

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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Patricia Abbott

Patricia Abbott: Okay, my name is Patricia Abbott, A-b-b-o-t-t. Currently, I'm the Co-Director of the Pan American Health Organization, World Health Organization, so PAHO WHO, Collaborating Center for Nursing, Information Knowledge and Management at the Johns Hopkins School of Nursing. I'm also an Assistant Professor there.

Interviewer: How did you make the transition into informatics?

Patricia Abbott: I made the transition into informatics quite by accident, and I think what you may find is that a lot of people ended up in informatics quite by accident. So I call it serendipity, or providence, or whatever tag you want to stick to that. In reality, I had gone back to school. I was an associate degree-prepared nurse, worked in clinical nursing for a long time, and became discouraged getting passed over for leadership positions because I didn't have the credentials and the degree. So I went back to school to get a BSN. My final semester, my advisor said to me, 'Oh, my God! We just realized you need another 3-credit course. And we're offering something new, never been taught before. It's called 'Nursing and Computers.'" So I took the course truly as a... to fill a gap in my curriculum, having no idea what I was getting into, had never really interacted with the computer, and ended up taking a course with a woman named Lori Spronzo, who was one of the pioneers, I believe, in nursing informatics, who unfortunately was involved in an automobile accident and died thereafter, so a little light went out in our field at that time.

So I feel as though sort of Lori Spronzo and this whole idea that I needed 3 credits. 'So, please, take this course.' So I did. And it sort of fit well with me because my dad often laughs and says when I was a child all the other little girls were out playing with Barbie dolls while I was disassembling toasters in the garage. So it maybe it was sort of something that was in the cards that just, just sort of materialized out of chance.

Interviewer: What did you start doing in informatics?

Patricia Abbott: Well, it was interesting because as I took... the way that I sort of progressed into informatics was that by taking this simple 3-credit course that I needed to finish my bachelor's degree, Carole Gassert actually approached me and said, 'We are starting a new program'—she was a friend of Lori Spronzo's—'we're starting a new program at the University of Maryland School of Nursing, and it's 'Nursing Informatics.' And I was like, 'Gee, what's that?' And ended up in the program as the first cohort that came through the nursing... the newly-funded nursing informatics program at the University of Maryland. So I got for a long time people saying to me, 'Oh, you're back in school. That's really neat. What are you doing?' And I'd say, 'Nursing informatics.' And they'd all look at me and say, 'What's that?'

So it was sort of at that time, because this was very new—this was in the late 80's—a very new field. No one knew what it was. So I primarily spent the first couple of years trying to explain to people what this whole domain of nursing informatics was.

Interviewer: What kinds of different things have you done in informatics?

Patricia Abbott: Well, uhm, when I finished a master's degree at the University of Maryland, I actually spent six years with the Veterans' Affairs Medical Center in Baltimore, where I was a clinical specialist—because I was master's-prepared—a clinical specialist for information systems in something called a GRECC, which is a Geriatric Research and Education Clinical Center. And I really was detailed to the biostatistics informatics core. And at that time, they weren't exactly sure what that was either, however, because we were a research facility and a grant-writing machine, we were punching numbers, collecting data, and these sorts of things.

So I spent several years at the VA, and came to the realization that I had my own questions I wanted to ask. And if you're working in a research-intensive environment with a master's degree, you are always going to find yourself answering someone else's

questions. And as I started to mature within the field, I realized I had my own questions that I wanted to ask. And it wasn't that I didn't enjoy the interaction, and the multi-interdisciplinary mix that was at the, the GRECC, the Geriatric Research and Education Clinical Center was fabulous, and it really, truly influenced the rest of my career—research-intensive, interdisciplinary, and working in teams, and figuring out how informatics is not just a separate entity. It's really a thread that runs through your entire enterprise. I learned an awful lot, and... but after these years of answering other people's questions, I had my own, so I decided to go back for additional education, where I did a second master's degree, and then a Ph.D. in operations analysis and information systems.

Interviewer: What kind of questions were you interested in?

