

# Hospital and Community Pharmacists' Attitudes Towards Clinical Pharmacy

Linda J. Muzzin, Roy W. Hornosty and Gregory P. Brown

## ABSTRACT

*This longitudinal study compared the attitudes of the Class of 1983 at the University of Toronto toward clinical pharmacy seven years after graduation with those they expressed at the point of graduation in 1983. Over three quarters of the original class responded by indicating agreement or disagreement with statements (on a 5-point scale) about clinical pharmacy in 1983 and 1989. While there was little difference between those who became hospital pharmacists versus those who became community pharmacists at the point of graduation, seven years later, the hospital pharmacists were significantly more favourable than their colleagues toward drug consulting aspects of clinical pharmacy. The community pharmacists were significantly more favourable than their colleagues toward patient counselling aspects of clinical pharmacy. It is concluded that the work setting has influenced these different preferences for how the ideal of clinical pharmacy is interpreted. We offer a possible explanation for the consistently positive, if divergent, orientations towards the ideal of clinical pharmacy.*

**Keywords:** clinical pharmacy, drug consulting, patient counselling,

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## RÉSUMÉ

*Cette étude longitudinale compare le point de vue des diplômés de 1983 de l'Université de Toronto sur la pharmacie clinique à l'obtention de leur diplôme et sept ans plus tard. Les trois quarts des membres originaux du groupe ont indiqué dans quelle mesure ils étaient d'accord ou non (échelle de 5 points) avec certaines déclarations sur la pharmacie clinique en 1983, puis en 1989. Bien qu'on note peu de différence entre ceux qui ont choisi la pharmacie hospitalière plutôt que la profession de pharmacien communautaire à l'obtention de leur diplôme, sept ans plus tard, les pharmaciens d'hôpitaux penchaient sensiblement plus vers l'aspect «consultation sur les médicaments» de la pharmacie clinique, tandis que leurs collègues des pharmacies communautaires favorisaient davantage l'aspect «conseils au patient». On en conclut que le milieu de travail exerce une influence sur les préférences quant à la manière dont l'idéal de la pharmacie clinique est interprété. Nous proposons une explication à des orientations positives aussi cohérentes, quoique divergentes, de l'idéal de la pharmacie clinique.*

**Mots clés:** conseils au patient, consultation sur les médicaments, pharmacie clinique.

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## INTRODUCTION

The concept of "clinical pharmacy" is now well established in the minds of most pharmacists in North America. Schools of pharmacy have built into their curricula full complements of courses and field placements designed to equip the pharmacists of the future with the knowledge and skills needed to pursue this new professional ideal<sup>1</sup>. This shift in pharmaceutical education, from a focus on the preparation and

dispensing of pharmaceutical products to an emphasis on patient care, is envisaged as bringing considerable benefits to the profession. As one educator has argued, the clinical movement will help to reunite pharmacy education and practice, restore social value to pharmacy practice, and re-establish pharmacy's status as a profession<sup>2</sup>.

Whether today's graduates are sufficiently prepared to fulfil this mission is not entirely clear at this

time. In addition to acquiring the skills and knowledge needed to perform clinical functions, pharmacy graduates must also understand the social and social-psychological aspects associated with the performance of this new role. Hepler has suggested that pharmaceutical education can contribute to reprofessionalization by addressing the following four issues: "the nature of the professions' relationship to society," "the cognitive and attitudinal barriers

to asserting authority and accepting responsibility," "pharmacy's effectiveness in drug use control," and the need to "devise methods of evaluating the competence of students on all three dimensions (knowledge, skill, and attitude) and [to] modify its processes based on those evaluations"<sup>2</sup>. It is clear that part of this educational agenda, described in more detail in American Association of Colleges of Pharmacy documents<sup>3</sup>, would include research, scholarship, and teaching related to attitudes of graduates toward clinical pharmacy.

