INSTRUCTIONAL DESIGN AND ASSESSMENT

A Tool to Teach Communication Skills to Pharmacy Students

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Objective. To develop a tool to teach pharmacy students assertive communication skills to use when talking with physicians over the telephone.

Design. As an assignment for their *Communication Skills and Counseling* course, students were asked to write a script involving a patient care issue or problem covering 3 different communication styles that could be used when contacting a prescriber by telephone: passive, aggressive, and assertive. Students worked in groups to write and act out the scripts for the class.

Assessment. Eight scripts were developed by students and rated by peers and faculty members. The script that received the highest ratings was used in the development of a multimedia educational CD.

Conclusion. The development of hypothetical scripts describing a drug therapy problem and illustrating the types of interactions between physicians and pharmacists while discussing the problem allowed pharmacy students to explore different communication techniques and improve their communication skills.

Keywords: communication, physician

INTRODUCTION

Pharmacists' move from having a medication-centered role to having a more patient-centered one has put more responsibility on pharmacists' shoulders to acquire new communication skills and knowledge. Whether pharmacists are dealing with patients and their families or with other health care professionals, they need to know how to interact with such individuals and how to handle situations that may arise. Patient counseling and patient-centered interaction are key elements to the pharmacist's role. The goal of pharmacists' changed role is to improve the quality of health care for patients.[1] With the enhancement of their communication skills, pharmacists' adoption of this changed role and the achievement of its goal could be accomplished.

The main reasons for pharmacists' difficulties in communicating with other health professionals include struggles for power, poor communication, lack of trust, and an unsatisfactory communication environment.[2] Struggles for power and autonomy are the main obstacles in communications between pharmacists and other health professionals, especially since the new patient-centered role for pharmacists could be viewed as an intrusion into other professionals' roles. Physicians have noted that pharmacists sometimes give inappropriate information

to patients, and provide counseling that is in conflict with the physician's advice, and that this scares patients especially when considering the potential consequences.[3] Physicians sometimes feel pharmacists do not have the necessary knowledge about the patient, his/her condition, or management of the condition to offer health care services. Further complicating the situation, physicians may not agree to make all needed medical information available to pharmacists so they could provide the proper pharmaceutical care for patients.[4] All of these factors could result in a strained working relationship between key professionals that could negatively impact patient outcomes.[5] However, even if pharmacists suspect that physicians are not accepting of their recommendations, research suggests that physicians are receptive in most cases. Evidence from a number of pharmacy practice settings suggests that when pharmacists make suggestions to physicians for important changes in patients' drug treatment, pharmacists' recommendations are usually accepted and implemented.[6-7]

Interpersonal communication is a one-to-one interaction in which messages are generated and transmitted by one person and subsequently received and translated by another.[8] It can be verbal, nonverbal, or written. In their interactions with others, pharmacists need to be assertive. Assertiveness is a middle state between aggression and passivity.[9] Aggressive people win by dominating and intimidating others and promoting their own opinions at the expense of others' views.[10] On the other hand, passive

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people try to avoid conflict at all costs. They do not say what they really think, fearing people might disagree with them, so they usually wait for others to initiate an interaction.[10] Assertiveness involves the direct expression of ideas and opinions, while respecting the rights of others in an atmosphere of trust.[10-11] There are a number of skills and techniques needed for assertive communications. These include initiating and maintaining conversations, encouraging assertiveness in others, responding appropriately to criticism, giving negative feedback respectfully, expressing appreciation or pleasure, being persistent, setting limits or refusing requests, and expressing opinions and feelings appropriately.[10,12]

Over the past few years, pharmacists have begun entering into collaborative practice agreements with physicians as a way of integrating their services into patient care. In practice settings where pharmacists have been successfully integrated into drug therapy management, patient outcomes have improved.[13,14] There are essential components to practitioner collaboration including effective communication, sharing of patient care responsibilities, and viewing other practitioners' patient care services as equally valuable and complementary.[15] This collaboration can lead to improved drug therapy monitoring, a more timely exchange of patient information, and a more efficient resolution of any drug therapy problems that arise.[16] Effective communications between pharmacists and physicians often occur over the telephone and that in itself could stand as a barrier to communication. Before pharmacists contact physicians about potential drug therapy problems they should first check reference sources and current research findings so they can confidently recommend alternative therapy plans. During the conversation, the pharmacist should keep the focus of the discussion on the patient, provide meaningful background information, clearly and concisely outline the problem the patient is experiencing or may experience with the prescribed drug therapy, and propose a solution to the problem.[17] Table 1 lists some suggestions for making communication with physicians more efficient.[18-19] In an attempt to teach these skills to pharmacy students, an exercise was designed as part of a communications course to enhance students' ability to learn such skills and help to apply them.

