Patient Involvement in Pharmaceutical Care: A Conceptual Framework[1]

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The pharmaceutical care movement holds an important opportunity for dialogue about the relationship of the pharmacist and client. This paper examines the importance of providing coursework specifically to promote a therapeutic alliance between the client and pharmacist—two of the most critical and yet underused resources for improved health care outcomes. It introduces a more participatory model of medication management which acknowledges the decision-making responsibility and power of the client in pharmaceutical care. The first goal of the paper is to suggest the feasibility and importance of a participatory model. The second goal is to discuss implications for incorporating this model of pharmaceutical care into our PharmD curricula. The third goal is to discuss a few key challenges for implementing a Client-Centered Model of pharmaceutical care with the intention of fostering dialogue. It is hoped that such dialogue will promote a more integrated, cohesive curricula to prepare pharmacists to offer pharmaceutical care.

INTRODUCTION

The advent of the pharmaceutical care movement holds an important opportunity for dialogue about the relationship of the pharmacist and client. Yet pharmaceutical care presents as much of a challenge to Schools of Pharmacy as it does to practitioners in the field. Because of their diverse training and backgrounds faculty hold competing assumptions about what skills are most needed for the provision of pharmaceutical care. Those schooled and working during the clinical pharmacy movement tend to view pharmaceutical care in the context of their hospital based therapeutic specialization models. Those faculty whose expertise is based more in community settings tend to focus more on the generalist, interpersonal philosophies and skills underpinning the nature of the client-pharmacist relationship. Thus despite widespread acceptance of the pharmaceutical care framework, debates abound regarding the relative importance of different types of courses and experiential training for the PharmD candidates across campuses nationally.

The pharmaceutical care framework itself is somewhat ambiguous on the nature of the pharmacist-client relationship. Hepler and Strand(1) define pharmaceutical care

as,"..the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life." Strand and her colleagues attempt to include the patient in a more active role by indicating the pharmacist does the following steps of pharmaceutical care with the patient:
- determine and interpret necessary data;
- for each drug-related problem...determine the desired outcome;
- decide the best drug, dose, formulation, regimen, schedule, etc.;
- implement and document the decisions made(2).

The profession's commitment to the importance of the client role is further reflected in the Code of Ethics For Pharmacists adopted in 1994 by the membership of the American Pharmaceutical Association:
- "A pharmacist promotes the right of self-determination and recognizes individual self-worth by encouraging patients to participate in decisions about their health"(3).

While the field has suggested the importance of clients taking an active role, translating this value into practice is the task ahead. This paper examines the importance of providing coursework specifically to promote a therapeutic alliance between the client and pharmacist—two of the most critical and yet underused resources for improved health care outcomes. It introduces a more participatory model of

Table I. Medical vs collaborative client-centered model[a]

Dimension	Medical model	Client-centered collaborative model
Definition of regimen goals	Emphasizes clinical status	Emphasizes client priorities, quality of life and clinical status
Regimen selection	Pharmacist defines	Client co-defines from options
Patient education focus	Increases regimen compliance	Increases client's ability to manage and monitor regimen
Drug monitoring	Pharmacist evaluates clinical outcomes and patient compliance	Client and pharmacist evaluate clinical outcomes and regimen problems/options
Self-care	Self-care largely ignored	Self-care integrated in consultation
Control and status	Pharmacist control and status enhanced	Client control and status enhanced

[a]Adapted from reference 4.

medication management which acknowledges the decision-making responsibility and power of the client in pharmaceutical care. The first goal of the paper is therefore to suggest the feasibility and importance of promoting a therapeutic alliance between clients and pharmacists. The second goal is to discuss implications and examples for incorporating this model of pharmaceutical care into our PharmD curricula. The third goal is to foster dialogue between faculty holding a range of views by identifying a few key challenges for implementing a Client-Centered Model of pharmaceutical care. It is hoped that this dialogue can promote more integrated, cohesive curricula to prepare pharmacists to offer pharmaceutical care.