Patricia Abbott: I was... primarily, because I was working in gerontology and I have a very soft spot in my heart for geriatric patients, I feel as though that influenced the further direction and the questions that I... that started emerging in my mind that I wanted to answer on my own accord. So what I was interested in when I got to looking at the problems that we have with the elderly in the United States and elsewhere, but at that time I was primarily focused U.S.-centric, was that I was appalled at the quality of care that we give to our older Americans in, in extended care facilities. And I was primarily raised by my grandparents, so I had a very special place in my heart for older Americans, and working in the GRECC made me even closer to that. And I started realizing that there were real issues with the quality of care that we were providing to our older generation. And so I started to look at why is it that these things happen in long-term care facilities? Why is the care so low? And a lot of it has to do with the fact that we provide a lot of care in long-term care facilities, however we have no way to track that. We don't know what we're doing. Are we doing... as Florence Nightingale said, 'Are we doing more harm than good?'

And so I became convinced that it was a matter of data. So, you know, you cannot manage what you can't measure. And unless we are able to start counting and quantifying what happens to patients in the entire health care continuum, I really believe that we can't make things better. And that's how working in research and geriatrics and informatics put on top of that my passion became 'How can we improve the quality of care that we are providing to our patients?' And I just happened to focus that in gerontology at the time.

Interviewer: Who were some of the key people who you think have impacted the field?

Patricia Abbott: Well, there have been a whole set of pioneers. So we look at this multi-generational. For example, this morning, I had breakfast with Carole Gassert and...

Patricia Abbott: ...this morning with Sue Grobe and Carole Gassert. And I called Sue Grobe 'Grandma,' not because of a chronologically issue, but simply because if you look at the way informatics in nursing has grown, it's multi-generational. So Sue Grobe was Carol Gassert's mentor. Carol was the one, with Lori Spronzo, who got me involved in the informatics program at the Nursing School at the University of Maryland, and sort of gave me that first boost out the door. We can, of course, always speak about, you know, Virginia Saba, and Harriet Worley, and Kathleen McCormick.

I also need to mention, I think, someone who really influenced me in that regard was Sue Sparks from the National Library of Medicine. She was more into educational technology, but at the time, we hadn't really teased apart educational technology from nursing informatics, so there was sort of this conceptualization of nursing informatics as anything that has computers involved with it. That has, of course, sort of split off a little bit. But Sue Sparks was the one who gave me tremendous opportunity, got me involved as a master student in the National Library of Medicine Initiative. She put me on, suggested that I join several study sections, and that really, really boosted my career, because she facilitated my entrée in study sections, grant review sections, where I was so incredibly junior, but it was a wonderful learning opportunity. And I will never forget

Sue Sparks for that bit that she offered to me, and the wonderful experiences I had at the National Library of Medicine that have continued from that day.

And there are a lot of other people as well. Barbara Heller, who was the Dean of the School of Nursing, who I think was an incredible visionary in getting this first program funded, also has really influenced my career, and many other people along the way. Sometimes I find it's very difficult to try to enumerate everybody because inevitably you forget someone. So I just put a blanket statement out. There were a lot of people. Those are the folks that sort of come to mind first.

Interviewer: What do you see as your major contribution to the field?

Patricia Abbott: I believe that my major contributions to the field of nursing informatics center on advocacy, policy, and education. So once I left the GRECC, the Geriatric Research Center at the Baltimore VA, I sort of came out of bedside clinical involvement in nursing care. What I then became was an educator, and so spent six years as the director of the graduate programs in Nursing Informatics at the University of Maryland in the School of Nursing, and I believe... the program was hugely popular at the time, massive numbers of students. It was the largest in the world. So I like to think that maybe I played just a small role in creating this third-, fourth-, fifth generation of nurse informaticians that are now out in practice. So I think, really, it was maybe my enthusiasm and my passion for what I do that has maybe infected a newer cadre of folks that are out now in the world.

