator respondents in the current survey reported using board certification as a criterion for professional advancement; however, a recent article reported that only 34% of pharmacy faculty who achieved board certification were reimbursed for the preparatory course or examination fee. Even fewer employers provide reimbursement for maintenance of the certification. Board certification can contribute to professional advancement, but it appears that most work environments have not found a way to incorporate this achievement into their systems of rewards and advancements.

Enhancing Rewards and Advancements for Clinical Pharmacists

Identifying the attributes of a job most important to an individual employee is crucial to developing rewards that will motivate that person.[63] Among these rewards are financial incentives, salary differentiation based on contribution to the department, more favorable schedules, more autonomy in the workday, opportunities to attend conferences and receive training, drug policy involvement, teaching opportunities, research opportunities, time off for speaking engagements, time off for committee service or elected office, office space, and quality-of-life strategies (e.g., work-life balance). Front-line clinical pharmacists valued work-life balance, a challenging position, and opportunities for career advancement over financial rewards.

Clearly, pharmacy managers need to develop methods for identifying and rewarding the clinical pharmacists making the greatest contributions to patient care, their departments, and the institution. These "star" employees are the individuals who advance the organization's goals and mission on an ongoing basis. Forcing all clinical pharmacists into the same role, regardless of their training, experience, and accomplishments, will lead to job dissatisfaction and loss of the most productive employees to other institutions and/or other professional roles. Perhaps a logical starting place in securing reward and advancement opportunities for all clinical pharmacists is further educating pharmacy and health system administrators about the value and importance of progressive clinical pharmacy services. Education should include an emphasis on the value of training, experience, and credentials (including certifications), as well as the importance of using the most appropriate level of clinician to provide specific patient care services. The overall pharmacist shortage and shortage of qualified pharmacists for clinical roles of increasing responsibility may result in the hiring of underqualified staff for clinical roles.

Financial rewards appear not to be a major motivator for survey respondents; however, salary compression and lack of a significant salary gap between newly graduated pharmacist hires and veteran clinical pharmacists with many years of experience may demotivate employees. Clinical pharmacists who have undertaken postgraduate training, or those who have notable high-level clinical experience and accomplishments, should be able to share with pharmacy administration their realistic expectations for clinical services in their area(s) of specialty and work together as a team to determine the department's overall definition of clinical pharmacy scope. Pharmacy managers/administrators must keep abreast of the latest trends in clinical pharmacy services so that they can effectively petition health system administration for the resources to provide appropriate services to meet the needs of patients and other health care

professionals within their organization and reward those pharmacists making the greatest contributions.

Having the appropriate departmental and organizational reward and advancement structure in place is paramount to maintaining an employee's level of motivation. Studies have shown that most employees are motivated initially but that, after some time in the organization, morale begins to decline. Studies have indicated that morale may drop sharply after the individual has been employed for as few as 6 months and suggest that it is directly related to management (e.g., policies and procedures, working relationships with management).[64] The business literature suggests that there are a few key factors to maintaining an employee's motivation, including equity, achievement, and camaraderie.[65]

Camaraderie may occur by hiring individuals who work well together. Strategies to generate togetherness may include developing and empowering small work teams for project development. Front-line clinical pharmacists indicated in the survey that they valued team-building and other activities to enhance communication, teamwork, and mutual respect. However, only 11% of clinical pharmacists reported that team-building activities were offered at their institutions.

Developing and implementing effective and motivating reward and advancement systems requires creative thinking and innovation. Once systems have been outlined, they must be effectively communicated to clinical pharmacists so that such systems can gain endorsement and be valued by employees. Today's pharmacy leaders must become familiar with the business literature, keeping abreast of techniques and skills, to be successful and effective leaders. Although today's work environment is hectic, successful leaders will make time for their own

professional development and thereby effectively develop a rich environment for their employees.

CONCLUSION

Well-qualified clinical pharmacists are in great demand by health care institutions striving to provide outstanding patient care services in an environment of limited financial resources. Developing and implementing systems of rewards and advancements for clinical pharmacists who are positively affecting patient care and the institution's mission will result in a more satisfying work environment and reduce employee turnover. Front-line clinical pharmacists participating in the current survey indicated that work-life balance, a challenging position, and opportunities for professional advancement were the most important factors for career success. Pharmacy and health system managers/administrations should take heed of the survey results because effective systems of rewards and advancements for clinical pharmacists produce a "win-win" situation for clinical pharmacists, health care institutions, and patients.