THERAPEUTIC ALLIANCE: MEDICAL VS CLIENT-CENTERED MODELS

To examine the potential therapeutic alliance between client and pharmacist, this paper explores assumptions and implications of a Client-Centered Model versus a Medical Model applied to pharmaceutical care(4). While most pharmacist-patient interactions fall along a continuum of these models, to clarify the distinctions between either end of the spectrum and stimulate discussion. Table II contains a summary of the purest form of each of these models as though they are dichotomous.

A Client-Centered Model of care adopts the client's perspective(5). The central difference between the Client-Centered vs. Medical Model is how active the client is and how much the pharmacist's role is directed toward helping clients play this active role effectively. In this era where 70 percent of health care expenditures are for chronic conditions, there is often uncertainty in both diagnosis and treatment with the result that providers and clients are both partially and reciprocally knowledgeable[2]. Given this reality, in the Client-Centered Model, clients collaborate with the pharmacist to: (*i*) identify treatment goals; (*ii*) choose from regimen options; (*iii*) monitor symptoms and evaluate regimens; and (*iv*) revise regimens if problems occur(4). The pharmacist is a consulting partner in the decision process influenced by the client's desires and abilities, generating options based on these desires as well as the pharmacist's expertise. While the Medical Model enhances the control and status of the pharmacist, the Client-Centered Model enhances the control and status of the client.

How active a role health care providers want for patients strongly influences the nature of their client assessment, regimen planning, education, and monitoring. Likewise, how active a role clients want also influences this process. This will vary dramatically with a client's condition, expectations and resources at the site(4). Thus, the Client-Centered Model depends on pharmacists assessing each client's needs and preferences and tailoring their interaction accordingly. The following section delineates steps in pharmaceutical care as they would be reflected in a School of Pharmacy Client-Centered Model of education. Each step's curricular implications will be discussed before broader educational resource and practice issues are addressed.

Defining Regimen Goals

Defining *regimen goals* is the first step in selecting a therapeutic strategy. From a client-centered approach, each ensuing consultation step depends on having accurately identified the client's most desired outcomes. With increased self-care as well as reclassification of prescription drugs to nonprescription status, pharmacists are in a key position to help clients clarify regimen goals and priorities carefully.

The interaction can take many forms but from a client-centered perspective it is directed more toward assessing a client's goals and then helping the client make informed decisions about their goals. Emanuel and Emanuel(6) suggest, depending on the desire and need of clients, a provider's help may take many different forms: (*i*) providing clients with information relevant to their goals; (*ii*) elucidating what the client really wants; (*iii*) helping the client determine and choose the health-related values which can be realized in the clinical situation.

Because most interventions affect a patient's quality of life, asking for the patient's priorities and treatment goals could alter both the regimen selection and evaluation of subsequent regimen outcomes(7). There is growing recognition that patient priorities for treatment outcomes and quality of life should influence therapeutic goals and treatment approaches, particularly for patients with chronic conditions(8-11). Consistent with this, Bentley and colleagues(12) have begun piloting health quality of life assessment in community pharmacy settings. Quality of life goals may lead clients to select one regimen over another when outcomes and tradeoffs are openly discussed.

In considering implications of client-centered goal setting for pharmacy education, improved methods of teaching assessment skills is key. Question-asking appears to be a specific weakness in pharmacist training as documented in a study of 344 pharmacy personnel-patient interactions in eight New Mexico community pharmacies. Sleath(13) found that pharmacists or interns interacted with patients in only 57 percent of the observed encounters and asked drug therapy questions during only 36 percent of their interactions. Ninety three percent of the questions related to drug

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[2]Holman H., "How is managed care affecting quality and access for people with chronic and/or disabling conditions?" presented at 14th Annual Association For Health Services Research meetings, Chicago IL(June 1997).

therapy were closed rather than open-ended. This study suggests a need for pharmacy school curricula to offer more effective training regarding question-asking behavior throughout clinical and social administrative sciences courses.