I also would like to think that what I have tried to do is to instill in my students and the people in interact with that informatics is not practiced in a vacuum. It truly is a thread in a very rich carpet of patient care and the process of patient care. So in the past, we used to... when I went to nursing school, we learned nursing research in a separate sort of 3-credit class. And that's where you learned it, and that was it. Now, we're teaching our nursing students... nursing research is infused through the entire curriculum. I... that's the way that I and many others are trying to push informatics, is that it should not be taught in a vacuum as a separate, independent 3-credit course. It should be woven into

every single class that we teach, that every basic essential core competency in nursing has a data or an informatics components to it.

And I really believe that maybe that's one of my other contributions, is getting faculty and administration to understand that this is truly a thread. It needs to be in every course. So before you make a decision to take a blood pressure on a patient, you have to understand that patient's story, that patient's history, and it doesn't come from paper.

Interviewer: Talk about your current assignment.

Patricia Abbott: Yeah. I am the Co-Director of the PAHO WHO Collaborating Center at the John Hopkins School of Nursing. It is the only one in the world right now that is focused on nursing data information and knowledge. It is a very interesting and challenging position, because we are detailed under the region of PAHO, with is the Pan American Health Organization, so we're focused in the Americas. However, the WHO mission is care for the world. So some of my involvement has been in Sub-Saharan Africa, where we see tremendous tragedies everyday that, that could be... related to health that could be fixed with multinational efforts. However, it's, it's very challenging. There's strife, and there's poverty, and there's tremendous disease. But I see so much of what we deal with there is a lack of information. So that nurses in the field, in these remote field-based settings say, 'We can't approach our parliament or our governmental agency because we don't have the data.' Our vaccine providers, the big pharmacology industry is saying, 'We cannot... we can no longer afford to give you free vaccinations for your populist unless you can tell us where they're going, who you're giving it to, what's your follow-up rate, and, you know, is it being sold on the black market or is it getting to the population that we want.' And the nurses in the field, or the care providers in the field, which 'nurse' is a term to be used loosely, because they don't... they're not the same in Sub-Saharan Africa as they are in the U.S., are saying, 'I have no way of being able to channel that information back to my ministry of health. Tell me how I can capture my data. How can I make a better case?'

So at the international level, I'm sort of working at a top level of policy, but at the same time I have my ear to the ground listening to the nursing population, the caregiver population that is in the field. These are not physicians. You can go into Malawi and parts of the Western Cape, you won't a physician anywhere. All the care is provided by nurses. And they need support. And it's all support, from mosquito netting to PDA's. And it's amazing how technologically-savvy these folks are. And even though people... you know, I'll have... my students will say to me, 'Oh, Dr. Abbott, how could you possibly talk about putting information technology into a clinic, when they don't have electricity and running water?' Well, the way they get the electricity and the running water, one way, is to be able to prove the value of what they do. And they can't do it without data.

And one just quick little story I can tell you, and this came from Julia Royal, who works with the National Library of Medicine and is involved in the malarial project. She had I had... have had several conversations. And she said to me, 'We have providers that by 10 kilometers just with a bike, saddlebag...' nurses, she's talking about... 'Saddlebags on the back of these bicycles and a kerosene lantern. And they bike 10 kilometers out into the bush and the go to a cinderblock building, no windows, no electricity. She lights the kerosene lamp. She hangs it. She pulls out all of her vaccinations, immunizations, things that she has there, and she spends the entire day with no electricity working by a lamp in a very small little cinderblock hut. She records every bit on her data on her PDA. [huh] She bikes 10 kilometers back. She plugs it in, and she uploads. And then, all of a sudden, everything she's done, all the good that she has done in the course of the day, is now physically present, countable and knowable by the Ministry of Health.'

And so this is the story I tell my students when they say, 'Don't talk to me about information technology. Give them water. There's a tradeoff and there's a balance.'

Interviewer: What would you say to somebody who is interesting in nursing informatics?