Readers of this white paper should include front-line clinical pharmacists as well as directors and managers who supervise clinical pharmacists. Front-line clinical pharmacists should consider these findings in the context of their current position and identify how they might find more motivation, satisfaction, and value in their current positions. They should be encouraged to discuss these findings and their thoughts about opportunities for rewards and advancements with their supervisors. Directors and managers should carefully review these findings and complete a "self-assessment" of their department and institution, evaluating the policies and systems of rewards and advancements that they offer to keep their staff satisfied and motivated and increase retention.

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Table 1. Descriptive Characteristics of Respondents, by Focus of Practice

Descriptive Characteristic	Front-Line Clinical Pharmacists (n=830) n (%)	Managers/Administrators (n=296) n (%)	p v
location			
mic medical center	317 (38)	96 (32)	0.
unity teaching hospital	224 (27)	74 (25)	
unity nonteaching hospital	224 (15)	57 (19)	
ged care organization	30 (4)	20 (7)	
unity pharmacy	12 (1)	2 (1)	
health care	4 (0)	2 (1)	
term care	6 (1)	1 (0)	
	112 (13)	44 (15)	
care institution only	630 (76)	257 (87)	0.
e of pharmacy only	107 (13)	19 (6)	
care institution and college of pharmacy	93 (11)	20 (7)	
of years since completion of last training			
	239 (29)	43 (15)	< 0.
	201 (24)	46 (16)	
	186 (22)	58 (20)	
	96 (12)	50 (17)	
	44 (5)	34 (11)	
	30 (4)	43 (15)	
	34 (4)	22 (7)	
ange per year			
000	16 (2)	1 (0)	< 0.

00–$69,999	14 (2)	1 (0)	
00–$79,999	109 (13)	9 (3)	
00–$89,999	227 (27)	28 (9)	
00–$99,999	298 (36)	67 (23)	
000–$109,999	121 (15)	84 (28)	
000–$119,999	27 (3)	34 (11)	
0,000	18 (2)	72 (24)	
	270 (33)	142 (48)	< 0
e	560 (67)	154 (52)	
raining/certification			
lor of science (B.S.)	362 (44)	175 (59)	< 0.
.S. Pharm.D.	349 (42)	161 (54)	
level Pharm.D.	395 (48)	84 (28)	
acy practice residency	438 (53)	122 (41)	
lty residency	331 (40)	82 (28)	
vship	83 (10)	26 (9)	
ate degree	19 (6)	58 (20)	
cate program	131 (16)	39 (13)	
certification	353 (43)	97 (33)	
	58 (7)	17 (6)	
ion of current position			
ively clinical practice	528 (64)	Not applicable	
clinical, some distributive	231 (28)		
distributive, some clinical	67 (8)		
ively distributive practice	0 (0)		

Table 2. Prevalence of Current Methods for Motivating Clinical Pharmacists[a]

Methods for Motivating Pharmacy Practitioners	Front-Line Clinical Pharmacists (n=830) n (%)	Managers/Administrators (n=296) n (%)
Financial rewards, salary advancements	276 (33)	161 (54)
Salary differentiation based on contribution to your department and institution	105 (13)	90 (30)
Opportunity for advancement in a clinical hierarchy	116 (14)	108 (36)
Opportunity for advancement to pharmacy management	79 (10)	160 (54)
Opportunity for advancement into health system administration	12 (1)	41 (14)
More favorable schedule	197 (24)	107 (36)
Flexibility in scheduling	147 (18)	96 (32)
Increased autonomy in the workday	310 (37)	164 (55)
Increased work time for clinical practice activities	231 (28)	141 (48)
Increased work time for clinical research activities	93 (11)	55 (19)
Time off to achieve additional education and training	244 (29)	164 (55)

Funds to support additional education and training	251 (30)	169 (57)
Involvement in drug policy activities	232 (28)	194 (66)
Opportunity to teach/mentor pharmacy students and residents	392 (47)	237 (80)
Opportunity to teach/mentor junior staff	172 (21)	173 (58)
Adjunct faculty appointment at school of pharmacy	223 (27)	142 (48)
Adjunct faculty appointment at school of medicine	40 (5)	31 (10)
Time off for local/regional/national speaking engagements	184 (22)	160 (54)
Time for committee service and elected office in local/regional/national professional organizations	114 (14)	127 (43)
Office space	229 (28)	142 (48)
Computer equipment	198 (24)	165 (56)
Team-building and other activities that enhance teamwork, communication, and mutual respect	95 (11)	101 (34)
Work-life balance	150 (18)	93 (31)
None of these are used as motivators for pharmacy	173 (21)	7 (2)

[a]Yates chi-square, df = 1, corrected for continuity; p values for each item < 0.0001.