It may be that assessment represents an important area of confusion between different disciplines within our schools of pharmacy. Assessment is a term which traditionally referred to physical assessment in the clinical pharmacy movement. In the pharmaceutical care movement, the meaning of assessment expands to refer to the identification of patient priorities, lifestyle and patient education needs. Our curricula need to integrate both aspects of assessment from the beginning to the end of a student's career, particularly where access to patients allows students to practice integrating assessment skills from both a physical and psycho-social perspective.

Regimen Selection

Regimen selection can be a collaborative process. Fink(14) argues "there is no such thing as a standard regimen for a standard patient." Rather, there is a need to tailor regimens to patient beliefs, personality, lifestyle, and priorities(15,16). Shared decision-making, whether of prescription or nonprescription therapies, is not part of the traditional medical model. However, it is very much part of a client-centered version of pharmaceutical care. In the latter, the pharmacist helps the client design regimens responsive to the client's goals. This includes adapting regimens in terms of number of medications; number of doses per day; selecting brand or generic medications which maximize tradeoffs of cost, side effects and quality of life; and clinical outcomes which are highest priority to the client. An example of one structured, collaborative approach implemented in practice is the *PREPARED checklist* in which patients and providers weigh the benefit, costs and risks of one treatment option against another in relation to the patient's goals[3].

Other providers have evaluated giving clients their choice of different types of therapies or medications to reduce cardiovascular risk and control blood pressure(17,18). Based on their experience with side effects, lifestyle convenience and perceived benefits such as pain management, clients choose their preferred medication. In our own longitudinal work with arthritis patients, we have tracked the extent to which prescribers are moving in this direction already by having clients take prescription medications on a PRN basis[4]. Clients with arthritis, monitor pain and side effect symptoms to calibrate their own dosing. Pharmacists can use a similar collaborative process of regimen selection, preparing clients to monitor symptom benefits as well as manage and track possible adverse effects. This then becomes a foundation for choosing between nonprescription options such as analgesics increasingly reclassified to OTC status. If prescribing authority is delegated to pharmacists within the site, there is an opportunity for even broader use of this approach.

In considering implications of client-centered regimen setting for pharmacy education, the possibility of client choice needs to be discussed, modelled and practiced. Client preferences can be assessed, acknowledged and incorporated into drug selection and regimen design (dose and schedule). Several parameters are relevant in the drug regimen selection: (*i*) modality (injection, liquid, pill form); (*ii*)

drug product (choosing among several brands); and (*iii*) regimen (schedule, number of doses per day)(19,20). A medication's perceptual properties may have important and specific meaning to patients that support or detract from adherence. Shape, size, color, and taste of medications may be important for a particular client. If so, it would be especially important to identify preferences before assuming that any brand will be used equally well. Quality of life issues including lifestyle priorities as well as product priorities can lead to very different regimen decisions.

Designing realistic schedules which maximize convenience and minimize side effects can impact considerably on clients' quality of life[5]. Exercises and practice situations offering students direct contact with clients can both provide insights and reinforce problem-solving skills needed to work out strategies incorporating patient preferences. Guest lectures, panels or feedback sessions with individuals who have chronic conditions or cultural perspectives different from the students can offer important perspectives as well as motivation for adopting more of a Client-Centered Model. Experiential clerkships are important as well. Their quality depends in large part on whether these sites offer professional models who incorporate patient perspectives into regimen planning and monitoring. Feasibility as well as skill questions can be addressed at the point at which students can see these models in practice.

Patient Education

Pharmacy practitioners and faculty share considerable consensus on the importance of patient education. In a recent NARD delphi survey of "expert" community pharmacists, 97 percent thought counseling patients to maximize their drug therapy outcomes was among the most important health care issues a pharmacist in a community/ambulatory practice will need to address in the 21st century(21). Patient education can take many forms as the pharmacist tailors information to meet an individual's priorities at initial and refill visits. Pharmacist-client pharmaceutical care encounters can easily range from 15 seconds to 15 minutes, although most will be brief. To the degree clients would like to monitor and document regimen problems and outcomes in order to help make regimen decisions, the pharmacist prepares them to do so in a Client-Centered Model. Recent studies suggest that educational interventions which pre are clients to consider choices are associated with significant increases in client knowledge, satisfaction, self-efficacy, increased question asking, and improved health outcomes, such as improved glycosylated hemoglobin(22-26).

