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Applying Standardized Patient Methodology to Teach and Evaluate the Communication Skills of Nutrition and Pharmacy Students

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Applying Standardized Patient Methodology to Teach and Evaluate the Communication Skills of Nutrition and Pharmacy Students

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ABSTRACT

Standardized patient activities are a sophisticated tool for presenting clinical scenarios and simulations to students. Medical student educators use standardized patients as a valid and reliable instrument to teach and evaluate the communication skills of medical students and residents. However, much remains unknown about how this approach has been applied in other disciplines. The purpose of this study was to evaluate the use of standardized patients to teach and evaluate the communication and interviewing skills to interdisciplinary groups of nutrition (n=19) and pharmacy (n=24) students. Student groups were given instructions to prepare questions for the standardized patient related to medical history, dietary intake, and medication use. Student groups interviewed a standardized patient presenting with type 2 diabetes and cardiovascular disease. Following this activity, five focus groups were conducted to examine how students, working together as an interdisciplinary team, used their communication skills to conduct the standardized patient interview. Focus group transcripts were analyzed for themes. Themes common to both nutrition and pharmacy students included the recognition of the standardized patient activity as a performance predictor of and applicability to future patient encounters. Nutrition and pharmacy students indicated the activity was a valuable learning experience that revealed the importance of an interdisciplinary approach. Each group positively described developing rapport with the standardized patient and acquiring confidence with their interviewing skills. Nutrition students reported anxiety and nervousness, particularly related to the grade associated with this didactic activity. Pharmacy students voiced an interest in the continuity of care specific to the case. As a way to learn more about the process that occurs after the initial interview, pharmacy students indicated an interest in working with their nutrition counterpart to conduct a follow-up interview with the standardized patient. This project demonstrated that a standardized patient experience to teach communication and interviewing skills to nutrition and pharmacy students was a useful interdisciplinary approach to prepare students for future patient encounters.
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Chapter 1

Introduction

The foundation of healthcare is the patient-provider relationship and the effective communication that supports this relationship. Fine-tuned communication skills tend to increase the healthcare professional’s success with patients. Establishing trust, cooperation, and confidence among patients is directly related to the healthcare professional’s ability to communicate. Communication affects patient satisfaction, adherence to treatment, as well as provider satisfaction.

Possessing an intellectual understanding of communication skills is a fundamental starting point, but applying communication skills in a live situation requires a conscious effort with repeated attempts. Refining these skills is a continuous process and begins with an understanding of the elements that are a part of an interpersonal communication exchange. Defined, communication involves the exchange of thoughts, messages, or information, as by speech, signals, writing, or behavior (The American Heritage Dictionary of the English Language, Fourth Edition, 2004). For health care providers, communication is pragmatically defined as the ability to use language that is appropriate and adequate for the patient’s level of understanding; the ability to speak with patients in such a way that relieves anxiety and answers their concerns; and the ability to actively recall information and provide patients with feedback. Communication allows healthcare personnel to elicit, interpret, analyze, and make conclusions regarding the treatment plan for individuals.

Communication makes effective, therapeutic care possible. Despite technological advances in healthcare, communication remains a key factor in determining patient
satisfaction (Irving & Dickson, 2004). Patients are truly consumers in a society where healthcare has become a competitive business. As in any business, consumer satisfaction determines its success. Patient satisfaction surveys continually reveal the value that patients place on the patient-provider relationship. Often, the level of honesty and mutual respect in this relationship determines the patient’s level of satisfaction.

Studies suggest that the level of satisfaction is associated with patient participation in and compliance with the therapeutic plan of care (Irving & Dickson, 2004). Patient-provider relationships in which patients and providers communicate openly with one another are reported as ideal in promoting patient adherence. Patients report that being informed and involved with the decisions regarding their care promotes adherence to prescribed and recommended treatments.

Conversely, poor communication is reportedly responsible for patient dissatisfaction, noncompliance, and in some extreme circumstances, litigation. Commonly reported occurrences that result from poor communication between the patient and the provider include maltreatment based on wrongly interpreted or inadequate information. Poor communication between providers may also contribute to misdiagnosis.

The objectives of many health-related curricula underscore the importance of effective communication. Curricula include courses that involve communication concepts and techniques. However, faculty members use a limited number of approaches and strategies to teach and evaluate students. Typically, this approach has been limited to didactic, intellectual communication activities that involve students interviewing each other with a faculty member observing and evaluating the interaction. Given the severe
consequences associated with poor communication in health care, academic courses offer opportunities to students practice these skills in a supportive environment and must be developed to simulate real life situations.

