One solution to the problem of providing instruction for medical students is to use nurses as clinical instructors for each of the required clinical clerkships. A study was conducted to evaluate the use of nurses as instructors in a school of medicine by studying students' perceptions of nurse instructors. Focus groups and individual interviews were conducted with 43 fourth-year medical students. Findings show that students think that nurse instructors fill gaps in knowledge by teaching basic concepts and provide a more comfortable learning environment than physician medical faculty. Nurses are perceived to bring clinical hands-on experience to the role, to offer support to students, and to bring organization to the clerkships. Overall, students view the role of nurse instructors as positive. Appendixes contain the interview protocol and the consent to participate in research. The research proposal introduces the study. (SLD)
Nurses as Medical School Faculty: Students' Perspectives

Maura E. Sullivan
Maurice Hitchcock
Madeleine Bruning
Moreen Logan
Jan Trial
Donna Elliott
Clive Taylor
Using Nurse Educators to Teach Medical Students

In the School of Medicine at the University of Southern California, nurse educators have been added to the faculty of the required clinical clerkships. The goals were to: 1) improve evaluation procedures for student performance primarily in the area of formative feedback, 2) improve clinical skills by providing a detailed evaluation of physical examination skills, technical skills, progress notes and presentation skills, 3) assist with the development and implementation of workshops and standardized patient experiences, 4) improve course evaluation by gaining informal feedback from students, 5) mediate problem issues between students and faculty, residents, and nurses, 6) assist with the organizational aspects of the clerkship, and, 7) enhance student satisfaction.

The addition of the nurse educators has been successful in accomplishing the original goals as outlined above. Each clerkship has tailored the role to best suit their particular needs. The school-wide use of nurse educators is an innovative alternative to additional faculty in the era of growing demands on physician time. The group discussion will explore ways to implement this alternative at other medical schools.

1. Are nurse educators appropriate instructors for medical students?
2. What are the skills required of a nurse educator?
3. What funding sources are available?
4. How do you change the culture of an institution so that nurse educators are accepted as adjunct faculty members in a medical school?
5. How could this program be implemented at another institution and what are the barriers to implementation?

The format of the group discussion will be to summarize our experience at the University of Southern California during the first twenty minutes and then to use the remaining time to discuss the questions that we have outlined.
Using Nurse Educators to Teach Medical Students

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Nurses as Medical School Faculty: Students’ Perspectives

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ABSTRACT

Background: Today medical students are receiving less instruction than ever before. A solution to this problem is to hire nurses as clinical instructors on each of the required clinical clerkships. Doing so provides students with an instructor to review basic concepts and address common questions; granting physicians time to answer more complex questions and move on to advanced topics. The experience of using nurses as instructors in a school of medicine has never been formally studied.

Purpose: To describe medical students’ perceptions regarding having nurse instructors as part of their clinical training.

Methods: Focus group and individual interviews were used in this study.

Results: Students feel that nurse instructors: 1) Fill in gaps in knowledge by teaching basic concepts, 2) Provide a more comfortable learning environment than faculty, 3) Bring a lot of clinical “hands on” experience to the role, 4) Offer a supportive role to students, and 5) Bring organization to the clerkships.

Conclusions: Medical students view the role of nurse instructors positively.

Key Words for Indexing: Nurse Instructors, Teaching Time, Medical Education
BACKGROUND

In today's busy medical school environment pressures to increase clinical productivity and to perform research have resulted in limited time to teach medical students (Skeff, Bowen, & Irby, 1997). A possible solution to this problem, which has been implemented at the Keck School of Medicine of the University of Southern California, is to hire nurses as clinical instructors during the clinical clerkships. Currently 11 medical schools in the United States and Canada use nurse instructors on surgical clerkships. USC is the first medical school to institute the school wide use of nurse instructors.

The goal of hiring nurses as faculty members is to provide students with an instructor available to review basic concepts and procedures specific to each discipline, granting physicians more time to answer complex questions, minimize repetition and move on to advanced topics. While the use of nurses as medical school faculty seems promising, this innovation has never been formally studied. Multiple Medline and ERIC database searches have not found any studies to date investigating the use of nurses as clinical instructors in medical schools. However, advanced practice nurses have been used successfully in support of physicians in other fields. Studies show that nurses as “physician-extenders” have demonstrated cost effective outcomes in patient care (Atwater, 1994), that nurse practitioners can free up physicians so that they can provide more complex care to patients (Terry, 1993), and that nurse practitioners provide some aspects of office-based care that is indistinguishable from physician care (Sox, 1979). While none of the research described above has been conducted using nurse instructors in a medical school, one could argue that the extension of the conclusions to this role would be logical. After all, nurse instructors share many traits with their advanced practice counterparts.
PURPOSE

The purpose of this study was to describe medical students' perceptions regarding having nurse instructors as an integral part of their clinical training as a way of beginning to answer the question: Can nurses be effective as instructors in a medical school?

