

American Medical Informatics Association Nursing Informatics History project

Purpose

The overall purpose of the Nursing Informatics History Project is to document and preserve the history of nursing informatics.

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Carole A. Gassert**Introduction: Carole A. Gassert, PhD, RN, FACMI, FAAN****Associate Dean for Information and Technology and Director, Informatics program, College of Nursing, University of Utah, Salt Lake City.**

Interviewer: Background – pre-informatics career and transition to Nursing Informatics NI?

Carole Gassert: I've always been a trendsetter. I was in cardiac surgical nursing for a number of years, was the first clinical nurse specialist at the University of Virginia, and I worked in the cardio-thoracic area. I was in that a number of years and then was recruited to go down to Atlanta to start an open-heart program at Crawford-Long Hospital, which was part of the Emory system, but not really thought of as part of the Emory system. I started an open heart program and we, at that time, had funding from the Carlyle Fraser Heart Center – lots of money – and one of our physicians went to Birmingham and saw their Hewlett-Packard patient data monitoring system. He came back and talked our administration into purchasing it. They did and it sat sort of unused for three years.

Then we had this meeting and I was asked if I would be interested in helping to implement an information system. I had not worked with a computer to that point in time, had not seen an information system, but conceptually it made good sense to me. I said we would do it, if: they would buy us anything we needed to make the system usable for nurses. That's how I got started into informatics. We made a site visit to Chicago, we recruited away the programmer, and he came back to Atlanta with us. We implemented the old Hewlett-Packard patient data monitoring system. That's how I got into informatics.

Interviewer: Was there an ah-ha moment when you got the implications?

Carole Gassert: There were several moments. It was a new cardiac program. We were very successful but we had to be careful what we did as a new program. The first thing was to allow the

nurses not to write down vital signs. That was the bargaining chip to get them started. We asked, “Why do you need to do that?” In fact, before we started the real implementation of the system, they said to me, “Your nurses will need to record vital signs from the monitor as well as from the patient.” I said, “No, we won’t. We’ll do one or the other; you choose.” They weren’t willing to just let us just use the monitor vital signs at that time, so we backed off for about six more months. Then, we came back to the table and they saw things a little more in favor of nursing. I said we would not record things twice. We would do it once. We put in some fail-safe checks so we knew that we were monitoring correct values. That was really an “ah-ha.” Related to that, we were asked to go to the medical intensive care unit and work with a young man who was probably 18 who had an enlarged heart and was having difficulty. He needed the balloon pump. The only nurses who knew how to work that were the surgical ICU nurses, the cardiac nurses. We took the balloon and a couple of my staff upstairs – there was no information system – and they said to me about two hours into working with this young man, “We like it better downstairs because we have an information system.” That really said the value in that.

We added things like systemic vascular resistance measurements, pulmonary vascular resistance measurements, started practicing at a whole different level of nursing. The unfortunate thing is we never wrote that up. We just did it. And we improved our care. We had results that were as good as Emory systems, so we started getting patients transferred to us who could not afford the cost at Emory but wanted quality care.

Interviewer: When did you start thinking of yourself as an informatics nurse?

Carole Gassert: I was a cardiovascular clinical nurse specialist when all that was happening. That’s how I thought of myself. This just happened to be another job. I was project manager for putting the system in. Then, I made the decision to go back for a doctorate. My mentor at the University of Texas was Sue Grobe. I went in to see her one day saying, “I like this thing called informatics, but I can’t find any literature.” I came out of her office with a stack of books so heavy I could hardly carry them. It was not the usual literature; it was

in proceedings from SCAMC as it was called then. That's how I was introduced to what was known, or became known, as informatics. At the time I started in it, we didn't have that title. It was just working with information systems.

Interviewer: Your major contribution?

Carole Gassert: I think the biggest contribution was starting the first informatics program in the world at the University of Maryland. I was hired out of the doctoral program to do that. There were no guidelines because there were no programs in existence. We had a grant from the Division of Nursing with very few guidelines in place. There was a skeleton curriculum drafted for the purpose of the grant and it was up to me to implement that. That was, I think, my biggest contribution to the field. And, I have continued to really push the envelope for informatics education for nurses since then.