Researchers at the University of Cincinnati examined additional teaching modalities that would increase the effectiveness of students’ communication skills. Standardized patients, who have been used for many years in medical schools, may provide allied health profession students with the opportunity to learn and practice communication techniques in a simulated, supportive environment.

This study focused on the use of standardized patient methodology to teach and examine communication skills used by dietetic and pharmacy students. Presented here is an overview of the use of standardized patient methodology in medical schools, its less common application in other allied health disciplines; and the results of focus groups about students’ perceptions of the standardized patient activity related to their competence and application of communication concepts.
Chapter 2
Review of Literature

For the health professional, achieving patient satisfaction and working as a part of the interdisciplinary health care team requires strong communication skills. Professionals typically acquire communication skills while they are students. In the health care realm, educators struggle with how to objectively evaluate students’ ability to communicate with patients. Standardized patient methodology has changed the way medical students have been evaluated. However, much remains unknown about how this approach has been used to teach communication skills to nutrition and pharmacy students. The purpose of this review of literature is to examine the use of standardized patients in teaching communication skills to various students.

In 1964, Barrows and Abrahamson first introduced the idea of standardized patients for teaching and assessing clinical skills (Colliver, 2003). Standardized patients, who are lay persons that have been trained to portray a specific patient scenario during a physical examination or counseling session and offer specific feedback to students and interns, have been used as a part of medical education since the mid-1970s (Hampl, 1999). Since then, standardized patients have changed the way medical students are educated and evaluated. Standardized patients have become a routine part of the assessment of the clinical skills of medical students, and have even become a key component in several certification and licensure programs (Boulet & Norcini, 2003).

As part of the assessment, standardized patients learn a particular role for the patient-health care simulation. The medical histories from those who have existed or exist are used in such simulation. Using actual cases increases the simulation credibility.
and may influence the student’s perception about the importance of listening, phrasing questions a certain way, and being observant of a person’s non-verbal behaviors. When trained properly, standardized patients are coached so carefully that even a skilled clinician cannot detect a difference between a patient and the standardized patient (Colliver, 1993).

Standardized patients offer a variety of advantages. Standardized patients provide students with the opportunity to apply learned interviewing techniques, allowing the students to experience the real-life interpersonal component of an actual patient interview. The use of standardized patient methodology allows students to practice assessment skills in an environment that is less intimidating and in an environment that is conducive to learning and practicing. Another advantage to using standardized patients is duplicate scripts among various standardized patients ensure that patient problems will not vary from one student to the other, thereby allowing an objective approach in evaluating student performance. Unlike real patients, standardized patients are available at any time, in any setting, and can be trained to portray the same patient throughout the time needed for recovery or care (Hampl, 1999).

Persons to portray standardized patients can be found at a variety of sites such as senior centers, community colleges (e.g. programs that train dietetic technicians), and local volunteer programs (Rubin, 1998). Men and women of all ages and ethnic groups are needed to represent the various cases and patient problems used for simulations. The use of a diverse population to represent a standardized patient mimics the typical patient population that the student will encounter in practice. Acting experience is not a
necessary prerequisite because of in-depth training that is provided to those who act as standardized patients.

Training a standardized patient typically involves having the person meet with a trainer, someone with experience in clinical situations, for a period of 4-20 hours, varying according to the case scenario. Those qualified and interested in being a part in the education of future health care professionals are commonly compensated for training and participation. Generally, the medical record of a former or current patient is selected as the model. A detailed synopsis of the case is established from this record so the standardized patient can be trained. Information in this summary should catalog the patient’s chief complaint, demographic data, dietary intake for at least one day, and behavior and mannerisms (Hampl, 1999). Recommended treatment, educational needs and questions the standardized patient may ask should also be included. Role-playing with the trained and standardized patient is often used as a training method. Standardized patients are instructed on how to complete the checklists used to evaluate the student’s performance. Checklists are often computerized questionnaires that are completed immediately following a standardized patient-student interview. A checklist allows the standardized patient to grade the student on specific assessment and interview skills. Computerization offers immediate feedback to the student and the instructor. To ensure a meaningful encounter with a student, training standardized patients about offering considerate, helpful, and specific feedback is important.

Standardized patients have been the focus of many studies, most of which have been conducted with medical students. The scope of study has varied in relation to the particular use of standardized patients. Standardized patients have been used to assess
the geriatric medicine skills of medical students, internal medicine residents, and geriatric medicine fellows (Nagoshi et al., 2004). A study was conducted to determine whether the Geriatric Medicine Standardized Patient Examination (GSPX) provides a reliable measure of geriatric medicine skills. The results of the study and the researcher’s conclusions reveal that the GSPX offers a reliable measure of geriatrics medicine skills with adequate face validity for examinees at all levels (Nagoshi et al., 2004). It was discovered, however, that GSPX scores did not increase with the level of training. This, researchers presume, suggests that a simple form of the examination cannot be used across the continuum of training. This has prompted the researchers of this study to look at modifications to the GSPX that may provide more discrimination between the different levels of training.