In approaching the question of attitudes toward clinical pharmacy, it is important to note that there is a lack of consensus among pharmacists regarding the application of the concept to clinical practice<sup>4</sup> in spite of growing consensus that clinical pharmacy (or its 1990s version, "pharmaceutical care") is the wave of the future. It is comprised of a plurality of functions<sup>2</sup>, and the motivations and attitudes associated with these functions may be different. For example, graduates who derive considerable satisfaction from counselling patients may be less inclined to engage in physician consulting or public education. Further, the attitudes toward these functions may well be shaped differently in different work settings. Research into this question is clearly lacking and the findings reported here are intended to contribute to an understanding of this issue.

This research is also of interest to sociologists, who have long emphasized the significance of attitudes and values in the education and training of professionals, a process they refer to as "professional socialization"<sup>5,6</sup>. This term refers to the acquisition and shaping of the individual's professional identity, together with the values,

attitudes, and beliefs that form the occupational sub-culture during the formal training period and the early years of professional practice. In their research on students in medicine, law, nursing and dentistry, sociologists have generally found that disillusionment and cynicism tend to set in when budding professionals begin to face the exigencies of actual practice, often during clinical placements in the senior years of the formal training programme<sup>7-11</sup>. Research on pharmacy students and graduates is generally consistent with these findings<sup>12-16</sup>. This has prompted some sociologists to conclude that the waning of idealism is inherent in professional socialization processes.<sup>7</sup> The significance of the research reported in this article is that the findings are contrary to the general results of professional socialization studies. That is, they show that University of Toronto graduates from the Class of 1983 remain idealistic seven years after graduation, although subsets of the class express this idealism differently, depending upon their current work setting.

The findings are derived from a follow-up to a study of the professional socialization of undergraduate students (the Class of '83) from second year to graduation from the four-year Bachelor of Science in Pharmacy Programme at the University of Toronto. The original research employed a variety of methodological approaches—participant observation, group discussions, structured and unstructured interviews, solicited and unsolicited written comments, written documents, and formally administered questionnaires.

## DATA AND METHODS

The research was undertaken within the theoretical perspective of symbolic interactionism. The

method was qualitative and inductive, whereby ideas, themes, hypotheses, and eventually theory are allowed to "emerge" from an analysis of data derived from natural settings<sup>17</sup>. Rather than outlining and testing specific hypotheses established *a priori*, the researcher encouraged students to freely express their views about their experiences in pharmacy school and their thoughts about the profession. Statements pertaining to clinical pharmacy and the state of the profession, initially derived from field notes, informal discussions, and written comments obtained during early phases of the research, were incorporated into a multi-purpose questionnaire, which was administered to the cohort during the final two years of the study. In many cases, these statements are verbatim quotations of students (Appendix A). No attempt was made at this time to construct a scale or more formal measure of commitment to clinical pharmacy. Respondents were simply asked to indicate on a five-point scale the extent to which they agreed or disagreed with each of these statements. Clearly, this research is limited by the range of questions that emerged from the natural setting, but, on the other hand, it probably reflects more accurately the concerns of the students at that time.

The same questions were included in the follow-up questionnaire administered to the cohort during the latter part of 1989 and the early part of 1990, between six and one-half and seven years after graduation from pharmacy school. The questionnaires were coded to enable the researchers to compare the responses of each member of the cohort when he or she was a student with those recorded on the questionnaire to test for individual changes in attitudes toward clinical

cal pharmacy. Of the original cohort of 160 students, 125 graduated in 1983, and of these, 120 completed all three of the major questionnaires in the original study. The follow-up questionnaire (Appendix A) was sent to all graduates who could be located which yielded 93 returns, or 77.5% of the pharmacists who completed the original study. The research reported here focuses only on those respondents who were employed either as hospital pharmacists (n = 23) or as community pharmacists (n = 58) at the time of completing the questionnaire. The analysis is further limited to those practising pharmacists who answered the same questions in both periods. (Table I).