Prior to that program, it was a lot of on-the-job training or conferences or workshops. But really no formal educational programs.

Interviewer: Was it exciting, scary, what?

Carole Gassert: It wasn't scary. It was very demanding. I had a month to get the curriculum together and present it to the advisory committee. I thought I was coming in with plenty of time to develop the program only to find out there were already ten students in the program. So one had to start very fast. That's been the nature of my career. I've taken on challenges like that all along. But, it was very exciting to see how successful the program was and we really were fulfilling a need in nursing. I went from Maryland to the Division of Nursing to help improve the inclusion of informatics in programs that were being funded by the federal government.

Interviewer: What was your work with HRSA?

Carole Gassert: My work with HRSA was to really get nursing informatics into the grants that were being written and really moving informatics across the ? health professions – not just nursing

informatics. The Division of Nursing fits within the Bureau of Health Professions, which was in HRSA (Health Resources and Service Administration). I was there for six years and I worked with CDC and other agencies to really try to get informatics more broadly accepted. I think we did. There was change in legislation in 1998, which allowed the Division of Nursing to start funding nursing informatics programs again. That all stopped with the changing of the law in 1992.

Interviewer: You had a role in making sure nursing was on the screen vis-à-vis funding, education, etc.?

Carole Gassert: That's right. It was to make people think about distanced (?) learning modalities, to make people think about how informatics should be in the curriculum. With the '98 legislation, the words "nursing informatics" really appeared in that legislation. That gave us a lot of need to help fund those programs.

Interviewer: Key people you've collaborated with over the years – how they had impact.

Carole Gassert: When you look at the people who are important in nursing informatics, I believe there are a couple waves that have occurred. The first wave included people such as Judy Ronald, Sue Grobe, Carol Romano was in the first group, our international friends such as EllyWenting, some of the people in England – Maureen Sholes (?). We had people in Sweden such as Hans and Ola Verding. They were very influential on the international scene. In the early days, people such as Judy Ronald helped with the curriculum; we had the scholars' program in nursing informatics to get people started. That was really the first wave. One of the people I really admired was Caroline Reading, who died at very young age, who was in the military and IVACed. She was on my dissertation committee to begin with and I really enjoyed her work.

There was a second wave. I believe I came in that second wave, along with Patti Brennan, Sue Bakken, myself. That really started the next wave of people.

The third wave is the people I've helped mentor who are now, hopefully, mentoring other people.

Interviewer: Your work with AMIA and IMIA?

Carole Gassert: That's the international influence I've mentioned. Yes, I've been involved ...I was chair of the working group for nursing informatics and then I was a representative to the International Medical Informatics Association. That allowed you to get perspective from an international level and find out we're working on some of the same problems and, in some places, our international friends are ahead of us. Some places they're not, but you find out it's not such a big world and we really are working on some of the same things.

I've thorough enjoyed going to the international meetings and sharing with colleagues what's happening.

Interviewer: Back to your early days – shifting focus more toward informatics; did you meet with resistance?

Carole Gassert: This was back in 1978 and there was almost nothing in the literature. There were only a few places that had systems in. El Camino Real was one; the Clinical Center at NIH was another. But we didn't have anything to go on. We just did this flying by the seat of our pants. Quite honestly. The nurses did not have resistance to this – most of them. There were some who would not learn to use the information system and we had to move them out of the ICU, because we went to totally automated record-keeping. We did not keep paper any longer. They would not make the transition and we had to move them. By and large, the nurses felt they were giving better care with the data that was available. I mentioned the example of the young man where we had to go up to the fourth floor. The nurses were not the problem. By and large, the physicians were not. But we did have one cardiac surgeon who liked to come into the room and not interact with the nurses. When we took away the flow sheets so that he had to come in and ask for help with punching buttons because he never came to any of our training sessions, he didn't like that. He

threatened to have the system taken out. The nurses and the other physicians went to administration and said, “Oh no, it really does a lot of good things for us.” He did not win his case, fortunately.