Other studies investigating the use of standardized patient have taken a closer look into the process of interviewing and the skills involved, especially surrounding a sensitive subject such as domestic violence. Physicians often feel unprepared to address domestic violence. Researchers at the University of Kentucky believed that educational interventions may improve the care provided to domestic violence patients. Written questions and domestic violence (DV)-specific standardized patient checklist items from an end-of-clerkship and fourth-year comprehensive multispecialty (the Clinical Performance Examination or CPX) examinations of medical students participating in a DV workshop using standardized patient was compared with nonparticipants (Haist et al., 2003). The result of the study revealed that workshop participants scored 44% on the CPX DV-specific checklist items versus 35.6% for the nonparticipants, p=.01 (Haist et
Adequate knowledge and skills pertaining to an equally sensitive subject, breaking bad news to a patient of family member, is also crucial. Whether families feel bad news has been revealed empathetically and competently is a determinant of patient satisfaction. Standardized patients were used to evaluate pediatric residents and emergency department fellows counseling and informing skills (Greenberg et al., 1999). Each participating trainee was videotaped and observed twice while communicating bad news to the standardized patients portraying the family member, typically the parent of a deceased child. The standardized patients assessed the trainee’s baseline skills and immediately following the interview provided feedback. The standardized patients informed trainees on the effectiveness of the trainee’s counseling skills. Between four and ten weeks later, a similar scenario with a different standardized patient occurred. Data from this interview was used as a reflection of the trainee’s post intervention skills. Researchers concluded that using standardized patients to teach residents and emergency department fellows to give bad news is an effective educational process that provides trainees with interactions that simulate real-life experiences (Greenberg et al., 1999).

Only a few studies have examined the role of standardized patient in other disciplines such as nutrition, pharmacy, and speech-pathology. The purpose of these studies varied, but, overall, researchers sought to determine the applicability and efficacy of standardized patient methodology in other healthcare related education curricula.

Regehr and Sibbald (2003) investigated the psychometric impact of using pharmacy students as standardized patient during an Objective Structured Clinical
Examination (OSCE) of senior students. Results revealed “the reliability and validity of faculty and patient ratings were largely unaffected by the use of first year pharmacy students rather than standardized patient to perform the patient roles” (Regehr and Sibbald, 2003). Researchers concluded that using first-year students is psychometrically feasible and may even provide learning benefits to the student participants. More specifically, as raters, students who have taken a communication course may have a heightened awareness of desirable communication skills. As learners, they may perceive benefit in terms of application to performance in senior years.

Allen and colleagues examined the use of standardized patients with aphasia to teach interpersonal and communication skills to new graduate student clinicians in Speech-Language Pathology, and to test those skills via serial OSCEs. Results of this initial study suggest that incorporation of standardized patients and OSCEs into a graduate course on disordered communication is possible, and acceptable to students (Allen, Johnson, and Zraick, 2003). However, additional research is needed to fully understand how to best use this methodology in the discipline of Speech-Language Pathology.

To date, only one study documents the application of standardized patient methodology in teaching communication skills to nutrition students. Hampl (1999) and colleagues used the standardized patient interview as a final evaluation for undergraduate dietetic students enrolled in a nutrition counseling and communication class. The study revealed that students thought the interview with the standardized patient provided counseling experience similar to those at the medical center, but that the session with the standardized patient permitted them to be trained and evaluated objectively (Hampl,
Several students noted they learned more about counseling and appreciated feedback from the professors and the standardized patient. Final conclusions drawn from the study were “students thought the standardized patient experience was a useful tool for grading them objectively and, perhaps more importantly, several students reported that they learned how to be better counselors by working with the standardized patient (Hampl, 1999). Positive reviews from the students encouraged faculty to plan a second phase of this educational experience. To date, no subsequent studies have been conducted.

Numerous studies have investigated the effects of standardized patient methodology on students, curricula, and faculty. Moreover, interestingly, a study was conducted by Wallach et al. (2001) that investigated standardized patients’ perceptions about their own health care once having served as a standardized patient. One-hundred eighty standardized patients participating in the Department of Medicine programs at 5 medical schools were surveyed. The standardized patients either completed a survey during standardized patient activities, or completed the survey once received in the mail. The survey contained 11 attitude-related statements related to their own health care after serving as a standardized patient. Responses were received from 164 standardized patients. The results revealed standardized patients perceived that because of their participation as a standardized patient they had a better understanding about medical history taking and physical examinations (Wallach et al., 2001). Standardized patients also believed they were able to communicate more effectively with their healthcare provider, and were more comfortable with both health care visits and physical examinations (Wallach et al., 2001). Conclusions from this study claim standardized
patient programs seem to influence standardized patients by improving perceptions about their own health care interactions.

