

Consumer Awareness of Pharmacist Roles and Activities: An Experiential Learning Activity for Pharmacy Students

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1. Rationale:

Over the last two decades, there has been a shift in the pattern of pharmacy practice from purely dispensing to providing patient centered care services such as medication therapy management. As compared to the earlier five years of didactic learning, pharmacy students now undergo six rigorous years of education, involving three years of didactic training on pharmacotherapy, pharmaceutical sciences and psychosocial aspects of pharmacy practice, such as cultural beliefs of patients and patient-provider communication. Today's pharmacists are well equipped to play the role of patient educator. However, consumer awareness of their roles and activities remains limited leading to under use of the valuable resource- the pharmacist. Research on pharmacist provided services indicates that patients typically underestimate pharmacist knowledge and ability to provide valuable services, such as patient counseling and pharmaceutical care (Schommer 1994, Schommer and Chewning, 1996). Also, pharmacists often perceive that patients desire quick and inexpensive service from their pharmacist rather than quality advice about medication management (Shah and Chewning, 2005). However, a recent study carried out in a midwestern state suggests that patients need information related to side effects and interactions from their pharmacist (Shah, Gadkari, Patwardhan and Chewning, 2006). In such a scenario, it is important to bridge the gap between lack of patient awareness of pharmacist role and activities and pharmacist understanding of patient preference for information and help in decision making from their pharmacist.

Experiential learning activities such as assigning pharmacy students to carry out a small investigation about consumer expectations can be used to teach students about what consumer expect of pharmacists. In addition, this learning activity can be used to inform consumers about pharmacists' role and activities. It addresses the gap in pharmacy curricula that has placed a limited emphasis on understanding patients' expectations and awareness of pharmacist's role and activities.

This learning activity will affect the teaching and learning within the University in numerous ways. First, from the perspective of students, it provides them with an opportunity to interact with patients and gain a first hand experience of understanding what patients expect from them. Second, from the perspective of faculty, students will be able to learn how to carry out small interventions to assess and change patient expectations and preferences. Third, from the perspective of the mission of the University and the School of Pharmacy, it helps to develop a link between the pharmacotherapy and psychosocial aspects of pharmacy practice. Finally,

this activity will help achieve the overall goal of developing service-oriented and caring healthcare professionals.

Goals:

To provide students with an experiential learning activity that will provide them with an insight into:

- 1) Consumer expectations of information from their pharmacists
- 2) Barriers that affect consumer ability to ask questions to their pharmacists
- 3) Consumer awareness of pharmacists' role and activities
- 4) A way to educate consumers about pharmacists' role and activities
- 5) A way to improve their understanding of consumer awareness and their ability to change consumer lack of awareness

Research Questions:

- 1) What information do consumers expect from their pharmacists?
- 2) What barriers affect consumer ability to ask questions to their pharmacists?
- 3) To what extent are consumers aware of pharmacists' role and activities?
- 4) To what extent does an education material (i.e., a brochure) increase consumers' awareness about pharmacists' role and activities?
- 5) To what extent does an experiential activity requiring students to conduct patient interviews improve student understanding and perceptions of consumer awareness about pharmacists' role and activities?

2. Study Design and Methods

Design: This learning activity is designed to provide pharmacy students with an insight into consumer expectations and awareness of pharmacists' role and activities by interacting directly with the patient. It uses self-report data obtained from a face-to-face interview and a self-administered survey, to be carried out by the students as a learning experience to understand consumers' expectation and their awareness. Pharmacy students enrolled in the Social and Behavioral Aspects of Pharmacy (PH101) in fall 2007 will be involved in these learning activities. In the first week of classes, students will be given a pre-assessment survey instrument that will evaluate student perceptions of patient awareness and expectations from their pharmacist (Appendix 1). In the second week of classes, students will be trained in conducting interviews. In weeks 3-13, students will be given an assignment where they will be asked to conduct and record digitally two face-to-face interviews using a standardized script (See Appendix 2) designed by the instructor(s). Prior to the interview, students will be asked to randomly assign the patient to a control or experimental group. The control group patients will be interviewed by the student, asked to complete a self-administered questionnaire (See Appendix 3), and then given a brochure discussing pharmacist role, whereas the experimental group patients will be interviewed by the student, given a brochure and then asked to complete a self-administered questionnaire. In week 14 of classes, all the data that were collected by the students will be tabulated to show students the results of the experiment that they conducted. Finally, in week 15, students will complete a post-assessment instrument (Appendix 4) that will evaluate students' perceptions of patient awareness, expectations and the utility of the learning activity.

Data Collection Methods: Two data collection methods will be used with patients: 1) face-to face interview with general consumers and 2) self-administered questionnaire. Students will

complete a pre and post-assessment survey instrument. Prior to collecting data, all students will complete human subjects training program.