Dr. Patricia Abbott

Nursing Informatics Pioneer Interview

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Patricia Abbott: Nursing informatics is an incredibly rich domain. So when I have students approach me and say, ‘You know, why should I become a nurse informatician?’ First, has to be the passion to make a difference. If you’re in this for the money—and that’s not to say there isn’t a huge amount of money to be made. It is a very lucrative career path, and we do have people that are really looking, you know, that angle, and, and there’s nothing wrong with that—but if you are looking to make a difference in patient outcomes and the process of patient care, nursing informatics is where it is. And I believe that with all of [mike noise] my heart and soul, because I really believe that until we get control of our process and what we do, we are going to have a very difficult time impacting on the quality of our care.

So I use an analogy quite frequently to the firestone fire tire disaster, pardon me. The Firestone Tire disaster. And, hopefully, you’ll recall that. You know, Firestone had to do a massive recall. There were blowouts. People were killed and injured because of... there was some sort of a fault in the construction of the tire. Now... and I’m not saying that healthcare or nursing is an assembly line, but when you look, when you can take the, the rules and the proce... the, the foundations of business management and apply it to healthcare, you can learn many important things. So, for example, the Firestone disaster, they, they collect so much data in the... transaction-level data of what you do at every moment... from the moment the, the rubber comes out of the tree in Malaysia and ends up on someone’s tire, every piece of that data is collected. So when the Firestone disaster started, Firestone was able to go back and track from the moment the latex... or the rubber, pardon me... came out of the tree to the moment it was installed on the car, because they captured the data all along the way. They were able to figure out where the tire was manufactured, what plant it was manufactured, what day they were manufactured, what shift, and what people were manning the shift. They were able to do that because they capture process-level data. They were able to back and find out where is the weak link.

We don't do that in healthcare. We are, you know, primarily focused on claims-based data. We don't look at what does the nurse, and the physical therapist, and the occupational therapist, and the dietician, all the allied health professionals, what contribution do they make to the process of care. And I am just passionate that until you can see what everybody contributes, good and bad, that we are not truly going to be able to get to the root of the issue with our problems with quality of care. And I think that nurses provide the vast majority of that care, especially... you know, all the way from acute care, to community-based care, to home healthcare nursing, to SNF's [?] and long-term care, nursing is there at the forefront. And I really think that we make wonderful contributions to patient outcomes, but we're invisible. And Norma Lang has told us that for a long time.

Interviewer: What's the biggest challenge?

Patricia Abbott: I think the biggest challenge that's facing nursing informatics right now is com... it's complex, and it's not just one factor. I think that slowly but surely, the public and the policymakers are becoming aware of this concept of you need to look at nursing and allied health activities not as a task but as part of a process. So if you want process improvement, you have to know all the pieces of the process. So I think one of the challenges facing us is to make sure that our leaders and our policymakers and our folks in Washington understand the important contributions that nursing makes to the quality of care.

I think another big challenge is... and I see this in my own experience in, in academia, and we see this also in the clinical environment—it's almost like we have two generations of people. We have our young, new up and coming nursing. And when I say young, I don't necessarily mean from a chronological standpoint. These are people that think differently. They've come through the educational system just recently where everything is automated. And they come... there's a... like a culture clash. They come into not only academic settings, where we have a lot of nursing and nursing faculty that

haven't got it yet, they don't understand the importance of information technology and how it's just... it's just a part of doing business in healthcare today. So they're rush... they're coming up against faculty who don't get it. And then they come out of the programs and into the real world, and there are nurses that have been out of school for 10-, 15-, 20 years, who also don't get it, and feel very threatened by information technology in healthcare.

So I think that's actually one of the drivers for change, is that we have a younger generation that's coming in, and, and pushing the faculty, and pushing those out in practice, saying, 'Why are you writing that on a piece of paper like that? Why are you recording your nursing assessment on the leg of your scrubs?' which is a very common thing for nurses to do, or on the... 'on your hand, or on a paper towel and stick it in your pocket?' So our, our younger generation, and younger, again, not speaking chronologically, but are just recently educated and on-the-edge folks are really pushing us. They're challenging us as faculty and as current providers to get on the wagon and figure out, you know, how to do this and how to integrate it in our care, and to do it in a seamless fashion. It's challenging, it's very challenging.