Despite evidence about the use of standardized patients as a valid, reliable, and cost-efficient means of evaluating medical students, such use in dietetic curricula remains unseen. In a study for the Dietetic Educators of Practitioners dietetic practice group, Rhoades and others reported that none of the directors of dietetics education programs in their sample used standardized patients to train students (Rhoades, 1997). Furthermore, some sites of clinical use are not able to present the wide range of nutrition conditions that medical nutrition therapists encounter and the use of standardized patients provides students with opportunities to practice basic skills and more in-depth assessments than may be possible in these sites (Hampl, 1999).

The use of standardized patients in an academic interdisciplinary setting is not well documented. To date, there are no studies about using standardized patient methodology in teaching and assessing interdisciplinary collaboration and learning. As a result, study investigators expected to demonstrate that the application of standardized patient methodology would enhance students’ communication skills and facilitate their knowledge and understanding of interdisciplinary health care relationships.

In a profession where communication is crucial and positive patient outcomes are dependent on competent, skilled clinicians, standardized patients may provide a way to train students in effective communication as well as assessment and intervention methods. Further, immediate feedback from standardized patients about the student’s performance fosters the development of skilled clinicians. Standardized patients give
students the opportunity to work with a variety of routine, difficult, and sensitive clinical situations where mistakes are harmless, where feedback can be enlightening.
Chapter 3

Methodology

The purpose of this study was to examine how nutrition and pharmacy students used their communication skills to interview a standardized patient. The standardized patient experience was intended to teach and evaluate communication and interviewing techniques of the student participants. The main outcome of measure for this study was the students’ perceptions of standardized patient methodology in teaching and evaluating communication skills. A qualitative research approach was used in order to examine the students’ perceptions about the standardized patient activity. This approach involved the use of focus groups to learn the students’ responses to the activity. The purpose of this section is to discuss the study protocol including sample selection, procedures, evaluation, ethical considerations, data analysis and study limitations.

Sample selection

Based on the purpose of this study, sample selection was based on purposive convenience sampling. Purposive sampling involves the selection of subjects that the researcher feels will yield the best understanding of whatever it is they wish to study. The sample for this study was a typical purposive group, chosen and considered to be representative of that which is being studied. The target population for this study included undergraduate nutrition and pharmacy students. The accessible population was a group of nutrition and pharmacy students enrolled in either an upper level communications course or an independent study elective geared to this research activity. During fall 2004, 19 nutrition students enrolled in an upper level nutrition communications course and 24 pharmacy students enrolled in an independent study
elective geared to this research activity participated in a simulated interview with a standardized patient. For this study, students who participated in the activity were invited to participate in a focus group about their experiences. Both nutrition students and pharmacy students received instruction and training on the expectations of an assessment interview. Student groups were assigned in multidisciplinary pairs two weeks prior to the scheduled standardized patient interview. The pairs of students were given detailed instructions to prepare questions for the patient related to medical history, nutrition, 24-hour dietary recall, and drug usage. Also outlined were expectations for grade accountability.

Procedure

To increase students’ knowledge and understanding about interdisciplinary health care, two professors provided a lecture about their respective discipline and health care responsibilities. For example, the professor of the upper level nutrition communications course appeared before the group of pharmacy students enrolled in the elective course geared to this activity and provided the students with a detailed overview of the dietitian’s role in healthcare including the clinical skills that a dietitian possesses, and the core concepts related to the discipline of nutrition. This lecture provided students with further knowledge and understanding of their interdisciplinary counterpart.

In the case scenario, the standardized patient portrayed a person recently diagnosed with type 2 diabetes and elevated cholesterol. The standardized patient was instructed to present to the clinic by his or her physician to see the dietitian and pharmacist in order to attain better control of their respective illnesses.
The standardized patient interviews were conducted during fall 2004 in the Center for Competency Development and Assessment in the College of Medicine at the University of Cincinnati Medical Center (UCMC). Standardized patients were assigned to different examination rooms and awaited as student pairs entered. Each pair of students was allotted 45 minutes to complete the standardized patient interview. The interviews were audio and video recorded. Investigators involved in this study were able to witness the interviews via a separate audio and video broadcast room.

Evaluation

Immediately following the standardized patient interview with the student pair, each standardized patient completed a computerized checklist grading the students’ interpersonal communication and interviewing skills. Later, the audio- and video-recorded interviews were reviewed by the individual instructors of each student group. Within a week, students received feedback from their respective professors about what was done well during the interview and where improvements were needed.

