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 Button

Interviewer: Pat, can you give me your full name, your educational background and your current title.

Patricia Button: My name is Patricia Button, I have a bachelor's degree in nursing from Columbia University a master in nursing education from Syracuse University, and a doctorate in education from the University of Vermont. And I am currently the Director of Nursing at Zynx Health.

Interviewer: Let's go right to the basics Dr. Button, how would you describe nursing informatics?

Patricia Button: Well describing nursing informatics is a challenging, a thing in a conversation, there is the well known ANA description of nursing informatics the combination of the various sciences. I think from my personal perspective, when I think about nursing informatics, it really is um, a science a practice of nursing based on an in depth understanding of the professional nursing process—what is involved in providing care to patients and then using information science, technology to represent that process of care in a way that we can understand it, measure it, project its impact, measure its impact.

Interviewer: Dr. Button, briefly describe your career in nursing that led up to your involvement in nursing informatics.

Patricia Button: Um, my path to nursing informatics was, I, I think somewhat traditional for people of my age group. Um, which is over 40 *[laughing]* and less traditional for those who are currently coming into informatics. So I graduated from nursing school. I had positions as a staff nurse, as a clinical nurse specialist, I got my masters degree and taught in both diploma and bachelorette programs. And then took a position at Dartmouth Hitchcock Medical Center as their Quality Assurance Coordinator. This was the olden days when we called Quality Improvement, Quality Assurance. And that was really the point at which I began to appreciate and be really driven to have the ability to collect the data about what nurses do. And that's, that's what gave me my passion for informatics and using the capabilities of informatics to understand nursing.

Interviewer: You almost answered this already, but, did you have an 'aha' moment when you realized this value of informatics?

Patricia Button: I think the point in my career at which I thought 'oh we have got to do this,' and when I say "do this" – I mean it's really use informatics competency skills/approaches was when I was working on a project to implement automated clinical nurse care planning and documentation and we were trying to build a database—and we really were trying to build a database and we were very lucky in this effort that we partnered with the very early stages of the NIC, Nursing Intervention Classification from Iowa and wanted to use that term set as a way of representing nursing in the system and what we can clear is that while that work was very, very groundbreaking, it did not provide us with what you might say were computational terms, terms that could be used in a clinical information system. And that was like 'oh, I've got to be part of figuring this out'—so that was really my 'aha' moment, yeah.

Interviewer: Pat, when did you first consider yourself an informatics nurse?

Patricia Button: [laughing], when did I first think that I was an informatics person? I really think it was you know a number of years ago at an AMIA meeting, when I went to the nursing informatics working group. Which I'm not sure that that's what it was called in the absolute beginning, but it was 'oh this is what I do, this is what my identity as a professional person is becoming.' And my children and I actually joke about this a great deal because at that point I started giving a lot of presentations and so on and they would say "well mom, where are you going what are you going to talk about" and I would say "I'm going to talk about terminology" and you know, they would say "mom, does anyone come and listen to your speeches." And it was sort of at that point that I understood this is what I am becoming about. And while my children may not understand it, there certainly is a need and an interest in this in the nursing community.

Interviewer: Pat let's talk about your personal aspirations and your personal accomplishments. What overall, did you have an overall vision that guided your work?

Patricia Button: Um, a vision that guided my work. I think um, what has always guided what I have done as a nurse or a nurse informatician was the patient, and really being driven to change first of all our understanding of what nursing does and what impact that has, but also probably more fundamentally to change the outcomes the patients achieve or don't achieve related to what nursing has done for them. And so my, my mission, my goal is that by the time I quote stop, we'll be in a different place in terms of understanding nursing's impact being able to measure that—but also in really changing the outcomes that our patients derive from our care.

Interviewer: Pat, who are some of the people that you collaborated with to accomplish your vision and your goals, and do you have any memorable experiences with those people?