Interviewer: Overall vision, core principles.

Carole Gassert: I’ve stayed a lot in the area of education and contributed to the area of nursing informatics education. I believe it should be inter-disciplinary and now I’m saying, inter-professional. I think there is a difference. In fact, that was the paper I’ve submitted to NI 2006 – about how we are, at Utah, practicing in what I think is a professional education. We are not just having our students take courses from other professions, but we are delivering courses to both the medical and nursing informatics students together. We are physically housed in the same geographic space and our students interact. They have carrels side-by-side; we sit on committees back and forth; we are really trying to see how we can continue to do more and more inter-professional work.

Interviewer: That’s exciting?

Carole Gassert: It is. It’s a brand new building that we occupy. It’s fantastic. It’s a 158,000 square feet, almost all of it classroom space. But because of our collaboration, informatics has a suite on the fifth floor of this building. We command a view of the valley and the mountains – not a bad place to be. It’s very exciting.

Interviewer: Recruitment; what would you say to someone thinking about NI?

Carole Gassert: I think it’s a great place to be. With everything that’s happening nationally, attention is finally on informatics at the national level. Nursing needs to be there so we are sure that systems will work for nursing practice. I think we need more people prepared in the area and Charlie Safran has said this nicely to Congress – that we need at least 6,000 more people prepared in this area yesterday. I support that. In inter-professional education, you don’t lose your domain identity. We would continue with the nursing identity but we

would allow some broader perspective because we are interfacing with other disciplines as well.

Interviewer: What do nurses bring to the informatics table?

Carole Gassert: I do believe that nursing brings a perspective that is nursing to the table. That needs to continue. We are the largest group of care providers, we know what nursing is about, we need to be sure that nursing stays in the system. When we look at problem solving, nurses are very good at that. We've called it nursing process for years. But when we redid the standards of practice for nursing informatics, we looked at it from a problem-solving approach rather than the nursing process. That seemed to fit better with our practice because it is not a clinical practice. I still believe there is room for everything, but nursing needs to maintain their identity and continue to work in the area.

In our inter-professional education, nursing won't go away. There's no intention of combining our programs, but instead, strengthening our programs by sharing resources.

Interviewer: Where will the opportunities be? Where will the field go?

Carole Gassert: I think we have to, as nursing, look at these changing roles. We now have a clinical nurse leader role, we have a proposed doctorate of nursing practice, both of those roles have a very strong informatics base. I think we're going to be asked to include more and more informatics in the general curriculum. I think that needs to be. At Utah, we're finalizing a contract with Cerner, so that we'll be implementing an academic education solution and can start from the very beginning preparing nurses to work with information and information systems. I think more of that needs to happen. And we need to have nurses prepared to work with information management so that hospitals don't have to train them to do that when they get out.

Interviewer: What do you enjoy most about your career?

Carole Gassert: I like a challenge. I like doing something different. I think everything I've done has been along that line. Way back in the very beginning, there were not intensive care units. I helped to start an ICU. I worked in the cardiac program as a student nurse, in charge, making very important decisions. And then I was a clinical spec where there had been none before. Then, starting the nursing informatics. It's been fun for me to keep developing new and different things.

Interviewer: Biggest challenge along the way?

Carole Gassert: Some of the biggest challenges in informatics education is having adequate faculty. When I was at Maryland, there was a time when I taught all the courses and had 50 students and we could not get additional informatics faculty. Then we were finally able to bring some in. When I was at the Division of Nursing, people submitted grants for informatics programs that did not have faculty listed. That always seemed to influence the reviewers who said, "Where are you going to get the faculty?" We need to prepare more faculty in the area of informatics. We need to do that as quickly as we can.

Interviewer: Leadership issues; lessons you've learned?