In considering implications for Pharmacy curricula, the most critical communication process issue is whether students are learning to tailor their education to the individual patient's priorities and needs for information. Pharmacy Schools have had a tendency to teach patient education in terms of a list of topics which must be covered when a patient has an initial prescription. The danger with this approach is

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[3]Gambone J. C, Reiter R.C. and DiMatteo M.R., "Putting risk into perspective by a process of informed collaborative choice—The PRE-PARED checklist," Paper presented at the Open Conference, Communicating Risk To Patients, U.S. Pharmacopeial Convention, Reston, Va, September (1994).

[4]Chewning, B., "Pharmaceutical care outcomes: The patient role," Report to Agency For Health Care and Research, December (1996).

[5]Chewning B., "Strategies to promote self-management of chronic disease," American Hospital Association: Chicago, IL (1982).

that rather than encourage students to assess what people already know or want to know, students attempt to go down the list uniformly with patients like a rolling pamphlet. Given the limited time available for the pharmacist and at times limited attention of clients, a more effective approach is to individualize the interaction given the client's needs.

To encourage students to tailor their interactions to the individual patient's needs, at the University of Wisconsin we have introduced a simple process model[6]. The AAE Model helps students learn three simple steps: (*i*) Assess, (*ii*) Adapt, (*iii*) Evaluate. These steps in problem-solving are applied to patient consultation and regimen planning. Our hope is by focusing students' attention on question-asking and tailoring functions of the pharmaceutical care consultation, they will move toward a problem-solving approach to patient education with all patients.

The Indian Health Service counseling model offers a useful format to tailor the pharmacist's patient education to the individual client's knowledge level(27). In this counseling model, students learn to ask each patient what a doctor has already explained about: (*i*) the medication's purpose; (*ii*) how to take the medication; and (*iii*) what to expect from taking the medication. Pharmacists adapt their interaction based on clients' responses. If an individual understands the purpose and how to take the medication already, valuable time can be saved by not repeating this information.

Drug Monitoring

Drug monitoring is an important function of the pharmacist in both the Medical and Client-Centered models of pharmaceutical care. However, in the Client-Centered Model of pharmaceutical care the client becomes an equally important partner in monitoring feasibility and convenience of the regimen, side effects, and progress toward positive endpoints of the therapy. With or without a health care provider's help, patients often build personal models of what caused or exacerbates a condition and intentionally modify the regimen based on these perceptions(28-39). Since clients may monitor some signs inaccurately, pharmacists have an important function in preparing clients to monitor their regimens accurately. Pharmacy patron surveys suggest that side effect information is among the highest priority information that people want from their pharmacists(40). Pharmacists can help clients understand their symptoms and cues for action, both in terms of side effects and signs of progress toward achieving desired endpoints as well as side effects. Particularly in treating serious conditions, monitoring can enhance the individual's ability to anticipate and cope with medication side effects. The accompanying sense of control is especially important to clients with life threatening conditions.

To prepare students for client roles in monitoring will require that students become more comfortable discussing endpoints and somatic benchmarks indicating progress or problems. This includes both signs of potential benefits and side effects. Equally important is practice with existing questionnaires and logs which can help patients monitor their symptoms, as discussed by Wiederholt and Wiederholt in this issue. Pharmacists' therapeutic knowledge is critical along with a sensitivity to evaluating clients' interest and ability to monitor their condition and regimen.

In the Medical Model, evaluating patients' adherence is a crucial element of pharmacists' drug monitoring. Schedules of patients' monthly visits to pharmacies for their refills are documented in the patient profile which then become a record of the extent to which patients seem to be complying with their regimens. From a Client-Centered Model however, monitoring is directed less at evaluating the patient's behavior and more at evaluating problems with the regimen itself. For example, are there problems which make the regimen difficult or undesired by the client — side effects, inconvenient regimen schedule, lack of observable positive outcomes? Interventions to reduce problems are then documented for ongoing followup.