METHOD

Sample and Design

Forty-three fourth-year medical students at the Keck School of Medicine of the University of Southern California participated in this descriptive, qualitative study. Fourth-year students were chosen because they are the first class of students at USC to interact with nurse instructors on all of the required third year clerkships. Subjects in this study were chosen by convenience sampling; students who were doing rotations at LAC+USC Medical Center and were close enough to come by for an interview comprised the sample. This sample represents 28% of the class.

Procedure

This study was performed in two stages. During the first stage nurse instructors conducted three focus groups and four individual interviews. Each focus group consisted of between three and 12 students. At the conclusion of the interviews, the nurse instructors identified salient themes by transcribing each interview and grouping each theme together. During the second phase, in an attempt to overcome bias, fourth year medical students were recruited to facilitate two focus groups and seven individual interviews. Each focus group consisted of between six and eight students. Student facilitators were then asked if the themes that were identified by the nurse instructors were supported and/or if any other themes emerged.
Individual interviews and focus groups were chosen in order to triangulate the data and increase the validity of the study.

The same protocol (Appendix A) was used during each phase of the study for each interview and focus group. All data were tape-recorded. At the beginning of each interview or focus group, the purpose and procedure of the study was explained, the students were informed that their participation was completely voluntary, and informed consent was obtained from each participant. Students were also told that their identity would remain confidential and that only personnel directly involved in the study would have access to the audiotapes.

The focus group and individual interviews began with an open-ended question about each student’s experience with the nurse instructors on their clinical clerkships. Participants were then asked semi-structured questions and were encouraged to discuss the ways in which they thought the nurse instructors enhanced or inhibited their learning. They were then asked for their perspective regarding the roles and responsibilities of the nurse instructors, and were encouraged to discuss the areas in which they thought the nurse educators could show improvement. Lastly, the students were asked if they thought that the use of nurses as medical school faculty should be continued. The length of the discussions ranged from 45 to 70 minutes.

RESULTS

Five major themes emerged from the data. Students agreed that nurse instructors: 1) Fill in gaps in knowledge by teaching basic concepts, 2) Provide a more comfortable learning environment than faculty, 3) Bring a lot of clinical “hands on” experience to the role, 4) Offer a supportive role to students, and 5) Bring organization to the clerkships. Each of these themes was first identified during stage one and then validated during stage two of the study. Each theme will be discussed below.
Nurse Instructors Teach Basic Concepts and Fill in the Gaps.

Students feel that nurse instructors teach fundamental concepts that residents and attendings often overlook. As one student explained, “They teach us basic procedures that we have to know. This is really good because the residents don’t have time to show us, but expect us to know it.” Students also believe that nurse instructors have more time and are more willing to give extra teaching sessions. Another student stated, “Attendings and residents are very stressed. It’s good to have someone accessible and a little more at our level, who understands where we are coming from.” A third student added, “I found that they were the most willing to teach. Residents don’t always have time to teach, and when they do it’s not as extensive.”

Many students believe that nurse instructors address basic topics that are difficult for students and break things down to a really simple level. They stated that nurse instructors review basic things like how a ventilator works, how to do a speculum examination, how to interview an adolescent, or how to perform a physical examination. One student elaborated, “The sessions with the nurse instructors are more for our benefit, as opposed to sometimes when you are on rounds, the attendings don’t think about what you need to get out of a rotation- the basics.”

Students like the fact that there is someone available to review procedures with them before they are asked to perform them on a patient. One student stated, “Residents won’t always stop to teach you, they will tell you just to go and do something. Therefore, it is really helpful to have someone available to go through it with us.”

Students believe that nurse instructors are able to uncover deficiencies in basic knowledge and have the time to create workshops or tutorials to cover these topics in order to fill in the gaps. Nurse instructors also teach the basic concepts that students are expected to know but are not uniformly taught. One student stated, “There is an expectation that we should know
basic things like what CPAP (Continuous Positive Airway Pressure) is, or what IVPB (Intravenous Piggy Back) means, but no one has ever told us."