Patricia Button: Yeah, the people that I've collaborated with I think um, you know there are a cadre of nurse informaticians of sort of my age group shall we say or that you know the original developers of the nursing interventions classification and the various terminologies, Virginia Saba, Norma Lang, and all the work that she has done and is currently doing, Ida Androwich, you know I could go on and on with the list. So I *[no audio]* very close knit community of nurse informaticians who have collaborated and continue to collaborate. I will also say though that um, along the way there also have been very important partnerships with providers in various provider organizations, I've had the opportunity to work in a number of vendor organizations, um, and you know working with software designers, helping them to sort of break through and design software that actually supports nursing versus supports their vision of what nursing is. So I think that my whole career has been about partnerships and that's been sort of one my fundamental ways of working toward my vision recognizing that I'm one person, it's through a team and partnerships that we can get the most done.

Interviewer: Pat including your personal achievements what do you see as the significant events that have shaped the field of nursing informatics?

Patricia Button: I'm sorry; I don't know what you're asking me.

Interviewer: What significant events…

Interviewer: Don't be modest we want you to; you know why are you sitting here in this chair, why are we bothering to talk to you.

Patricia Button: OK, OK, because you said personal achievements, then you said significant events and I didn't know what you wanted me to talk about.

Interviewer: Well we can talk about personal achievements first and then significant events.

Patricia Button: OK.

Interviewer: Please tell me about your personal achievements that have helped shape nursing informatics.

Patricia Button: Um, personal achievements um, and, and, how that sort of played into the, the evolution of the field and so on. I think that um, without realizing it, in the project that I described in which we were developing clinical documentation, plan of care functionality and worked with NIC to embed that content, um, I, I think that that was really one of the first times that ever one of the ANA or to be ANA recognized terminologies were used in a clinical information system and it was demonstrating this is what we need to be doing. Now while what we did was not necessarily perfect it was a first step and I think a very fundamental leading first step. Um, I also have had the opportunity to serve as the president of the AMIA Nurse Informatics working group during a time when I think that group really broadened its efforts in terms of really defining educational competencies, etc. I also am a founding member of the ah, Nursing Terminology Summit which has been really a key shaper of what we're doing in terms of the use of structured terminologies, um, have had indirect involvement the work of SNOMED and just internationally really worked on this issue of structured terminology as a tool to represent nursing. And then more recently I've sort of taken that grounding if you will um, and I'm now really focusing on the use of structured terms to represent evidence based content to

get that into clinical information systems. So those are the things that at least for me I have felt have really been contributing in terms of moving the work forward.

Interviewer: Can you think of other significant events that have shaped the field of nursing informatics?

Patricia Button: There I think are many, many other things, um, that have gone on and are going on. I think that the work um, that nursing informaticians, the nursing informatics community has done with SNOMED with HL7, um, the growing representation from nursing informatics and government policy work, ah, is just really impacting what is happening in a way that without nursing could not happen in terms of the appreciation of what really makes up patient care. I mean physicians make up a very important part of patient care but without nursing it just wouldn't work [laughing].

Interviewer: What were the important questions addressed by research related to nursing informatics?

Patricia Button: Important research questions in nursing informatics, I think um, I mean we're having this conversation at ah, the AMIA annual meeting and there have been some, some very, very interesting studies presented at this meeting and I think that the, I'm stumbling a bit here because it's hard to separate what is informatics research and what is research that's enabled by informatics. And um, so I mean I think we've done a fair number of studies about the adequacy for example of terminologies to represent nursing. You know Sue Bakken has done a great deal of that research. Um, but now I think where we're moving is being able to actually study nursing because we have more robust, more informed informatics people and competencies so that now informatics is now more of a tool in the research than the research itself if that makes sense.

[Unrelated discussion]

Interviewer: Now Pat are you conducting research yourself, have you participated in research?

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Patricia Button: Um, my research um, has, has always been through other people. Um, you know I have never been um, since the time prior to getting my Doctorate [unintelligible] academician. So at this time, a lot of the work that I'm doing is really with clients of Zincs and Zincs provides evidence based interdisciplinary plans of care. And we with many of our clients are doing research to understand the impact of embedding structured evidence based content in clinical systems, both in terms of the nurse's experience of where is that content valuable in their workflow, but also understanding the impact on key performance measures, patient outcomes.

Interviewer: Pat, can you talk about how funding has influenced the research agenda in nursing informatics.