To the extent a pharmacist has developed a nonjudgemental, problem-solving relationship with the client over time, consultation about regimen problems becomes more open and effective(41). However, even if a pharmacist doesn't have this advantage, patient questionnaires such as the Brief Medication Questionnaire (BMQ) can help to structure a pharmacist's assessment of regimen problems[7]. Examples of the type of client information collected by the BMQ include special physical ability issues relevant to medication management (eg. problems with swallowing, opening caps, reduced vision), perceptions of the medication's value and side effects, patterns of missed doses (amount and time of the week). The goal is to help pharmacists use this information with clients to determine the best options to solve regimen problems.

Recent research in community pharmacies identified a greater number of client questions and concerns were voiced at the first refill visit than at the time the initial prescription was filled[8](42). Thus, students need help conceptualizing "return visits" as natural opportunities for helping deal with regimen problems as well as helping interested patients monitor their medications more effectively. At such visits the client can potentially use the pharmacist as a consultant to answer questions and concerns, interpret symptoms noticed, tailor or simplify regimens, generate therapy alternatives or revisit the tradeoffs involved in the regimen prior to a possible discontinuation decision.

Self-Care

Self-care is a dimension largely ignored in the Medical Model. Dean(43) notes that health professionals view lay care as supplemental to professional care in spite of the fact that,"... professional care is the supplemental form of care." In our research with arthritis patients, the majority of clients use prescription medication and some form of self-care(18). Although professionals often discuss self-care in terms of its potential dangers, Verbrugge and Ascione(44) found that people are both parsimonious and rational when caring for their symptoms.

The Client-Centered Model applied to pharmaceutical care acknowledges how involved clients are in self-care. Further, it suggests a potential role for pharmacists in the community as a source of consultation for self-care decision

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[6]Ganther J., Course syllabus handouts pharmacy 411, "Principles of social and pharmacy administration," University of Wisconsin School of Pharmacy, (Fall 1996).

[7]Svarstad B.L., "Recognizing noncompliance and barriers to compliance." Presented at the American Pharmaceutical Association meetings, San Diego, CA, (March 1992).

[8]Schommer J.C. and Wiederholt J.B., "The influence of prescription question asking on pharmacist-patient communication. " Presented at the Economic, Social and Administrative Science Section of the Annual Meeting of the Academy of Pharmaceutical Research and Science, American Pharmaceutical Association, Seattle, WA, March (1994).

making and product distribution. Over-the- counter medications are the most frequently reported self-care strategies(44). However, at this point, providers typically do not record a complete profile of patients' over-the-counter medications along with their prescription medications. Community pharmacists could help clients by collecting a complete configuration of self-care and prescription regimens for each client's patient profile, updating the profile at each visit. The pharmacist is then in a position to review whether there are any contraindications, duplication of active ingredients or interactions within the prescription and non-prescription therapies.

Pharmacy curricula, at this point, offer students far less background on nonprescription pharmacy products or other self-care items such as nutrition supplements or complementary alternative medicines than for prescription medications. Schools of Pharmacy need to ask whether graduates have the content and psycho-social knowledge to counsel clients effectively about self-care products which may be sold in their stores. If the answer is no, there is a need to re-examine the balance of coursework to integrate self-care therapies much more prominently. With the likelihood that an increasing number of prescription products will be reclassified to OTC status over the next decade, a far greater role for pharmacist consultation can evolve if students are taught to collect complete self- care and prescription information and counsel accordingly.

Shared vs. Exclusive Power

Shared vs. exclusive power in the client-pharmacist relationship is the largest difference between the Medical Model and Client-Centered Model of pharmaceutical care. In the extreme, the medical model retains the view that pharmacists' expertise justifies exclusive control over health-related decisions regarding medication regimens. Some faculty appear to endorse this view of moving pharmacy students almost into a medical practice model of a past era. This view overlooks the fact that clients exercise control over medication management as soon as they leave a pharmacy, clinic, or hospital encounter. Some do not fill a prescription(45), let alone follow the prescribed regimen. The lack of exclusive power by health providers is most obvious in the considerable self-care which precedes and follows any health visit to the pharmacy or clinic. The steps of setting goals, product selection, adapting the regimen to the client's lifestyle, implementing the regimen, monitoring and revising the regimen as needed depend on client participation and openness.