Interviewer: Are there any lessons that you've learned so far along the way that relate to leadership?

Patricia Abbott: Well, when I think about the lessons that I may have learned over time, and how I have taken those lessons and tried to make it into a, a message that I deliver—and you'll have to forgive my colloquialisms, because I was sort of raised rural by my grandparents and... but, anyway, I often tell faculty is that you see what's coming. Okay? You know what's coming down the pike. You cannot avoid this. Your banking is automated, you know, ever... you know, everything is going this way. I mean, I couldn't imagine not having a microwave, you know. So I often say to them where you are with informatics right now is that you... there's a dawning realization that this is coming. And it's sort of like having this idea that you need milk. And so you so out with a three-legged stool and you sit in the middle of the field and you wait for a cow to back up to you. You know,

this is my grandparents coming in. It ain't going to happen. Okay? The cow is out there, but you've got to go find it. So I tell my faculty and nurses that I run into along the way you have to go out and find it. It's not going to come to you in a pleasant way. It will come to you, but it will run you over like a freight train.

And Kathy Wausome, who was also another leader years ago, and not so much informatics, but she touched in the educational technology realm; she also had a lot to do with rural health. She often had a quote... she had a quote that I used to often use, and it was 'On the information super-highway are nurses going to be builders, hitchhikers, or road-kill?' And I often said, 'I sure as heck don't want to be road-kill and I don't want to be a hitchhiker.'

So my lesson to other people, and I think where some of my leadership has come out, in telling people, 'Don't bury your head in the sand. This is coming. Make informatics work for you.' And I think nurses can only do that by speaking out, getting involved in public policy forums, making your needs known. Go up to... you know, go up to the leaders and say, 'Hi, my name is Patti Abbott, and I want to help you on that.' That's how I got involved in the stuff that I did. I went to Sue Sparks one day and said, 'You are doing some really neat stuff at that National Library of Medicine. Do you need any help?' And she called me. Had I not said that to her, she wouldn't have called me. The same thing with Kathy Mulholland was... who was another person I didn't mention earlier, Kathy Mulholland. I said, 'You're doing some really neat stuff at ANA. You need any help?' And she said, 'Sure, I'll put your name on a list.' And I ended up being called as part of the group, the first group that created the *Scope and Standards of Practice for Nursing Informatics*, which was a first time we were defining the field. We created a certification exam. Some of the most valuable lessons in my life, and I got involved simply because I wasn't a pioneer at the time. I was a newbie, but I was a newbie who knew.

[change tape]

Interviewer:

Patricia Abbott: My involvement started with the ANA, initially, through the help of Kathy Mulholland, who was a Senior Advisor at the ANA at the time, she was a senior fellow. And it was after she had completed the survey that showed that there were supposedly 5,000 nurses in the United States that were practicing informatics. So the ANA saw that as evidence that there... we should begin to define a scope and standards of practice for informatics, nursing informatics as a specialty area. So Kathy worked with the American Nurse Credentialing Center because the ANA, American Nursing Association and the ANCC, the American Nurse Credentialing Center, are under the same parent organization, but they're two separate entities. Kathy was at the ANA. So she began talking to the people at the ANCC, and they decided through voting through the House of Delegates that they would approve a new specialty of nursing informatics because we had met these certain criteria.

Then they began... and that was actually lead at the ANCC through a woman named Dr. Carolyn Lewis. And Carolyn and Kathy collaborated together and decided they really wanted a mix of the old and the new. So we need to anchor this with some very established people who have been in nursing informatics for a long time, but we also want to bring in some new blood, some fresh perspective. And I happened to be one of those people, again. I'm passionate about this. If you want to do something you got to volunteer. So I was in Kathy Mulholland's face all the time, going, 'If you need any help, call me. Call me. Call me.' And she called me.