**Nurse Instructors Provide a More Comfortable Learning Environment Than Faculty or Residents.**

Students see nurse instructors as less intimidating than faculty or residents and are more comfortable asking them for help. One student stated, “I feel a lot more relaxed to really open up and really tell them what I am thinking, when a lot of times I don’t feel like I can do that with my team or attendings.”

Because nurse instructors do not fill out student performance evaluation forms, students feel less intimidated and are more apt to ask questions. “A lot of times when you are with your team you are thinking that potentially since this person is on your team and they are going to evaluate you, you don’t want to ask anything stupid. You always want to look good to your superiors. Nurse instructors feel more like an equal. It’s more like someone who is on your side,” commented one student.

One student stated that he feels that nurse instructors provide a really non-pressured learning environment in which he feels comfortable asking questions that he wouldn’t have asked otherwise. He explained that before asking any question to his residents or attendings, he considers if it is a “safe” question. He explained that you never want to look dumb and ask anything that you should already know.

**Nurse Instructors Bring a lot of Clinical Experience to the Role**

Several students commented that they were surprised at how much they learned from the nurse educators. One student mentioned, “When I was in third-year and first heard about the idea of nurse instructors I thought, ‘What can a nurse teach me? What do they know?’ But I found
out that they really know a lot. They have a lot of clinical experience, even more than the residents. They are an excellent resource. It has changed my perspective.” Another student added, “When I was a third-year, I asked three of my residents to explain how a wedge pressure worked [the concept behind it] and they couldn’t tell me, the nurse instructor was the only one who could answer my question.” Another student added, “I was surprised at how much experience the nurse instructor had delivering babies and doing pelvic exams. She had a lot more experience than my residents.”

**Nurse Instructors Offer Support to Students**

Students feel that nurse instructors offer them support. As one student elaborated, “It’s somebody that you can contact if you are having difficulty with any issues or procedures, or anything else that comes up. It’s nice to know that there is someone there who is on your side.” Another student explained that nurse instructors “have more interaction with us on a more personal level. They know what we are dealing with in our everyday lives and they are good mediators when we are having problems”. A third student commented, “Nurse instructors are in a unique position in that they work closely with all students and also with all of the faculty and residents. They are in a good position to effect change, probably more than the clerkship directors.”

**Nurse Instructors Bring Organization to the Clerkships**

Students feel that the clerkships with nurse instructors are more organized and run more smoothly. One student described that on some rotations if a lecture or learning activity gets canceled, the students are not always informed promptly and may waste their time waiting around.
Another student explained that he sees the nurse instructors as the ones who pay attention to the details of the clerkship. He feels this is so because they are involved with it on a day-to-day basis. He stated that, “Nurse instructors know what is consistently lacking so they can effect change immediately. For example, they can change the schedules and make sure that they work out in terms of rounds, lectures and other activities. They make things run smoothly, making the most out of student as well as staff time.”

Students also reported that nurse instructors clarify and consistently reinforce expectations. As one student stated, “They [nurse educators] help ease us into the rotations and let us know how things are run. It’s nice to have someone there to say, ‘OK this is how you should be thinking about doing things’. They get you into the swing of things and help clarify expectations. This is important, especially coming in as a third-year and not knowing what to expect.”

Two students mentioned that nurse instructors benefit not only students, but faculty as well. “Someone is there to facilitate things between faculty and students. I can’t imagine that the directors or the chairmen have the kind of time that the nurse instructors do to field each student’s questions and concerns,” stated one student. The other student commented, “Nurse instructors are helping the entire department because they are helping the students work more efficiently. It’s a win/win situation, by helping students gain more and become more efficient faculty are also gaining more.”

CONCLUSION

From the students’ perspective, the introduction of nurse instructors has been a success. Students see nurse instructors as concerned about their educational experiences and instrumental in their learning. Although students mentioned that nurse educators are more effective on the
clerkships where their role is primarily teaching as opposed to administrative, overall nurse instructors are held in high regard. This is evidenced by the fact that the graduating class of 1999 voted to spend increased tuition revenues on funding for five more nurse instructors.

Although students value nurse educators, there is not any documentation that nurse instructors actually contribute to their learning. Future research should be directed at investigating whether or not the role of the nurse instructor actually augments student learning. One limitation to the present study is that the nurse instructors conducted several of the focus groups and interviews. Students may have felt uncomfortable discussing any negative aspects regarding nurses as instructors directly to a nurse educator. Although an attempt to overcome this was made by recruiting fourth year student facilitators to validate the initial findings with their classmates, future research should use unbiased personnel for all of the interviews. However, it is important to mention that there were not any negative comments mentioned to the 4th year student facilitators.