In considering implications of shared power between client and pharmacist for pharmacy education, perhaps the most important question is how our pharmacy curricula portrays clients. It is natural for any health profession to seek to expand its own status in relation to other health providers. However, this may be at the expense of clients. As Holman(5) suggests, in this era when providers and clients are both partially and reciprocally knowledgeable, shared decision- making is logical.

A useful question for framing curricula discussion is with whom do pharmacists have their primary contract. Is it the client, the physician, the insurer, the employer? The answer to this question has major implications for the practice of pharmacy in terms of protecting the rights to patient involvement and confidentiality when individual data requests are made by other professional groups. The answer
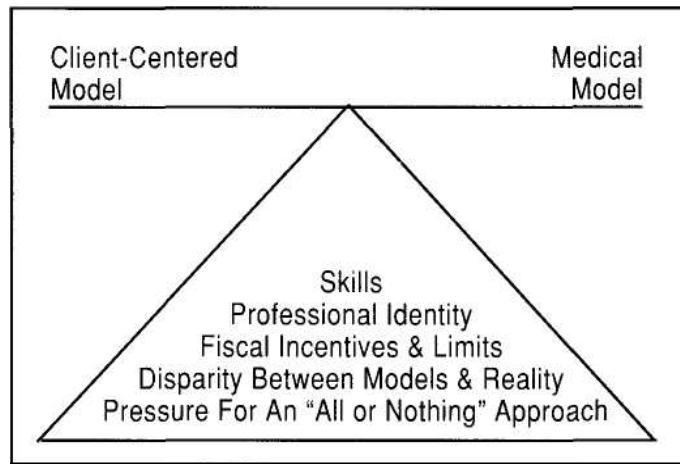

Fig. 1. Challenges for implementation of pharmaceutical care.

also suggests an important lense for evaluating how well Pharmacy School curricula reinforce the "covenant" between pharmacist and patient. A shared vision of pharmacists' roles with clients is essential to integrate skills into a consistent model of pharmaceutical care.

THE FURURE: CLIENT-CENTERED PHARMACEUTICAL CARE

Several factors are likely to affect whether pharmaceutical care is to be operationalized as a Client-Centered Model, as summarized in Figure 1. Each of these factors are discussed separately in the remainder of the paper to suggest strategies which may assist students in creating the hoped for paradigm shift in practice. While some of these factors fall outside the control of the Pharmacy profession, the most critical factors are within the purview of the profession. For years before pharmaceutical care was promoted, some community pharmacists offered client-centered consultation and service. Thus the question is less whether this model of practice is possible and more what might facilitate its wider adoption.

Skills

This paper has focused on skills students need to conduct client-centered pharmaceutical care. Regardless of which model of pharmaceutical care is endorsed, consensus on the importance of a subset of skills is needed across our various disciplines for an integrated curriculum. Some schools have achieved consensus through a zero-based budgeting approach to planning their PharmD programs. Others protected a status quo approach to courses historically taught by one division as opposed to another. In a survey of 66 Schools of Pharmacy, curriculum committee chairs cited faculty conservatism and departmental authority as concerns affecting the quality of curriculum planning. The ensuing report recommended that curriculum discussions focus on goals and transcend individual and departmental concerns(53). A key question in faculty deliberations regarding curricula is who should make the decisions? What type of expertise is needed to make the decisions? Do we need to have educational specialists and neutral facilitators of a curriculum planning process? If hospital based clinical faculty are included, should community based clinical faculty be included? What roles can clinical faculty versus physical science faculty versus social administrative science faculty play most effectively in planning curricula? Does any

one group have more 'moral' authority than another? Should any one group have more power than another reflected through composition on planning committees? How can leadership balance the input of all groups and lead to integration of a curricula rather than a fragmented series of individual courses within and across semesters?