So I applied. It was a competitive process, and a lot of people were named to create that new scope and standards document for nursing informatics. And I was very honored to be involved in that. It was a tremendous learning opportunity. But I also felt as though from the very beginning I got to help define the field. Our scope and our standards document is what... it's our standard of practice for how we practice nursing informatics. And that was the first one that was created, and we followed up about a year later with

the certification exam that I learned a tremendous amount there, too. At that time, it was the ANCC, the American Nurse Credentialing Center's first online exam. And how apropos, you know, nursing informatics was going to be the first exam.

So, unfortunately, for the... at that time, I was not in academia yet. I had just finished my first master's in nursing informatics. Little did my students know, or my students to come, that part of the job of creating that exam was to actually go to Princeton and learn how to write good test questions. So that impacted on my students for the rest of my academic tenure, and still is, because I write a wicked question. So I learned an awful lot there, not only just about politics, but also... and process, but I learned about structure.

Interviewer: Who are some of the folks that you're helping bring into the industry, and what are the up to?

Patricia Abbott: Well, it was interesting, I, I recently left the University of Maryland and went to Johns Hopkins' School of Nursing, and when I look back to see who I may have educated or influenced over time, when you go to another university, of course, you have to provide them with a full-blown CV that lists everything you've done over time. So it was quite an effort. But when I put it together, I realized that I had 160 students that I did master's theses with, and I went through and I look at that list. It was sort of like a walk down memory lane, and seeing all the students that worked with me or that I advised over my tenure at the University of Maryland in the Scholl of Nursing. And I'm proud of all of them, and they've all had different accomplishments in different spheres, some of them that has become more prominent than others. For example, Linda Fischetti, who is now detailed... she actually works with the Veterans' Affairs, but she has been detailed to David Brailer's Office, and she is making a tremendous impact. I've been so proud of Linda Fichetti and everything that she does. She's also incredible involved at the standards level, national standards level, and she was a lead architect in the development of the Standards for Electronic Healthcare Records Systems. And so I look and I see

Linda Fischetti's name, and I... and I, again, just like to think that I may have played just a small piece in her life. And she's off now doing wonderful things.

There are also students that I had, who have made all sorts of contributions. Susie Bebee, who is now also very active in the Washington scene. I have Jerry Chamberlain, who is with Cerner right now, and is doing incredible work.

And, you know, again, I feel bad. I, I couldn't possibly enumerate them all, and inevitably someone's feelings get hurt because you left them out, but you do the best that... the best that I can. I'm proud of them all, and some of them have just really gone out and made quite a name for themselves.

Interviewer: Why nursing informatics?

Patricia Abbott: Well, I believe that nursing informatics is an incredibly important part of the whole informatics team. However, I don't view nursing informatics as nurses practicing separate. I really... Patti Brennan, who was another one of... a tremendous mentor for me—I don't know how I could have possibly forgotten to mention here. I think she's probably the pinnacle of a mentor for me—wrote an article. It was called 'On the Relevance of Discipline to Informatics.' And I think the point that she makes there, and I've carried that with me for my whole career in this, is that there are very different and important things that nurses do that must be represented in the electronic healthcare record systems of the future. We have distinct needs, as do physicians, as do radiologists, as do pathologists, and laboratory medicine folks. However, it's all part of the bigger scheme. So when I talk to my students and clinicians in practice, I like to focus more on the patient as the center. So it's almost like patient informatics, and we also contribute into the process. I'm a huge process person, and I really think that keeping nursing informatics as a totally separate entity is a mistake. That's why we sort of also got away from the concept of a nursing information system. It's a patient information system, and all of us play a role in that.

And the other thing, I guess that I could add to this is that part of my goal as an educator is to get people to understand not only at my own university, but in universities around the world, is that if you want to teach informatics, I have a mantra, and it must be 'thy hands will touch the keyboard,' because trying to teach someone informatics out of... by just lecture is like trying to teach someone how to play the piano by reading a book. It's can't be done. You have... it's all about integration, all about integration, not only in process of care, but integration in the curriculum, integration in the policy, and integration into research. And so I think it's just really important we talk about nursing informatics, but it's, it's part of a very, very rich carpet of patient care. And my particular feeling is that's what it's all about. It's about the patient at the center.

End of Interview