DESIGN

The Sharjah University College of Pharmacy is a 2-year old college established based on a curricular partnership with the Australian Monash University. *Communication Skills and Counseling* is an independent course delivered to second-year bachelor of pharmacy (B Pharm) students and is the third course in the pharmacy practice course series. The course has a didactic part that discusses the different types of communications and their application in health care situations. The course also consists of tutorials that emphasize concepts taught during lectures. The students had a total of 9 lectures and 2 tutorials about effective communication prior to writing the assignment. Students were asked to create a script involving a patient care issue or problem handled in 3 different ways. The 3 scenarios were supposed to illustrate 3 types of interactions that could happen between the pharmacist and the prescriber: passive, aggressive, and assertive interactions. The conversations were to take place over the telephone, thus limiting the interactions to verbal communication. Students were given 4 weeks to finalize their projects and they worked in groups of 6 or 7 to write a total of 8 scripts. Each student group was asked to select 3 of its

Table 1. Suggestions for Making Communications Between Pharmacists and Physicians More Efficient[18-19]

- Arranging for a separate phone line for health professionals only and which is answered by a pharmacist to ensure quick response to phone calls.
- Following telephone manners when answering the phone, holding it or hanging up.
- Being prepared by having appropriate patient information and recommendations based on this information as well as alternatives to these recommendations.
- Being brief but friendly will help build good interpersonal relationships.
- Making the purpose of the call clear from the beginning so the physician can focus on what the issue at hand is, if the interaction is going to be lengthy, this should be mentioned so that he/she could arrange for another more appropriate time if necessary.
- A SOAP format is still appropriate for telephone conversations.
- Showing respect for members of the health care team including nurses, physician assistants and office receptionists as this will help build interpersonal relationships.
- Being empathetic and assertive. Physicians are often busy and using empathy to let them know you're aware of that could be appreciated.
- Summarizing and stating what the outcome of the conversation is and if any follow-up is necessary.
- Ending on a positive note even if the issue is not resolved. A thank-you- for- your- time statement will convey this.

Table 2. Criteria Used to Assess Script Content and Quality

• Did the scenarios cover the objectives for the script?
• Did the script explain the three types of interactions?
• Was the information in the script accurate or feasible in real life situations?
• Did the pharmacist in the interaction offer valid explanation to the physician for his intervention?
• How well did the analysis offered to the interaction explain the scenario?
• How well did the students role-play their scenarios as aggressive, passive or assertive pharmacists?

members to act out their script in front of the class. They were specifically instructed to focus on the interaction rather than the drug therapy problem itself.

A 3-hour tutorial session was devoted to project evaluations. Students and faculty members participated in rating all scripts using predetermined criteria (Table 2) to assign a number from a scale of 1-10 to each one of the items listed, with 10 being the most favorable score. The numbers were then totaled for each evaluator and then added to those of the other evaluators. An average for each script was calculated and a percent score was obtained by dividing the total score by the maximum possible total score. Students were not allowed to evaluate their own projects, resulting in a total of 47 evaluations for most projects (each project involved 6-7 students). The 3 faculty members evaluating the course used the same evaluation criteria to select the best script. Among the 8 scripts, the 1 with the best evaluation was selected to be used in the development of a multimedia CD. With the help of the communications multimedia laboratory at the Communications College at the University, a CD of the selected script was developed. The students themselves acted in the scenarios, playing a pharmacist, a physician, and a narrator. In the multimedia recording, a narrator helped with the transitions between scenarios as well as supplied an analysis of the preceding scenario. The CD included audio, music, and telephone voice features.

At the end of the semester, a standard university course and instructor evaluation form was used to evaluate the course using a 5-point Likert scale.

ASSESSMENT

Fifty-four (100%) students, including 44 female and 10 male students, participated in the assignment. Results of the evaluations (Tables 3 and 4) show that script 7 (Appendix 1) was rated best by both faculty members and students as it achieved the highest average and the highest favorable percent score.

Fifty-one students completed an evaluation and rated the communications course very highly (Table 5). In the comments section of the evaluation form, students remarked that the scriptwriting assignment was an enjoyable way of learning that added an element of competition, that effective communication is a learned skill that can be improved with practice, and that good communicators are not necessarily born as such.