Professional Identity

Professional identity constitutes the second major factor which will affect the extent to which a Client-Centered Model of pharmaceutical care is adopted. Professional role identity is important to reinforce both through a program's curricular and extra-curricular activities. The extent to which pharmacists believe that patient consultation is an important component of their professional identity, is one of the best predictors of the extent of actual patient consultation done by pharmacists(47). Hence, one can't underestimate the importance of the messages curricula and extracurricular activities give regarding pharmacists' professional identity, particularly as it relates to introducing and reinforcing the counseling role of pharmacists.

Perhaps the greatest challenge for preparing graduates to use the wealth of information and skills needed to create a paradigm shift to client-centered practice is to do this while building rather than depleting students' confidence. Schools of Pharmacy admit students with among the highest gradepoints the profession has ever seen. Standards for academic progress are extremely high as the PharmD programs expand coursework further. With increased expectations for these graduates, there is a need to critically evaluate the impact of curricula on students' belief that they can integrate and apply course material in practice. We need to ask and evaluate how well we are creating a confident as well as knowledgeable wave of new pharmacists to practice pharmaceutical care. Without their leadership and commitment to the profession the paradigm shift is not likely to occur.

Fiscal Incentives and Limits

Fiscal incentives continue to exert important constraints for how the pharmacy profession operationalizes its role. Particularly as we attempt to move pharmaceutical care into ambulatory settings, these incentives cannot be ignored. A recent study of model community practice sites documented that, despite their reputation for outstanding care, the sites were having financial difficulty sustaining their full models[9]. Third party reimbursers are starting to explore reimbursement for cognitive services, however, support from other quarters is needed if our students are to have models of client-centered pharmaceutical care. The majority of Pharmacy Schools have been slow to recognize the importance of supporting community based models of pharmaceutical care. Although many Schools continue to invest significant resources in hospital settings to train pharmacy students and students, the same has not occurred for community sites with some notable exceptions. Can Schools of Pharmacy afford not to allocate financial resources into training and ongoing fiscal support to achieve pharmaceutical care sites in the community?

Disparity Between Model and Reality

The dissonance between our students' educational and practice experience was acknowledged by the 1995-96 AACP Professional Affairs Committee(48). Basically, our students are entering the field before the pharmaceutical care model is in place. All too often, students' didactic coursework presents the pharmaceutical care model in its ideal form while students find themselves in settings limited by the realities of space, staffing, and older models of care. At many schools, this leaves students and faculty without the important anchor of experiential sites which embody the pharmaceutical care principles espoused in our curricula. The experiential portions of our curricula are a critical opportunity for the integration and confidence building practice of knowledge and skills for students. Since experiential sites need both training and financial support, schools will need either to redirect or expand resources to achieve the needed model sites.

It would be ideal to expose students through their experiential clerkship sites to systems and task allocation efficiencies that support pharmaceutical care initiatives. A variety of patient information storage and retrieval systems are available for use and more are being to developed to interface with dispensing computer systems used in community practice(49). Outcomes-based models and forms for developing and monitoring pharmaceutical care plans for selected patients have been developed(50,51), as have methods for standardized documentation and invoicing of pharmaceutical care provided(52,53). If experiential clerkship sites can provide tools and models for addressing barriers to the practice of pharmaceutical care, students will have far more understanding of realistic options to overcome the most common barriers to pharmaceutical care. Coursework and experiential practice need to reinforce the importance of problem-solving and acknowledge that achieving new models of care takes time, careful planning, and reallocation of resources.

To enter into collaborative partnerships with pharmacists, clients must know how to appropriately use their pharmacists as consultants. Yet when Carroll(54) reviewed the literature on consumer demand for patient-oriented services, he concluded that the lack of consumer demand for such services might be from a lack of any chance to evaluate or even become aware of these services because many pharmacists have not provided them. Since clients' question-asking appears to trigger the degree of pharmacist consultation[10](55) and physician consultation(56), there is a need for students to consider strategies for modifying clients' expectations and encouraging question-asking from clients. Despite evidence that clients underestimate pharmacists' pharmaceutical care roles, it appears that relatively inexpensive interventions can significantly increase clients' knowledge of pharmacists' cognitive services(39). Through their worksites, students need to see strategies for addressing this issue.