Table 3. Front-Line Clinical Pharmacists' and Managers' Perceptions of Importance of Motivators to Front-Line Clinical Pharmacists[a]

Motivator	No. of Front-Line Clinical Pharmacists Indicating Important (%) n=830	No. of Managers/ Administrators Indicating Important to Front-Line Clinical Pharmacists (%) n=296	p value[b,c] Front-Line Clinical Pharmacists vs. Managers/ Administrators	No. of Male Front-Line Clinical Pharmacists Indicating Important (%) n=270	No. of Female Front-Line Clinical Pharmacists Indicating Important (%) n=560	p value[b,d] Male vs. Female Front-Line Clinical Pharmacists
Increased work time for clinical practice activities	744 (90)	245 (83)	0.003	237 (88)	507 (91)	0.972
Increased autonomy in the workday	739 (89)	250 (85)	0.049	229 (85)	510 (91)	0.010
Work-life balance	725 (87)	235 (79)	0.001	226 (84)	499 (89)	0.037
Funds to support additional education and training	703 (85)	227 (77)	0.002	223 (83)	480 (86)	0.395
More favorable work schedule	684 (82)	214 (72)	< 0.001	204 (76)	480 (86)	< 0.001
Time off to achieve	681 (82)	216 (73)	0.001	211 (78)	470 (84)	0.053

additional education/training						
Flexibility in scheduling	659 (79)	213 (72)	0.010	194 (72)	465 (83)	< 0.001
Financial rewards, salary advancements	640 (77)	224 (76)	0.674	204 (76)	436 (78)	0.512
Computer equipment	585 (71)	202 (68)	0.518	176 (65)	409 (73)	0.025
Salary differentiation based on contribution	588 (71)	183 (62)	0.005	190 (70)	398 (71)	0.899
Opportunities to teach/mentor pharmacy students and residents	573 (69)	190 (64)	0.115	181 (67)	392 (70)	0.433
Office space	563 (68)	175 (59)	0.008	170 (63)	393 (70)	0.045
Opportunity for advancement in a clinical hierarchy	566 (68)	167 (56)	< 0.001	177 (66)	389 (69)	0.292
Increased work time for clinical research activities	482 (58)	111 (38)	< 0.001	155 (57)	327 (58)	0.846

Time off for local/regional/national speaking engagements	467 (56)	137 (46)	0.004	146 (54)	321 (57)	0.417
Team-building and other activities that enhance teamwork and mutual respect	438 (53)	137 (46)	0.064	126 (47)	312 (56)	0.018
Opportunities to teach/mentor junior staff	444 (53)	130 (44)	0.006	137 (51)	307 (55)	0.303
Time for committee service and elected office in local/regional/national professional organizations	404 (49)	126 (43)	0.082	117 (43)	287 (51)	0.039
Adjunct faculty appointment at school of pharmacy	396 (48)	106 (36)	< 0.001	128 (47)	368 (66)	0.962
Involvement in drug policy activities	384 (46)	133 (45)	0.744	109 (40)	275 (49)	0.022
Adjunct faculty appointment at school of	281 (34)	51 (17)	< 0.001	90 (33)	191 (34)	0.887

medicine						
Opportunity for advancement to pharmacy management	188 (23)	88 (30)	0.019	56 (21)	132 (24)	0.410
Opportunity for advancement into health system administration	121 (15)	32 (11)	0.127	43 (16)	78 (14)	0.510

[a]Based on a scale of 1–5, with 1 being least important and 5 being most important; responses were combined to "perceived important" (% of respondents indicating a score of 4–5).

[b]Comparisons of ordinal data, including rating questions with 5-point Likert scale responses, were made using the Yates chi-square test with continuity correction.

[c]Comparison of front-line clinical pharmacists rating the motivator as important vs. managers/administrators rating the motivator as important to their front-line clinical pharmacists.

[d]Gender comparison for all front-line clinical pharmacists responding to the survey (managers/administrators excluded).