As a process evaluation approach, focus groups were used to evaluate the students’ responses to the standardized patient activity. After the students received their grade for the standardized patient activity, several one-time focus groups comprised of 8-10 students, spanning 1-15 days following the activity, were conducted. Voluntary participation from the students was solicited. Students were made aware that their final grade in the course would not be affected if they chose not to participate in the focus group. A total of 33 students consented to participate in the focus groups. A total of five focus groups were conducted. Focus groups lasted approximately 25-35 minutes. The focus groups were audio-recorded for later transcription.
An interview schedule was used to guide each focus group discussion. The questions for the focus group were developed from a review of literature (see Appendix A). The questions and statements that were used as a guide for the focus groups were intended to probe into the students’ perspectives, opinions, feelings, and perceptions of the standardized patient activity as a teaching approach to training and evaluating communication skills of dietetic and pharmacy students. The questions and statements were open-ended and accompanied by several probing questions.

Ethical considerations

To assure adherence to ethical guidelines, this study was reviewed and approved by the University of Cincinnati Institutional Review Board. All participants received a verbal and written explanation of the study’s purpose, objectives, risks, and benefits. Prior to participating in the focus groups, all volunteers signed an informed consent document. The informed consent process allowed students to make their own determination about participating in the study. All participants were assured confidentiality and anonymity of their responses.

Data analysis

Following the focus group sessions, the audio-recordings were transcribed and received by the writer for further analysis. The grounded theory approach was used to analyze the data and inductively form conclusions regarding the students’ perceptions. In a grounded theory study, the researchers intend to generate a theory that is grounded in data systematically gathered and analyzed (Glaser & Strauss, 1967). The data gathered in a grounded theory study are collected primarily through one-on-one interviews, focus group interviews, and participant observation by the researcher(s). In this study, as
discussed earlier, focus group interviews were used to gather data. The data were further analyzed using the constant comparative method. In this method there is a continual interplay between the researcher, his or her data, and the theory that is being developed (Strauss & Corbin, 1998). Potential categories for grouping student responses were created, tried and compared with other responses until common themes were evident. Primary themes emerged from the focus group data, providing insight into the students’ perceptions of the standardized patient activity.

**Limitations**

In a grounded theory study using the constant comparative method of analysis, conclusions are subject to subjectivity and are highly dependent on the insight of the researchers. This suggests the inherent possibility of researcher bias that may affect the generalizability of the results. The results of the focus groups and conclusions drawn from these meetings are discussed in the following sections. In addition to the possibility of researcher bias, although both groups of students reported favorably of their experience with the standardized patient activity, it is unknown what type of an effect this activity will have on future patient encounters. Not every student enrolled in either the nutrition communication or pharmacy independent study courses participated in the focus groups. Therefore, it is unknown whether those who did not participate in the focus groups would have offered different opinions and perspectives that the following results are based on.

**Summary**

The purpose of this section has been to describe the methodology used for this study. Five focus groups comprised of a total of 33 students provided the research data.
The students responded to questions and statements regarding their perceptions and opinions concerning the standardized patient activity. The information obtained from the focus groups was analyzed based on the grounded theory. The limitations of this study are related to researcher bias and the indefinite long-term implications associated with the standardized patient activity.
Chapter 4

Results

This section presents the major themes about the students’ perception of the standardized patient activity. The themes that emerged from the focus group interviews included: ease of developing rapport with the standardized patient, anxiety, concerns over continuity of care following the standardized patient activity, future application, and importance of interdisciplinary collaboration. Certain themes were common between both the nutrition students and the pharmacy students, whereas others were shared within disciplines. Students offered their opinions including suggestions for future standardized patient activities.

Rapport

Nutrition and pharmacy students shared their surprise by ease with the simplicity which they developed rapport with the standardized patient. Students indicated they felt comfortable with the standardized patient. The standardized patients were instructed to present their case in a calm manner, but to have a sense of uncertainty about why their primary care physician referred them to the dietitian and pharmacist. Once they established rapport, many students said they felt more confident in proceeding with the interview. Students reported they felt their greatest strengths involved their ability to use the appropriate questions to ascertain a medical history and understanding of the standardized patient. Students felt they communicated in an appropriate style for the situation.
Anxiety

Nutrition students, more so than pharmacy students, reported the standardized patient activity provoked anxiety and nervousness. They attributed these feelings to having little or no experience with a patient interview, in addition to the didactic grade dependent on their performance. Nutrition students shared that although they felt prepared through the content of their communications course, application of the interview skills and communication concepts to a simulated patient interview induced anxiety. One nutrition student stated “It (anxiety) was associated with the fact of knowing that this (the interview) is the grade, I think that was the element that was the hardest.” Another student shared that her anxiety was experienced prior to the standardized patient activity as it relates to her first patient interview, but “once you start the interview you sort of forget about it.”