Pressure For An "All or Nothing" Approach

There is a tendency for pharmaceutical care to be viewed as an "all or nothing" venture in which the pharmacist must replace one model of practice with another. Because this is unrealistic for many providers and sites, it is useful to consider more carefully how to phase in a client-

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[9]Norwood, G.J., Sleath, B. and Caiola, S.M., ": A study of the costs and benefits to community pharmacies of implementing pharmceutical care," University of North Carolina, Chapel Hill NC (1997).

[10]Schommer J.C., "The roles of pharmacists, patients, and contextual cues in pharmacist- patient communication," Unpublished doctoral dissertation, University of Wisconsin- Madison, (1992).

centered pharmaceutical care model. The "Step Approach" offers one such alternative(18). The goal is to help students see a process by which planning and implementing pharmaceutical care can be made feasible.

Planning pharmaceutical care can begin by selecting one client group to target. The target group can be based on interests of the pharmacist, resources at the site, and nature of the patient population (dominant health problems, needs). In one site, pharmacists may choose to focus on first refill visits to begin their pharmaceutical care program. At another site, pharmacists may choose a disease management approach and select children with asthma to begin their pharmaceutical care planning. Pharmacist and students would design a basic pharmaceutical care patient assessment and consultation protocol for the target group. Further, the protocol would give criteria for identifying a smaller group of these patients needing more intensive interventions such as regular phone follow-up or medication boxes filled at the pharmacy for home use. Examples of client selection criteria could include demonstrated problems managing a condition or medication regimen, more vulnerable health status, more complex regimens, medication regimen involving more risk, or relative social isolation without a significant other to help. A pilot project can then be used to test and evaluate system changes to support pharmaceutical care including staffing, documentation, changing consultation space, reimbursement and workflow systems. Starting with just one pilot group promotes innovation while not completely disrupting the remainder of the practice.

CONCLUSION

Given the external forces propelling pharmacy, it is critical for the profession to have its own conscious debate to decide its professional identity. This will require the commitment for different pharmacy faculty disciplines to sit together respectfully and to focus on the product which we hope will result from our mutual efforts. Leadership at the department and School level will make the difference in whether we ask and answer what is really needed to prepare our students for pharmacy careers. Ultimately, the challenge is to integrate these perspectives in open faculty dialogue, planning integrated programs to produce graduates whose confidence, knowledge and skill embody the best of pharmaceutical care. Most Pharmacy Schools have completed their planning for implementing a PharmD curricula by the year 2000. Now comes the difficult part of implementing and evaluating the curricula.

A challenge I would like to pose with this paper is for Schools of Pharmacy to view the curricula planning thus far as only the first step. The task now is to evaluate both the process and the outcomes of this planning process in hopes that we can strengthen our programs further. To this end it would be particularly useful to examine the programs which undertook a zero- based budgeting approach to curricular planning to compare the relative amount of coursework on various topics. Certainly diversity of programs is positive. We get the chance to learn from one another as to how sensitive or especially important areas of the curricula were handled. Experiential learning in community settings represents one such area where comparison of programs can be especially fruitful. To what extent do curricula and experiential learning prepare students to understand and respond to the client's perspective? What are the range of strategies

for accomplishing this through experiential and didactic learning? To what extent do curricula position pharmacy to create and sustain a unique nitch among health professionals? To what extent do curricula prepare students to take advantage of the inevitable and unpredictable changes in the health care service system over the next decades? Pharmaceutical care, much like the clinical pharmacy movement, which preceded it, has a window of opportunity for implementation. The nature of curricular decisions we make now regarding didactic and experiential learning for our students will have enormous impact on what the following twenty years looks like for the profession and, more importantly, for our clients.

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(4) Chewning, B. and Sleath, B., "Medication decision-making and management: A client- centered model," *Soc. Sci. Med.*, **42**, 389-398(1996).
(5) Gerteis, M., Edgman-Levitan, S., Daley, J. and Delbanco, T.L., (edits.), *Through the Patient's Eyes*, Jossey-Bass Publishers, San Francisco CA (1993).
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