DISCUSSION

This paper described the development of a tool that could be used in teaching communications for pharmacy students. Communication in pharmacy is a concept

Table 3. Faculty Evaluations of Pharmacy Students' Scripts on Communication Between a Pharmacist and a Physician

	Total Points[a]	Average Score[b]	Percent Score[c]
Script 1	126	42	70
Script 2	138	46	76
Script 3	114	38	63
Script 4	99	33	55
Script 5	129	43	71
Script 6	96	32	53
Script 7	153	51	85
Script 8	120	40	66

[a]Total Points = the sum of points for the 6 items (Table 2) from all faculty evaluations- Maxiumum total points possible = 10 points possible for each item × 6 items ×3 faculty evaluations = 180 points
[b]Average Score = total points for each script divided by the number of faculty members=3
[c]Percent Score = (total points for a script/180) × 100

Table 4. Pharmacy Students' Evaluations of Classmates' Scripts on Communication Between a Pharmacist and a Physician

	No. of Evaluators	Average Score	Total Points Achieved	Total Points Possible	Percent Achieved
Script 1	48	44	2112	2880	73
Script 2	47	48	2256	2820	80
Script 3	47	40	1880	2820	67
Script 4	47	35	1645	2820	58
Script 5	48	43	2064	2880	72
Script 6	47	30	1410	2820	50
Script 7	47	52	2444	2820	87
Script 8	47	44	2068	2820	73

Table 5. Pharmacy Students' Responses on a Course Evaluation for *Communication Skills and Counseling*

Item	Average Score[a]
1 The objectives and organization of this course were defined clearly at the beginning of the semester.	4.4
2 Appropriate presentation and delivery techniques are used in this course.	4.3
3 The material in this course is presented clearly.	4.4
4 Assignments and/or other exercises are useful in reinforcing different concepts introduced in this course.	4.5
5 Evaluation methods in this course are appropriate in assessing student learning	4.3
6 What is your assessment of the overall quality of this course.	4.5

[a]Average scores are supplied by university analyst and are based on a 5-point Likert scale with 5=excellent, 4=very good, 3=good, 2=average and 1= poor

included in most developed pharmacy education curricula, but is a theoretical concept that is rarely emphasized or even explored in traditionally styled programs like those in the Middle East and the Persian Gulf countries. Our pharmacy college is new and a great amount of effort is being made for the program to be unique in the region. This course is one of a series of pharmacy practice courses that aim to produce a well-educated and skilled graduate. Pharmacists in this region—as in many other countries—are the first health professional that patients see. Additionally, many prescription medications are sold to patients without a prescription at the discretion of the pharmacist. Pharmacists who are skilled communicators are likely to have a greater influence on prescribing than those who communicate less effectively.[20] Since pharmacy residency programs and clinical pharmacy services provide most of the training necessary for clinical competency, differences among individual pharmacists' ability to influence prescribing are probably due to differences in their ability to persuade rather than in their clinical competence.[20] These factors would necessitate that pharmacists have adequate and proper communication skills in order to best serve their patients. The emphasis here has been on the types of interactions that could arise when communicating with physicians over the phone in regard to therapy problems. Students were involved heavily in the development of this tool as they themselves competed to develop a script that illustrated these 3 types of interactions: passive, aggressive, and assertive. The students were also the actors and assistant producers of this tool. The faculty member teaching the course directed the production and provided general guidance to students and continuous feedback and assessment of their work. In the future, this CD will be used in teaching communication skills in the communications course.

Limitations to this project include the production of scripts describing simple drug therapy problems as they were produced by second-year pharmacy students. However, the simplicity of these scripts may have helped the students focus on the communication rather than on the problem itself. Since the sound and multimedia effects were also produced by students, they are not professional quality. Thus, this project is open for improvement in subsequent offerings of the course.

SUMMARY

Effective communication is a powerful skill pharmacists need to acquire and master in order for the best patient's outcomes to be achieved. A tool to teach pharmacy students the different types of communication that can happen in their interactions with prescribers was developed. Students rated the communications course highly and contributed to the development of the instructional multimedia tool.

ACKNOWLEDGEMENT

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Appendix 1. Script used in the development of a multimedia CD on communication between pharmacists and physicians.

Narrator: Welcome to this audio about the types of verbal communication in pharmacy practice. Communication between doctors & pharmacists is often verbal on the phone. During this process, three types of interactions could happen, (aggressive, passive and assertive). This audio is designed to explore and demonstrate these interactions. You should remember while listening to the scenarios that the goal of communication with doctors is achieving the best outcome for the patient and that it's not a battle. The point of consideration in the following scenario is the route of administration of a drug called Ciprofloxacin. Remember to concentrate on the communication techniques.

Aggressive Behavior

Doctor: Hello, this is Dr. Brown speaking.

Pharmacist: Hello Dr. Brown, this is Sarah Smith speaking. I am the pharmacist looking after surgical ward 7-B. I wanted to speak to you about Mr. Jones who had a car accident & was unconscious last week. You just prescribed Ciprofloxacin for his pharyngitis to be given IV. I assume you know that he is awake now?

Doctor: Sure, I am his doctor as you know.

Pharmacist: Okay then you should know that all his medications are given orally except for ciprofloxacin so giving it orally is the best choice for him now.