Continuity

Among those who participated in the focus groups, pharmacy students expressed an interest in the continuity of care specific to the standardized patient case. Pharmacy students reported their interest pursuing other (related) communications activities relative to the case presented by the standardized patients. They envisioned working with their nutrition counterpart to learn the process that occurs from each discipline’s perspective. After conducting the initial patient interview, pharmacy students stated their interest in,
but lack of knowledge about nutrition. Specifically, they desired additional information about what type of process the nutrition students would use to assess the patients and offer nutrition therapy recommendations. One pharmacy student stated “We witnessed how their nutrition information is recorded, but we will not see how the information will be used to possibly instruct a new diet.” Another pharmacy student shared “I’m not sure how simple it is for us to get back together with our nutrition partner and go over, for example, the medication changes we may recommend or what specific dietary changes need to be made.” One pharmacy student felt that it would be more appropriate to write a combined report that included pharmacy care and nutrition recommendations. For example, “What we are doing is submitting separate reports to our professors, we don’t really see the benefit, we know there is one related between the disciplines, but we will not see it.”

The nutrition students who participated in the standardized patient activity were enrolled in an undergraduate communications course. Upon completion of this course students were asked to provide a written description of the course concepts applied during the standardized patient activity. These essays provided additional student perspectives on the standardized patient activity, especially from those who may not have participated in the focus groups. There were 5 common themes that emerged after analyzing the student’s responses: interview strategies, understanding non-verbal communication, implementation of a nutrition assessment tool, organization of the interview, and the importance of listening.

Future Application
Nutrition and pharmacy students voiced their impression of the standardized patient activity as an experience that they expect will reveal its benefit and applicability in future patient encounters. Neither the nutrition students nor the pharmacy students had any prior experience conducting a standardized patient interview. For both groups, this was their first exposure to a situation where the application of communication skills was essential to collecting necessary patient information. One nutrition student shared “I thought the interview process went well and I thought it was good practice to actually feel the pressure of not just dealing with a peer or a professor, but actually practicing with someone you thought was a real patient.” Another nutrition student stated “It gives you the chance to develop a skill that you will use the rest of your life, the more you are able to do it, the better you become.” As part of a communications skills laboratory course, pharmacy students have observed and participated in a simulated patient activity, with faculty members playing the role of the patient. Based on their experiences in this course, one pharmacy student stated “This situation was different than our skills lab, this felt like a real patient experience, definitely a good experience.” On the same basis of comparing the standardized patient experience to communications skills lab, another pharmacy student stated “I thought it was really good because we didn’t know these people and they didn’t have a piece of paper in front of them.”

Importance of Interdisciplinary Collaboration
When asked to describe the standardized patient activity from the perspective of collaborating as interdisciplinary pairs, most nutrition and pharmacy students reported having a positive experience. Both groups of students recognized the interdisciplinary approach as a novel experience. Students reported a vague understanding of their respective counterpart’s health care responsibilities. This collaboration, with their interdisciplinary partner helped students gain further insight about the perspective of another professional health care discipline. In an effort to coordinate the patient interview, many students reported ease in contacting and communicating with their partner prior to the standardized patient activity.

The essays written by the nutrition students provided additional insight and specific thought processes not evident based on the focus groups interviews. Although, like the focus groups, there were common themes shared among the nutrition students. These themes centered in the core concepts of an effective patient interview. Students reported they were able to organize the patient interview, and while employing verbal and non-verbal communication techniques practice the interviewing strategies that were provided during their communications course. The standardized patient interview provided nutrition students with the opportunity to conduct the assessment of a 24-hour recall.

**Interview Strategies**
Nutrition students reported that the standardized patient activity allowed them the opportunity to learn and practice various interviewing strategies which included paraphrasing and the use of different interviewing questions. One student wrote “One concept I applied during the standardized patient interview was the concept of paraphrasing. During the standardized patient interview I found this form of verbal communication to be extremely valuable. I used paraphrasing during the interview to make sure the patient correctly interpreted what I was saying. I also used paraphrasing to make sure I correctly interpreted the patient’s responses.” Students often reported the use of paraphrasing while conducting the 24-hour recall. Students shared that paraphrasing allowed them to verify food items that the standardized patient reported as consuming the previous day. For example, one student wrote “I paraphrased what they told me they ate the previous day to clarify that I had written it down correctly and had not missed anything.”