Patricia Button: Um, funding for, um, informatics research, nursing informatics research I think that many of my academic colleagues have actually been incredibly successful in obtaining funding. I think that it took a number of years to educate the funding community to what is nursing informatics, what nursing informatics research needs to be done for them even to—and then this meant with no disrespect whatsoever—but for them to be able to really look at a grant application and understand 'oh this is work that needs to be done, that we should be funding', um, and I think we're in really relatively speaking quite a good place about obtaining funding for informatics research right now.

Interviewer: Let's think about a little history—what were the earliest events you recall in your career related to nursing informatics?

Patricia Button: The earliest events that I recall about nursing informatics—now this is a topic that is risky because it will probably reveal my age! My earliest recollections are SCAMC meetings and coming to SCAMC meetings and um, having sent in a paper quite naively and had it approved and having Virginia Saba, Judy Ozbolt in the audience and not quite understanding how really good it was that they had come to my presentation—and then having discussions with them and coming to understand that this is work that's very important, it's not just this little project I'm doing up in New Hampshire, this is work that

has implications nationally and beginning the development of those collogue of relationships. I think that's, I can even envision the conference room where we gave this particular presentation you know.

Interviewer: Do you happen to recall about what year that was?

Patricia Button: It was probably…

Interviewer: Start again—"the year I was at SCAMC…"

Patricia Button: The year that I was at SCAMC that I was thinking of I would think is around '86, '87 sometime in that timeframe, yeah.

Interviewer: Are there any other early events that you'd like to tell us about, maybe social, political.

Patricia Button: Well other events—I think um, some of the events that really stand out in my mind is over the years both the national and international conferences. Um, in which nursing is grow, has, the, the presence and impact of nursing has really grown and also that the sophistication of the work has grown—to track over the years what is being presented at AMIA the various work that nursing is doing through the alliance for nursing informatics presentations that [unintelligible] all the other conferences as well as the international conferences. There just is this progression, some doctoral student should do a study and really track the development of the presentations that have been given in terms of the topics, the scope, the level of sophistication—it would be a fascinating study. Maybe I'll go back to school again [laughing].

Interviewer: Now you mentioned international events, can you name any of them, which international events are you thinking about.

Patricia Button: Well, I'm thinking of the AMIA conferences—you know every three year nursing informatics conferences, those primarily—that info.

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Interviewer: Can you say, is there, was there anything happening in the social and political environment that either helped or constrained the development of nursing informatics?

Patricia Button: Um, the social and political environment, um, I think has dramatically impact, impacted nursing informatics. I think that—if we think what's happened over the past 10 years related to healthcare, healthcare funding, etc., but also in terms of the visibility of the safety and quality issues in healthcare. Um, nursing, professional nursing and nursing informatics I think is very wisely leveraged those issues—the, the, really, the fact that these issues are in the public domain in a way to get funding, get congressional understanding of the issues so that as policies are being made as funding is being allocated that nursing is included in that funding so that we don't end up with a physician driven set of policies or physician driven funding that really just doesn't address a whole aspect of what we're about as we care for patients.

Interviewer: Do you think it was difficult to establish the field of nursing informatics?

Patricia Button: Was nursing informatics a difficult field to establish? I have to say I honestly still think that nursing informatics is a very difficult field to be in. I think yes it was difficult to establish because it's very hard to understand—the work that nursing informaticians do is complicated, in many cases very sophisticated, um, and I think we've struggled to have in schools of nursing, in universities, faculty who were not informaticians understand what nursing informatics is I think we've struggled in the provider sector to have chief nursing officer understand—and I think to some degree we're still struggling with that. To establish a basic level of competency and understanding this is really needed by all nurses, um, to leverage what pure nursing informaticians do.

Interviewer: You sort of answered this already—but can you tell me how the field has evolved and are you surprised at how it has evolved.

Patricia Button: How the field of nursing informatics has evolved and am I surprised—um, I not sure that I'm surprised, but I think I'm a little frustrated that it's still taking us so long that some of

the things that I don't want to say they seem easy but that I think we do have, we have developed an understanding, um, and that we're not consistently implementing that or we're not implementing in a coordinated way. So all the issues related to the different vendor systems, um, that compete with each other which really I think decreases our ability to implement a lot of what we've learned. I think that we still see these phenomenon in provider organizations doing the same things over and over again without really leveraging our learning. But that I also have to remind myself when I get a little impatient that we are all human beings and that's a factor that will forever influence our ability to implement what we learn in a speedy way.

