



INTRODUCTION

- The Clinical Pharmacist Practitioner Act became effective in North Carolina on July 1, 2000³.
- This legislation allowed pharmacists, meeting certain requirements, to enter a collaborative agreement⁴ with a supervising physician where the pharmacist could make adjustments to drug therapy within an established protocol³.
- These pharmacists are called Clinical Pharmacist Practitioners (CPPs), and are licensed by both the North Carolina Boards of Pharmacy and Medicine³.
- As of March 2012, of the current 10,334 pharmacists licensed in North Carolina⁵, 90 are also licensed as CPPs.

OBJECTIVES

- Determine the successes and challenges of CPP practice, and why inactive CPPs have discontinued practice entirely.
- Establish an updated demographic of CPPs in North Carolina.
- Use data collected to encourage other pharmacists to develop CPP-based practices.
- Provide current CPPs a means of sharing ideas to improve their current practice.
- Use data collected to promote federal legislation that recognizes pharmacists as health care providers.

METHODS

- Listings of active and inactive CPPs were obtained from the Boards of Pharmacy and Medicine, which made up the study participants.
- A survey was sent electronically to 84 active and 32 inactive CPPs to determine qualifications, experience, practice characteristics, successes and challenges of their CPP practice.
- Inactive CPPs were additionally asked why they left CPP practice.
- The survey was sent out three times to further encourage non-responders.
- Respondents could make more than one selection for many of the questions.

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- Dennis BH, for the North Carolina Association of Pharmacists. An overview of the clinical pharmacist practitioner in NC. Available at: www.ncpharmacists.org. Accessed February 11, 2012.
- Collaborative Drug Therapy Management is defined in Hammond RW, Schwartz AH, Campbell MJ et al. Collaborative drug therapy management by pharmacists-2003. *Pharmacotherapy* 2003; 23: 1210-1225.
- North Carolina Board of Pharmacy. Census of Registrants, Fiscal Year 2011. Available at: www.ncbop.org. Accessed February 11, 2012.

RESULTS

Qualifications (N=54 (Active), N=22 (Inactive))

	Active (%)	Inactive (%)
Doctor of Pharmacy	50 (92.5)	18 (81.8)
Residency	38 (70.3)	15 (68.1)
BPS Certification	27 (50.0)	7 (31.8)
BS Pharmacy	22 (40.7)	8 (36.3)
Other Certifications	20 (37.0)	11 (50.0)
BS (Any discipline)	13 (24.0)	3 (13.6)
Fellowship	4 (7.4)	0
MS (Any discipline)	2 (3.7)	0
MBA	2 (3.7)	1 (4.5)
MS Pharmacy	1 (1.8)	1 (4.5)
MPH	1 (1.8)	0

Experience

	Active (%)	Inactive (%)
Ambulatory Care	41 (75.9)	14 (63.6)
Hospital	33 (61.1)	9 (40.9)
Community	31 (57.4)	17 (77.2)
Long Term Care	10 (18.5)	1 (4.5)
Industry	1 (1.8)	3 (13.6)

Areas of CPP Practice

	Active (%)	Inactive (%)
Anticoagulation	34 (62.9)	13 (59.0)
Hyperlipidemia	27 (50.0)	14 (63.6)
Diabetes	25 (46.2)	12 (54.5)
Hypertension	18 (33.3)	10 (45.4)
MTM	14 (25.9)	5 (22.7)
Smoking Cessation	14 (25.9)	3 (13.6)
Asthma	10 (18.5)	4 (18.1)
COPD	9 (16.6)	2 (9.0)
Pain Management	8 (14.8)	2 (9.0)
Osteoporosis	7 (12.9)	3 (13.6)
Oncology	6 (11.1)	0
Obesity	5 (9.2)	3 (13.6)
Heart Failure	4 (7.4)	2 (9.0)
Mental Health	4 (7.4)	1 (4.5)
Infectious Diseases	1 (1.8)	0
Epilepsy	1 (1.8)	0

Most Common Successes

	Active (%)	Inactive (%)
Expanded scope of practice	26 (48.1)	8 (36.3)
Improved patient care outcomes	22 (40.7)	15 (68.1)
Creation of a model of practice for learners	19 (35.1)	5 (22.7)
Improved efficiency of health care services	19 (35.1)	11 (50.0)
Increased career opportunities	7 (12.9)	8 (36.3)

Most Common Challenges

	Active (%)	Inactive (%)
Billing for Services	30 (55.5)	11 (50.0)
Reimbursement	20 (37.0)	8 (36.3)
Acceptance by other health care providers	11 (20.3)	3 (13.6)
Work Overload	5 (9.2)	3 (13.6)
Documentation and paperwork	4 (7.4)	3 (13.6)

Why CPPs Left Collaborative Practice (Inactive)

	Inactive (%)
New position that did not require CPP licensure	12 (54.5)
Insurmountable challenges that made it difficult to continue	3 (13.6)
Moved from North Carolina	3 (13.6)
Retirement	1 (4.5)
No longer required CPP licensure for current position	1 (4.5)
Supervising physician retired	1 (4.5)
Could not identify benefit in continuing	1 (4.5)

CONCLUSIONS

- Although CPPs enjoy opportunities such as expanded scope of practice, improved patient care outcomes, and the creation of a model of practice for learners, the ability to bill for services and reimbursement by third parties are the largest barriers to maintenance of, or growth within a CPP practice.
- Obtaining a new practice position that did not require a CPP licensure was the most common reason why inactive CPPs discontinued practice, followed by insurmountable challenges that made it difficult to continue practice.
- Of our five objectives, the last three have yet to be met. Data collected from this study, however, will be utilized to accomplish these objectives in the months ahead.