In the original study, Hornosty found that professional idealism (as expressed in attitudes toward clinical pharmacy), rather than waning, was actually enhanced during exposure to clinical settings in the senior years of the programme<sup>18</sup>. He attempted to identify some of the factors in the professional socialization process that may have played a part in producing these unusual findings. Clearly, if pharmacy could understand these factors, it might be able to inculcate professional ideals that are not attenuated by the exigencies of actual practice, and therefore have a lasting, beneficial effect on the practice of the profession.

The follow-up study was designed to determine whether the responses of the members of the Class of '83 to their clinical placements in the senior years was a true test of the general hypothesis that idealism wanes in the face of the exigencies of actual practice. The findings showed that faith in the ideal of clinical pharmacy indeed persisted even after seven years of practice, and in some cases was actually enhanced<sup>19</sup>.

Table I: Work Setting and Attitudes Toward Clinical Pharmacy: 1983 and 1990

Item: <sup>a</sup>		Mean Values:		Diff.	MANOVA Pos./ Time <sup>b</sup>	N
		1983	1990			
Wave of the Future(1)	Comm.	4.33	3.98	- .35	.028*	58
	Hosp.	4.44	4.70	+ .26		23
Important to Communicate(2)	Comm.	3.88	3.93	.05	.632	57
	Hosp.	3.79	3.65	- .13		23
Too Much Clin. in Pharm. School(3)	Comm.	2.33	1.88	- .45	.919	58
	Hosp.	2.04	1.57	- .47		23
Counsel. Most Important(4)	Comm.	3.62	4.12	+ .50	.048*	58
	Hosp.	3.91	3.73	- .18		22
Rather Counsel than Consult (5)	Comm.	4.00	3.82	- .18	.001*	56
	Hosp.	3.52	2.35	- 1.17		23
More M.D.'s are Aware(6)	Comm.	3.37	3.11	- .26	.012*	57
	Hosp.	3.48	4.04	+ .56		23
Not Feasible to Counsel in Comm.(7)	Comm.	2.66	2.26	- .40	.049*	55
	Hosp.	2.48	2.76	+ .28		21
Av. Pharm. Does Good Job(8)	Comm.	2.51	3.26	+ .75	.001**	53
	Hosp.	2.86	2.41	- .45		22
Public Would Consult Pharm.(9)	Comm.	4.14	4.25	+ .11	.063	56
	Hosp.	4.32	3.96	- .36		22
Public Has Good Understanding(10)	Comm.	2.07	2.50	+ .43	.295	56
	Hosp.	1.74	1.87	+ .13		23
Public Image = "pill counter"(11)	Comm.	3.95	3.32	- .63	.017*	56
	Hosp.	3.68	3.86	+ .17		22
Prof. Status Increasing(12)	Comm.	3.98	3.67	- .31	.612	52
	Hosp.	4.00	3.55	- .45		22

a Numbers in parentheses refer to Questions in Appendix A.

b Test of significance of differences between changes by position over time.

\* p < .05: significant at .05 level or better.

\*\* p < .01: significant at .01 level or better.

In an attempt to construct a composite measure of professional idealism using the items in the questionnaire, it became evident that the clinical ideal was not of a single piece, but rather consisted of several dimensions that appeared to vary somewhat independently. The question arose whether different populations within the cohort might be more inclined to some rather than other aspects of clinical pharmacy. In particular, would different work settings foster or inhibit the de-

velopment of specific attitudes toward the different aspects of clinical pharmacy? The remainder of this paper is devoted to an analysis and discussion of this issue.

Except for missing cases, the study cohort comprises the population of students in the Class of '83. Missing cases include those who did not answer particular questions, and those not employed in community or hospital pharmacy. The statistical analysis of the data is comprised of t-tests of

differences in mean item responses of hospital and community pharmacists in 1983, the year they graduated. Repeated measures multivariate analysis of variance (MANOVA) is used to test for significant differences in the magnitude and/or direction of change in attitudes of hospital versus community pharmacists between 1983 and 1990.