When nurse educators were first introduced at USC, some physician faculty members opposed the idea. Some saw the use of nurse instructors as another example of nurses taking over a physician dominated field. Physicians and medical school personnel at USC have learned to understand that the role of the nurse instructor is merely to augment physician teaching and not to replace it. To have nurses available to teach basic concepts, field questions and address the concerns of students maximizes the teaching time that students spend with physicians and enhances their learning experiences. The perception of physician faculty members of the role of the nurse instructor remains to be investigated and is an area that requires further research.

Nurse instructors in this role do not have clinical practices and are unable to bill for patient care. Therefore, either the medical school or an individual department must support
funding for their positions. Sources of revenue may present a barrier to medical schools as they consider hiring nurse instructors as medical school faculty. However, since there has been a change in the quality of education offered to medical students (Abrahamson, 1996) and faculty are expected to be researchers and clinicians first (Abrahamson, 1996), teaching is usually shortchanged. With this in mind, it seems reasonable to argue that some tuition revenue should be spent on something that students consider beneficial to their learning.

In summary, medical students view the role of nurse instructors positively. Students’ perceptions of their own learning and the efforts made by medical schools to augment their learning should be important considerations to us, as educators, as we continually search for innovative and improved ways to teach medical students.
References


Appendix A

Focus Group/Interview Protocol

1. Tell me about your experiences with the nurse instructors on your clinical clerkships.
2. What is your perspective of the duties and responsibilities of the nurse instructors?
3. In what ways, if any, did the nurse instructors enhance your learning?
4. In what ways, if any, did the nurse instructors inhibit your learning?
5. In your opinion, what benefits, if any, do nurse instructors offer the required clerkships?
6. In your opinion, what disadvantages, if any, do nurse instructors bring to the required clerkships?
7. Do you think using nurse instructors on the required clerkships is something that should be continued?
8. In what areas, if any, do you think that the nurse instructors could improve?
9. As a future physician, do you feel that your interaction with nurse instructors during your training will influence your perception of advanced practice nurses in the clinical setting?
CONSENT TO PARTICIPATE IN RESEARCH

Nurses as Medical School Faculty: Students’ Perceptions

You are asked to participate in a research study conducted by Maura Sullivan, RN, MS, from the School of Medicine at the University of Southern California. You were selected to participate in this study because you are a fourth year medical student who has interacted with the nurse instructors on all of the required clinical clerkships.

PURPOSE OF THE STUDY

The purpose of this study is to gain insight regarding medical students’ perceptions regarding having nurse instructors in their clinical training.

PROCEDURES

If you volunteer to participate in this study, we would ask you to participate in either a focus group interview or a one on one interview with Maura Sullivan, RN, MS. During this interview you will be asked several questions regarding your experience with nurse instructors on your clinical clerkships.
POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY

The school wide use of nurse instructors may be an innovative alternative to additional faculty in an era of growing demands on physician time. Having nurse faculty who can address common questions and review basic concepts can optimize the use of physician faculty time, allowing physicians to answer more novel questions, minimize repetition and move on to more advanced concepts.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

These interviews will be audiotaped. You have the right to review and/or edit these tapes. These tapes will be erased within one month of the interview. Only personnel directly involved in this study will have access to these tapes.

PARTICIPATION AND WITHDRAWL

You can choose whether or not to participate in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don’t want to answer and still remain in the study.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Maura Sullivan, RN, MS at (323) 226-6561 or (213) 919-4814 (pgr).
RIGHTS OF RESEARCH STUDIES

You may withdraw your consent at any time and discontinue participation without penalty. If you have any questions regarding your rights as a research subject, contact the Office of the Vice Provost for Research, Bovard Administration Building, Room 2203, Los Angeles, CA 90089-4019, (213) 740-6709.

SIGNATURE OF RESEARCH SUBJECT

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

________________________________________
Name of Subject

________________________________________  ______________________________
Signature of Subject                      Date

SIGNATURE OF INVESTIGATOR

In my judgment the subject is voluntarily and knowingly giving informed consent and possess the legal capacity to give informed consent to participate in the research study.

________________________________________
Signature of Investigator
I. DOCUMENT IDENTIFICATION:

Title: Medical Student Perceptions of the Role of Nurses and Education (in Core Clerkships) in Medical School Education

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