Doctor: Actually his test results show that the condition is still serious so I have decided to continue with the IV. He still has fever & his WBC is elevated.

Pharmacist: As far as I know oral ciprofloxacin has nearly the same bioavailability as the IV so Mr. Jones will get the same benefit & it's cheaper which means even more benefit to him. Avoiding long term complication is another advantage.

Doctor: No No No. I don't have to remind you that it's my decision, so don't waste my time.

Pharmacist: Fine, do whatever you want.

    (And she slams down the telephone receiver)

Narrator: The pharmacist was really aggressive because:

    Firstly: her tone of voice was loud & overbearing.

    Secondly: her phrases conveyed messages which were:

Narrator: superior (narrator pause)

Pharmacist: "You should know . . . .", "As far as I know. . . . . " (Use pharmacist voice from before)

Narrator: accusing (narrator pause)

Pharmacist: "I assume you know . . .." (Use pharmacist voice from before)

Narrator: lack of ownership of responsibility (narrator pause)

Pharmacist: "Do what ever you want" (Use pharmacist voice from before)

Narrator: But the doctor seemed aggressive too. Like the pharmacist, his tone of voice was loud & overbearing. Each of them expressed his opinion without considering the needs & feelings of others. Unfortunately, the best outcome for the patient was not achieved.

Passive Behavior

Doctor: Hello, this is Dr. Brown speaking.
Pharmacist: I am so sorry to trouble you, Dr. Brown. This is Sara Smith speaking. I am the pharmacist looking after surgical ward 7-B. I wanted to speak to you about Mr. Jones who had a car accident & was unconscious last week. You just prescribed Ciprofloxacin for his pharyngitis to be given IV. Actually he is awake now and Ciprofloxacin is the only medication he is receiving IV.
Doctor: Actually his test results show that the condition is still serious so I have decided to continue with the IV. He still has fever & elevated WBC
Pharmacist: Oh, if that's the case then I am so sorry to bother you. Thanks a lot for your time.
   Pharmacist replaces the telephone receiver.
Narrator: This time, the pharmacist behavior was passive. We can notice that from her weak, hesitant voice & also from the apologetic phrases she used:
Pharmacist: "I am so sorry to trouble you". "I am so sorry to bother you" (Use pharmacist voice from before)
Narrator: she didn't really explain the reason the medication could be given in an oral form.
Pharmacist: "he's awake now and ciprofloxacin is the only medication he is receiving IV…."
Narrator: The pharmacist tried to avoid conflict & the patient's best outcome was not achieved.

Assertive Behavior

Doctor: Hello, this is Dr. Brown speaking.
Pharmacist: Hello Dr. Brown, this is Sarah Smith speaking. I am the pharmacist looking after surgical ward 7-B. I wanted to speak to you about Mr. Jones who had a car accident & was unconscious last week. You just prescribed Ciprofloxacin for his pharyngitis to be given IV. Mr. Jones is awake now. He is receiving all his medications orally except ciprofloxacin so I think oral Ciprofloxacin will be better for him.
Doctor: Actually his test results show that the condition is still serious. He still has fever & elevated WBC so I think it will be better to continue with the IV to get faster recovery.
Pharmacist: Oh, that is good. But oral Ciprofloxacin has a very good bioavailability compared to the IV and this way it would be cheaper to Mr. Jones while avoiding long term complications.
Doctor: I get your point. I think I will continue with the IV for one more day then you can switch to the oral.
Pharmacist: That is a great idea. Thanks for your cooperation doctor.
Doctor: And thanks for your help. Goodbye.
Pharmacist: Goodbye.
   Pharmacist replaces the telephone receiver
Narrator: At the end the patient's best outcome was achieved because both the pharmacist & the doctor were assertive. We noticed that their voices were firm & warm. Their messages were clear, direct, open & honest. They acknowledged each other's opinions.
   When the doctor said he had decided to continue with the IV to get faster recovery, the pharmacist responded:
Pharmacist: "That is good" (Use pharmacist voice from before)
Narrator: when the pharmacist explained the benefits of oral ciprofloxacin, the doctor responded:
Doctor: "I get your point" (Use the doctor voice from before)
Narrator: when the doctor offered to continue with the IV for one more day then switch to the oral, the pharmacist responded:
Pharmacist: "That is a great idea" (Use the pharmacist voice from before)
Narrator: Communication was in an atmosphere of concern & mutual respect. Assertive behavior allows negotiation through which positive outcomes can be achieved. It's difficult to maintain assertive behavior in practice. Planning ahead & knowing what you are talking about & how you will say it make you more confident. Be prepared & use references to research the problem before speaking with the prescriber. Planning the interview will help to get the message across clearly & assertively.