Students reported that paraphrasing also served a purpose of assuring the standardized patient that they were actively listening throughout their interview. Students described paraphrasing as a way of conveying an interest in the standardized patient. One nutrition student wrote “Paraphrasing helps the client realize that you are taking an interest in what is going on with them.”

Another concept that nutrition students described was their use of different interviewing questions. According to one nutrition student, “I found how you ask a question is very important.” Students reported the use of open-ended, probing, and primary and secondary questioning as opposed to leading or close-ended questions. One
nutrition student reported that he/she employed open-ended questions “when I wanted the patient to do most of the talking, for example, when asking “what was your first meal of the day? This gave her the opportunity to respond as much as she wanted and needed.” Another nutrition student described open-ended questions as “broad and allow the client the freedom to say what they would like. It also gives the interviewer an opportunity to observe and listen.”

Nutrition students reported the use of probing questions, especially during the 24-hour dietary recall. One nutrition student described probing questions as “questions that are non-directive to avoid leading the client to a specific answer, probing questions should also be non-threatening and non-judgmental.” An example given by one student where the use of probing questions was particularly helpful follows: “When I asked the patient to tell me everything he had for lunch, he told me all of the foods that he had eaten, but he didn’t tell me about the soda he had until I probed him for any drinks he may have had. If I didn’t do this, I wouldn’t have known about a lot of the calories he consumed during the day in the form of regular soda.”

Other types of interviewing questions include primary and secondary questions. Primary questions introduce new topics, whereas secondary questions build on the original question with the intention of collecting more information. One nutrition student summarized his/her use of primary questioning during the 24-hour dietary recall: “I used primary and secondary questions to expand on the patient’s previous answer. An example of a primary question I asked was: “Now that we have discussed what you had for your first meal, let’s move on to your second meal of the day.” Once the patient
reported he/she had coffee, I asked a secondary question, such as “Did you have sugar and/or cream with your coffee?”

**Understanding Non-Verbal Communication**

Nutrition students illustrated their use of non-verbal communication techniques during the standardized patient activity. These non-verbal techniques included eye contact, posture, emotional objectivity, attentiveness, tone of voice, and touch. One student described non-verbal communication as “as important an influential as verbal messages.”

Eye contact was the most common non-verbal technique reported by the nutrition students. Students expressed that “Eye contact with the patient is important, it let’s the patient know you are listening attentively and that you are interested in what they have to say. It creates a personal bond between the patient and the interviewer.”

Several students provided detailed description of their posture during the patient interview. One student recalled “During the interview, I was leaning forward, toward the patient, with my legs crossed toward her. My body was also angled toward her. Through my posture I was showing my interest in her answers, in addition to demonstrating my attentiveness.”

**Implementation of a Nutrition Assessment Tool**
Several nutrition students shared that the standardized patient activity allowed them to practice the implementation of a nutrition assessment tool, the 24-hour dietary recall. Many students reported that feeling the most prepared and comfortable with this portion of the interview. One nutrition student wrote “I felt that this was the strongest part of my interview. I collected all of my patient’s food data for the previous day, obtaining all of the information needed to establish what was eaten at each meal, each snack, and all his beverages and condiments used.” Another nutrition student shared his impression of the 24-hour dietary recall as a method to assist the patient and dietitian in further examining nutrition-related factors that may be related to the standardized patient’s condition; “I conducted a nutrition assessment using the 24-hour recall. This method serves many purposes. In order to determine why the patient may have high cholesterol and diabetes, the recall will provide insight into his dietary practices and will provide nutritional information that will help the dietitian in suggesting alternative dietary practices to help with his illnesses.”

Organization of the Interview

Nutrition students addressed the concept of the organization of the interview. Students shared that they learned how to organize an interview into 3 main categories: opening, exploration, and closing. Many students shared their accounts of the application of these interview categories and the processes that occurred during each stage. One nutrition student described his/her opening: “In the opening of the interview I introduced myself, explained the purpose of the interview, explained what we would be going over,
and also asked the patient her preferred name to make her feel more comfortable.” The same student elaborated further on the stages of exploration and closing: “During the exploration stage I collected important information about her but without giving advice or instructions. During the closing I went over the purpose of the interview again, thanked her and offered to answer any questions.”

**Importance of Listening Skills**

Listening skills are a critical component of interpersonal communication between health practitioners and their clients. Many nutrition students described their efforts to practice effective listening skills. One nutrition student thought about the importance of listening prior to the interview: “Before engaging myself in the communication process with the standardized patient, I reminded myself of my intent to listen very carefully. I approached the interview with an open mind and watched for clues for my client. I was able to observe the standardized patient’s voice inflection, rate, emphasis, quality and bodily actions. This helped me to determine the meaning of what was being said and what Cora believed to be important. I provided feedback only when necessary.”
Chapter 5

Discussion

The study examined the application of standardized patient methodology to teach and evaluate nutrition and pharmacy students’ communication skills. The results suggested that standardized patient methodology may be a practical and valuable approach for enhancing students’ professional communication skills.