Table 4. Prevalence of Methods Used for Evaluation of Competency and Perception of Accuracy of Each Method, from the Perspective of Front-Line Clinical Pharmacists

	Methods for Evaluating Competency of Front-Line Clinical Pharmacists (%)	Most Accurate Measure of Competency of Front-Line Clinical Pharmacists (%)
Documentation of clinical interventions	61	13
Adherence to institution-specific professional practice standards	56	4
Self-evaluation	54	8
Demonstration of skills	53	40
Peer evaluation by a pharmacist	45	10
Adherence to professional practice standards	43	1
Peer evaluation by other health care professionals	32	11
Written examination	29	3
Attainment of board certification	20	4
No formal method of evaluation	15	N/A
Completion of certificate programs	9	1
Patient evaluation of pharmacist services	5	0
Other	4	4
Oral examination	3	0

N/A = not applicable.

Table 5. Objective Criteria Required for Advancement of Clinical Pharmacists at Respondents' Institutions

Criterion	Front-Line Clinical Pharmacists (n=251)[a] n (%)	Managers/Administrators (n=111)[b] n (%)	p value[c]
Attaining specified competencies	151 (60)	74 (67)	0.2893
Number of years in current position	107 (43)	44 (40)	0.173
Number of years employed by institution	73 (29)	21 (19)	0.0569
Obtaining Pharm.D. degree	91 (36)	44 (40)	0.6198
Completing pharmacy practice residency	84 (34)	47 (42)	0.1331
Completing specialized pharmacy residency	68 (27)	40 (36)	0.1117
Completing fellowship training	24 (10)	15 (14)	0.3501
Attaining board certification	108 (43)	58 (52)	0.1311
Completing specialized certificate programs	55 (22)	32 (29)	0.1982
Number of publications	84 (34)	40 (36)	0.7226
Number of local/state/national presentations	79 (32)	38 (34)	0.6992
Number of funded grants	52 (21)	16 (14)	0.2042
No objective criteria required for advancement	25 (10)	5 (5)	0.1262
Other	19 (8)	17 (15)	0.0375

[a]Responding front-line clinical pharmacists reporting that they had defined criteria for career advancement (n=251).

[b]Responding managers/administrators reporting that they had defined criteria for career advancement (n=111).

[c]Yates chi-square test, df = 1, corrected for continuity.

Table 6. Mentoring Activities Offered to Front-Line Clinical Pharmacists (n=830), from Their Perspective

Mentoring Activity	Prevalence of Offering to Front-Line Clinical Pharmacists (%)
No mentoring activities are offered at current job	46
Training on precepting/mentoring students and residents	28
Training on presentation skills, opportunities to make presentations	25
Cross-training on new clinical service	22
Clinical research training	17
Advice on career advancement	17
Shadowing advanced clinical pharmacists	15
Training on writing skills and manuscript preparation	13
Management training	10
Tips on work-life balance	10
Advice on job selection and career planning	9
Tips on salary negotiations	2

Table 7. Importance of Mentoring Activities, as Judged by Front-Line Clinical Pharmacists[a]

	% indicating important[b] n (%)
Training on precepting/mentoring students and residents	331 (74)
Tips on work-life balance	318 (71)
Training on presentation skills, opportunities to make presentations	310 (69)
Advice on career advancement	289 (65)
Cross-training on new clinical service	285 (64)
Training on writing skills and manuscript preparation	280 (63)
Clinical research training	261 (58)
Shadowing advanced clinical pharmacists	252 (56)
Advice on job selection and career planning	226 (50)
Tips on salary negotiations	222 (50)
Management training	154 (34)

[a]On a scale of 1–5, with 1 being least important and 5 being most important.

[b]% important = percentage of respondents indicating a score of 4–5.

Table 8. Challenges and Barriers to Rewards and Advancements for Clinical Pharmacists

Challenges/Barriers	Front-Line Clinical Pharmacists (n=830) n (%)	Administrators/Managers (n=296) n (%)	p value[a]
Lack of clear reward and advancement structure for qualified clinical pharmacists who are positively impacting patient care and the institution	413 (50)	139 (47)	0.0246
Lack of understanding of clinical pharmacy and clinical pharmacy roles by departmental and institutional leaders	380 (46)	93 (31)	< 0.0001
Pharmacy department structure/staffing not designed to support a clinical vision	296 (36)	97 (33)	0.4096
Shortage of qualified pharmacists for clinical roles of increasing responsibility	150 (18)	74 (25)	0.004
Financial limitations	153 (18)	109 (37)	< 0.001
Overall pharmacist shortage	93 (11)	47 (16)	0.047
Shortage of clinical pharmacy leaders	84 (10)	55 (19)	0.0132
Insufficient funds for educational	51 (6)	32 (11)	0.0121

opportunities			
Other	31 (4)	22 (7)	0.0156

[a]Yates chi-square test, df = 1, corrected for continuity.