Responses to the twelve statements noted in the Appendix were assigned values from 1 to 5, with the highest value assigned to those who "Agree Strongly" and the lowest value given to those who "Disagree Strongly". The mean scores obtained for community and hospital pharmacists for each item in both 1983 and 1990 are shown in Table I. Values above 3.00 represent agreement with or affirmation of a statement, while values below the neutral point represent disagreement. Differences between the 1983 and 1990 scores can be used as a measure of change in attitudes and perceptions; differences preceded with a "+" sign reflect an increase in agreement with a statement (including statements phrased in the negative). Differences marked with a "-" sign signify a decrease in agreement or increasing disagreement.

## RESULTS

MANOVA F-test probabilities based on differences in scores between community and hospital pharmacists in 1983 showed no significant differences between those who would eventually become hospital pharmacists and those who would eventually become community pharmacists, except for one item (#10,  $F = .036$ ,  $p < .05$ ). At follow-up, however, a number of significant differences emerged between the groups. The significance of the differences between the changes undergone by the two groups over the seven-

year period are shown in Table I.

Table I shows that, at the time of graduation, there was very little difference between those who would eventually work in hospital and those who would eventually work in community pharmacy in their attitudes towards the new expanded role of the pharmacist. A statistically significant measure was found with regard to only one item (Item #10). However, seven of the twelve items produced statistically significant measures of the differences in changes over time between the two groups. Thus, community and hospital pharmacists responded quite differently to the same attitudinal questions seven years after graduation. Hospital pharmacists were more likely to affirm Items #1, #6, #7, and #11, while withdrawing support for Items #4, #5, and #8. The opposite tendency was observed with regard to community pharmacists, except that the direction of change with regard to Item #5 was the same, but not nearly as intense as that of the hospital pharmacists.

## DISCUSSION

These data show that the work setting was related to changes in attitudes toward clinical pharmacy. Hospital pharmacists, working in an institutional setting where they have considerable contact with doctors and other health professionals, oriented more to the drug consulting aspects of clinical pharmacy and changed their attitudes and perceptions accordingly. From the point of graduation, they became less inclined to feel that counselling was the single most important function of the pharmacist (Item #4), and shifted their preferences to drug consulting (Item #5; 1990  $X < 3.00$ ). They also became more optimistic about the prospects of developing a highly professional relationship

with doctors (Item #6). On the other hand, they tended to orient away from the public; they lost some faith in the prospects of counselling in community pharmacy (Item #7) and in the public's willingness to seek pharmacists out for information and advice (Item #9), although the latter was not quite statistically significant ( $p = 0.063$ ). Thus, they increasingly felt that the public's image of the pharmacist was not very favourable (Item #11). They also grew increasingly critical of the practice of the profession, believing strongly that their colleagues, the majority of whom were in community pharmacy, did not do a good job counselling patients (Item #8). Yet, hospital pharmacists became more inclined to feel that clinical pharmacy was the "wave of the future" (Item #1), though it became evident that their vision of clinical pharmacy was different from that of the community pharmacist.

On the other hand, the community pharmacist, working more closely with the public, oriented more positively to the patient counselling aspects of clinical pharmacy. Patient counselling became even more important as a central function of the pharmacist (Item #4) for those in community practice, although community pharmacists also retreated a bit in their preference for counselling (Item #5). Their faith in establishing a satisfactory working relationship with doctors waned (Item #6). They placed their hope and faith in their colleagues, especially those practising in community pharmacy (Item #8), and they felt that the public's image of the pharmacist was improving (Item #11). And while Items #10 and #9 did not produce statistically significant measures of change, they too suggested that community pharmacists came to view the public

more positively.

For the cohort in question, work setting appears to have had a salutary effect on attitudes toward clinical pharmacy, though in a highly selective way, promoting those attitudes and perceptions that reflect the work environment of the specific setting and in some cases, discouraging those that favourably characterize other settings.