Inclusion Criteria: Participants are primarily general consumers. Since this study involves reviewing an educational brochure, English-language reading eligibility is required. Participants will be chosen based on students' judgment, accessibility and consent to participate.

Exclusion Criteria: The purpose of this study is to learn about general consumer awareness. Healthcare providers, those who are related to healthcare providers, or those in close relation with pharmacy students will be excluded from the study. Additionally, participants under 18-year of age will be excluded from the study.

Number of Participants: A total of 200 students are enrolled in the class. Each student will enroll 2 participants (consumers). A total of 400 participants (consumers) will be included. An equal number of participants will be assigned into two groups. The two groups should be comparable in nature. The only difference between the two groups is that the second group will review the educational brochure prior to completing a self-administered questionnaire.

Role of Participants: Participants (Consumers) will be asked to participate and informed about this study. The introductory portion of the interview script (see Appendix) will inform participants that their participation is voluntary and no personal identifiers will be collected. Thus, their identity will be anonymous. Participants will be assured that their participation is voluntary, and their identity will be anonymous.

Participation in this study will take approximately 10 minutes. First, all participants will answer interview questions (see Appendix). Then, control group participants will complete self-administered questionnaire without reviewing the educational brochure. Experimental group participants will review the educational brochure that will be given to them prior to completing a self-administered questionnaire.

Compensation: Respondents will not be paid for participation. The educational brochure will be given to all participants.

Measurement Procedure: Interview questions and self-administered questionnaire can be found in Appendix.

Risks to participants and students

Risks to the consumers and the students are minimal. Questions asked are non-sensitive and general in nature. No personal identifiers are collected, thus confidentiality and anonymity risks are minimal. The study involves a simple intervention (i.e., an educational brochure) that provides information regarding pharmacists' roles and activities and thus poses little risks to the consumers.

Benefits to the participants

All participants will receive the brochure as a complimentary gift. Previous studies using brochures as education interventions suggest that consumers stand to benefit from the information provided in the brochures.

Involvement of other faculty

Faculty from our university will be invited to collaborate and provide suggestions to the instructors for integrating/enhancing this learning activity in the larger framework of the university mission after the first year of its implementation and evaluation. The digital recording instruments acquired for this project will also be made available to other faculty upon request. Instructors of the course will also be willing to provide training workshops on how to use the digital recording instruments for experiential learning activities.

3. Timeline

Activity	Anticipated Schedule
Pre-Assessment of Student Perceptions of Consumer Awareness and Expectations of Pharmacist Role	First Week of Fall Classes
Student Training	Week 2
Experiential Activity	Week 3-13
Data Tabulation from Experiential Activity	Week 14
Post-Assessment of Student Perceptions of Consumer Awareness and Expectations of Pharmacist Role and Utility of the Experiential Activity	Last Week of Fall Classes

4. Resources Needed

In order for students to conduct and record interviews, digital recorders will be needed. For a class of 200 students we feel that we will need to acquire at least 20 digital recorders so that within 10 weeks all students can complete their experiential activity. These 20 digital recorders will allow 20 students each week to enroll participants and conduct their assignment. Based on suggestions from the IT department the average cost of a quality, reliable digital recorder is approximately \$100. The budget needed is as follows:

Resource	Cost
Digital recording instruments (approx 20 recorders @\$100 each)	\$2000
Survey instruments printing	\$ 500

5. Outcomes

There are two main outcomes of interest in this project. First and foremost, we are interested in improving student understanding and perceptions of consumer awareness and expectations of the pharmacist role. We want students to understand that consumers/patients do not know that pharmacists can play a larger role in their medication/healthcare management. Second, we are interested in improving consumer awareness and expectations of the pharmacist role. Secondary outcomes of interest are the extent to which this learning activity improves student comfort in using small interventions such as patient education brochures, asking patients questions about their interactions with pharmacists, and their overall ability to approach patients. All outcome measures will be collected by using survey and interview methods of data collection. Results of this experiential activity and its assessment will be disseminated at the faculty meeting and at academic conferences such as the Annual American Association of Colleges of Pharmacy.

6. Assessment

Since the project has two goals- improving student understanding/perceptions and improving consumer awareness/expectations, the assessment of this project will be twofold. Assessment of student understanding/perceptions will be conducted using a pre-post design where students will be completing a pre-assessment survey instrument in week 1 (See Appendix 1) and post-assessment survey instrument in the final week (See Appendix 4). Assessment of consumer awareness/expectations will be conducted using a post-only experimental design where the

control group consumers will complete a survey instrument before they receive the brochure and the experimental group consumers will complete a survey instrument after they receive the brochure. For each assessment, change scores (change in student understanding scores pre-post and change in consumer awareness scores control versus experimental) will be examined for statistical difference.