Carole Gassert: There are a lot of lessons learned. You have to be a risk taker. You have to think sometimes out of the box and be willing to take criticism for that. Not everyone was in favor of a doctoral program in informatics at Maryland when it was started. I was challenged about, "Where's the theory; where's this; where's that?" You have to be able to think a little differently. One of the challenges is keeping a balance between work and play. In nursing, we tend to get in sometimes and work and work and work and forget that there is life. People need to step up to that challenge and keep things balanced. Unfortunate.....an environment where balance is valued. That's very important.

You just have to never let people say it can't be done. Just look at how it can be and just keep on moving. If it's a good idea, you'll figure out a way. And you'll be successful.

Interviewer: Elaborate on the push-back when you were starting the doctoral program.

Dr. Carole A. Gassert

Nursing Informatics Pioneer Interview

Page 9 of 12

Carole Gassert: People would say to me, “Where is the nursing informatics theory?” And I said, “We don’t have any but we are very good users of other people’s theory. We can look at linguistics; we can look at cognitive theory; we can look at decision theory. I can go on and on – change theory. There doesn’t have to be a specific set of theories that apply only to nursing informatics, because, we are borrowing from other disciplines. And, I don’t believe that nursing informatics works in isolation from these other disciplines. It’s very natural for us to borrow theory from these other fields. That was one challenge.

The other thing we did was have a pretty prescribed program so that if you came into the doctoral program without an informatics background, you had to take course work. We didn’t let you just take one or two courses and then do research in the area. We made you go back and take a lot of the master’s courses so you that you had a good foundation to build your research on. That isn’t always accepted in doctoral education. Some people think you should not make people do that. That was our philosophy and it worked well.

Interviewer: Is cross-disciplinary work raising appreciation for nursing?

Carole Gassert: One of the great outcomes of inter-professional education at Utah has been an appreciation of nursing informatics. When I went out there three years ago, some of the discussion was, “Why do we need a nursing informatics program?” Now the discussion is, “We really value nursing informatics education; how can we help you with your program?” There’s been a great deal of understanding learned between the two programs and we’re not hearing how we should go away and we should feed students only into the medical informatics program. I think we’ve both gained from this.

Interviewer: What are students you’re mentoring interested in – that third wave?

Carole Gassert: One of the real rewards in teaching in nursing informatics is all the students you have an opportunity to impact. I won’t get all the names but just a few:

Patty Abbott was my student at Maryland in the master's program. She's gone on to get a doctorate through information services sciences. She's very prominent in AMIA and the international scene and is now work as director of PAHO. She's one example.

Another is Nancy Staggers. She was my student at Maryland as well. Nancy is on faculty at Utah now. She had taken a brief hiatus and was working as a CIO. She was assistant CIO in the University of Utah system, and working as a project manager for Catholic Healthcare West. She's done that piece. Plus, her army career; she was in the army when she joined us.

Dave Williams is another person who's in the military who's been very successful in setting up information systems.

Kathy Rebco (?) is another person who worked for vendors. Interestingly, I ran into her again in Salt Lake City. She's working for Intermountain Health Care. And is very involved in their nursing documentation project that's going on.

Amy Walker is another student who wasn't sure she wanted informatics but in talking and counseling, she stayed in the informatics program and has gone on to work in the vendor world with research and development.

We just have students from the two programs all over the United States – working for vendors, consulting firms, in hospitals in very high positions, and doing very well.

These students do quite well when they come out of the programs. They're very much in demand.

Interviewer: Are you involved in some of the things going on in Utah?

Carole Gassert: There's a lot of computer work in the state of Utah. I don't think people realize that we have such an active vendor-development community in Utah. We have a lot of people working in that area. IHC is the largest health care provider in the state, but then we have

University Health Care. They are currently implementing the Cerner System in that hospital system. I'm involved in terms of helping the students with placement for their practicum experiences and I will be helping to implement the academic education solution of Cerner in the University of Utah College of Nursing. I'm involved in that respect.

End of Interview