These findings are clearly contrary to the results of previous research, which, as noted above, have repeatedly shown that cynicism and realism tend to set in when young professionals face the exigencies of the work place. What is different about the Class of '83 that produces these unusual findings? While it is not possible to provide a conclusive explanation for these results, it is possible to suggest an hypothesis for further research.

In their study of clerkships in two different hospitals in the United States, Broadhead and Facchinetti<sup>13</sup> found that pharmacy students became sceptical about the prospects of practising clinical pharmacy, particularly during hospital rounds with physicians and medical and nursing students. They concluded that, although pharmacy students possessed the knowledge and skill required to make a contribution to the health team, they did not possess the interpersonal skills in role-making and interprofessional negotiations to become accepted as full-fledged members. As we have noted elsewhere<sup>19</sup>, the clinical pharmacy programme at the University of Toronto is organized quite differently from the clinical clerkship described by Broadhead and Facchinetti. First, efforts were made during role-playing sessions at the University of Toronto to

develop the requisite interpersonal and communication skills needed to carry out the clinical role. Second, the Canadian students, unlike their American counterparts, were "eased" into the hospital setting under the tutelage of hospital pharmacists who showed them how to enact the clinical role. They tended not to be in situations where they might be inclined to compare themselves negatively with medical students. Third, the emphasis in the American programme was on drug consulting, while that of the Canadian programme was on patient counselling. Students in the Class of '83 developed considerable confidence in their ability to perform the patient counselling role (92.0 % stated that their education prepared them well for patient counselling, compared to 68.9 % for drug consulting). The difference in power between the pharmacist and the doctor, and between the pharmacist and the patient might help to explain the success of the programme. In any event, it is not unreasonable to suggest that once this confidence is developed it can more easily be extended, at least by some, into the drug consulting role (note that both community and hospital pharmacists shift their preferences in the direction of drug consulting; Table I, Item #5).

This explanation is highly speculative, but it is worth taking seriously as an hypothesis. The research carried out on the Class of '83 provides good reason to suspect that the development of clinical placement programmes in schools of pharmacy, in conjunction with the formal university curriculum, may play a decisive role in shaping positive attitudes toward what is now recognized as the "wave of the future". ☒

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#### Appendix A: Selected Questions, Follow-up Study Questionnaire, Class of '83, University of Toronto

##### A) Attitudes and Perceptions of Pharmacy

Most of the remainder of this survey consists of questions about your general attitude towards pharmacy (not your specific experiences). I ASKED THESE QUESTIONS IN 1983 and am interested in any changes in attitudes. Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate [category].

##### Code

agree strongly (=SA)  
 agree moderately (=MA)  
 neutral in opinion (=N)  
 disagree moderately (=MD)  
 disagree strongly (=SD)  
 no opinion or don't know (=DK)

1. There is little doubt that clinical pharmacy (drug counselling, direct patient care, etc.) is the wave of the future and will significantly change the practice of the profession.
2. To be a good pharmacist it is more important to be able to communicate effectively with patients than to possess extensive knowledge about the latest developments in pharmaceutical sciences.
3. There is too much emphasis placed on the clinical aspects of pharmacy (drug counselling, direct patient care, etc.) in pharmacy school.
4. The single most important function of the pharmacist is to counsel patients regarding prescription-related matters and OTCs.
5. I think that I would rather counsel patients than be a drug consultant to the doctor.
6. More and more doctors are becoming aware that the pharmacist is a highly qualified expert in the field of drug therapy and are more and more willing to consult them (sic) for advice.
7. Drug counselling is really not feasible as a general practice in most community pharmacies.
8. The average pharmacist in practice today does a good job counselling patients regarding prescription medications and OTCs.
9. The public would be very willing to seek information and advice from a pharmacist if it just knew how much the pharmacist really knows about drugs and related matters.
10. The public has a reasonably good understanding of the work a pharmacist does and the knowledge and training required to become a pharmacist.
11. Despite the public relations campaigns the public image of the pharmacist is still largely that of a "pill counter" and "bottle labeller".
12. Pharmacy's professional status in the community is increasing and will continue to increase in the future.