Neither the nutrition students nor the pharmacy students had any prior experience conducting a standardized patient interview. For both groups, this was their first exposure to a situation where the application of communication skills was essential to collecting necessary patient information. Both nutrition and pharmacy students reported the standardized patient activity as an experience that they expect will reveal its benefit and applicability in future patient interviews. Although nutrition students reported a greater amount of anxiety compared to the pharmacy students, both groups of students shared their ease with which they developed a rapport with the standardized patient. This innovative interdisciplinary approach helped students recognize the importance of collaboration. Overall, the nutrition and pharmacy students described their standardized patient activity as a tremendous learning experience.

The results from this study are consistent with a previous study that utilized standardized patient to train and evaluate nutrition students. Hampl et al (1999) used a standardized patient interview as a final evaluation for undergraduate dietetics students enrolled in a nutrition counseling and communication course. Students’ opinions were collected via a brief questionnaire primarily comprised of open-ended questions related to their experience with the standardized patient. Students reported that the standardized
patient session was an outstanding learning experience, evaluation tool, and a viable approach for applying clinical knowledge. In addition, students described the standardized patient activity as a useful, objective tool for grading them, and in doing so, they learned how to become better counselors. The findings from this work support those by Hampl and colleagues, in addition to the results of this current study demonstrate the possible academic, professional, and clinical implications of standardized patient methodology in dietetics and pharmacy curricula.

Standardized patient methodology allows students the opportunity to learn, develop, and practice learned communication concepts in a supportive, objective environment. Nutrition and pharmacy students typically complete their academic programs and begin their professional careers without adequate patient contact, with little or no experience with the patient medical interview. Incorporating standardized patient methodology into dietetics and pharmacy programs may provide students with the experience necessary for model patient interaction. Standardized patients offer the medium in which faculty members can objectively evaluate the students’ knowledge and communication skills. Rather than examining students’ knowledge of communication concepts in traditional ways, written essays, for example, the use of standardized patient methodology permit course instructors to evaluate students based on their application of communication concepts in a simulated patient interview. By simulating a patient experience, students can apply and practice their communication techniques in a supportive, learning environment. Standardized patients and faculty can provide students with immediate feedback. This experience and objective feedback may make a considerable difference with the novice interviewer.
Chapter 6

Conclusions

These findings show that the use of standardize patients to teach and examine the communication skills used by nutrition and pharmacy students can be incorporated into undergraduate curricula and that students find the resulting activity both enjoyable and useful. The focus group interviews revealed that most students felt that the standardized patient activity allowed them the opportunity to practice learned communication concepts and techniques in a supportive environment. The standardized patient activity improved the students’ perceptions of how they would perform a patient interview.

Allied health students commonly complete their didactic programs with little or no experience with the patient medical interview. The experience and objective feedback that standardized patients and faculty can provide will assist students in further developing their patient interview skills prior to completion of their programs. By developing their interview skills, students may begin their professional careers feeling more competent and confident with the patient medical interview. This competence and confidence may translate into better clinical outcomes and patient satisfaction. Students who begin their careers better trained and prepared for the patient medical interview will be more likely to obtain the important details necessary to make informed decisions of appropriate treatment, intervention, and care.

Further research is needed to evaluate the long-term influence of such an activity on the communication and interviewing skills of those who participated in this study. It is unknown whether this activity will influence future patient encounters. It may be safe to presume such an activity will positively influence students during future patient
medical interviews. As skilled and properly trained clinicians, effective, therapeutic communication will improve patient satisfaction, adherence to recommended treatment plans, and overall health outcomes.
REFERENCES


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Appendix A:

Focus Group Interview Questions

General Questions/Statements:
1. Describe your experience with the standardized patient.
2. Describe your experience in working in pairs to obtain information from the standardized patient.
3. What made it a good experience or bad experience?
4. What were your strengths in communicating with and interviewing the standardized patient?
5. What were your weaknesses in communicating with and interviewing the standardized patient?
6. What concepts from the lecture and textbook did you apply to your experience with the standardized patient?

Probing Questions/Statements:
1. Please explain further.
2. Please give me an example of what you mean.
3. Please tell me more.
4. What, if anything more, would you like to say?
5. Please describe what you mean.
6. Who, if anyone, has more to say about this topic?
7. Can you think of anything else about this topic?