Interviewer: Are there any lessons that you've learned that you would like to pass on?

Patricia Button: Well I think in terms of what I've learned—I'm not sure I would at this point talk a lot about you know—sort of hard core informatics things I've learned, although I think those are incredibly important. I think that one of my greatest learning's in terms of advancing in the field of informatics and probably any field is the incredible importance of mentorship. And I think that's something that the field, the community of nurse informaticians is very, very in tuned with and works hard to consciously you know really help and mentor, care for young nurse informaticians—um, both in terms of the growing number of educational programs but also I think our professional organizations AMIA, you know the Alliance for Nursing Informatics is very much caring, is very much about mentorship, and really being good to our young colleagues to make sure that they don't have to learn what we've already learned—but can work more towards implementing that.

Interviewer: Pat, you mentioned mentorship—did you have a mentor along the way?

Patricia Button: Did I have a mentor? I would have to be perfectly honest and say no—I certainly had colleagues, and whom I did and do value. But I think one of the things that was hardest for me um, was that in the organizations where I spent most of my time I really did not have a mentor and that probably one of the reasons that I appreciate and value mentorship

so much is that from a nursing informatics perspective, I really never had one and I missed that a lot, yeah.

Interviewer: Where do you think the field is going? What opportunities or road blocks are ahead?

Patricia Button: Um, in terms of where the field is going and what our opportunities are, I have to say that I think our—we have demonstrated that the opportunities for nursing informatics and education and research and practice and public policy are endless. I mean we are there and actually sometimes we have to volunteer ourselves or point out that we can provide that value, but more and more we are invited to be there. I think that one of the most critical issues right now is that we not sort of move away from the need for expanding and deepening the science. We've made huge accomplishments—we need to keep at that work I think very methodically to make sure that we move forward.

Interviewer: Do you want to say anything about the limitations of the field for nursing practice?

Patricia Button: When I think about the field and its limitations for nursing practice I can't—I mean I think in terms of limitations we're really still struggling with this issue of how do we make the work of nursing informatics relevant usable sort of digestible by the staff nurse at the bedside and um, I think we have a ways to go in terms of really understanding that bedside patient care, patient side workflow and how nursing informatics needs to support that. Um, so I think that's a limitation—I think one of the things I'm most excited about is we are getting closer and closer to the bedside in terms of the work that we're doing—understanding it, supporting it. To me that's just what it's about so [laugh].

Interviewer: Why do we say nursing informatics—what do nurses bring to the party?

Patricia Button: Why do we say nursing informatics [laughing] and not healthcare informatics, medical, yeah—that sort of is a long, long conversation. I think that, I think that most of my colleagues would say and I would say that we say nursing informatics because the science of informatics um, needs to be applied in the nursing domain in a way that it does what informatics can do in any domain and that is really understand, represent, quantify.

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Um, and we want to be very clear that the work that we as nurse informaticians do is focused on that nursing domain as opposed to some other domain.

Interviewer: Now this the end of my questions but is there something that you would like to revisit or something you didn't talk about you would like to mention, either about you, the field, somebody you thought of that influenced you.

Patricia Button: I think um, probably just another comment I would share is you know how very, very satisfying as a person, as a professional this work has been for me. Um, and how much I value this community—I mean the community, the nursing informatics community is a very basic and fundamental part of my life and you know some of my best colleagues and dearest friends um are in my life because of this community and I value that and I value tremendously the work that we're doing.

Interviewer 2:   OK, I want to go back to the second question and that's just how would you describe nursing informatics and just have you run through that one, one more time—then we'll take a look at both of them.

Interviewer: How do you define nursing informatics?

Patricia Button: How would I describe nursing informatics—that's, that's a challenging question—I mean what I could say is, what is the ANA definition of nursing informatics and how its evolved probably don't need to repeat that. For me how I would describe nursing informatics is a science a set of skills and competencies that provides us with the capability to represent nursing in a way that it can be represented in various systems in clinical information systems, in quality improvement systems, so that we can measure, um, we can understand, ah we can look at the impact of nursing in terms of what nurses do but also what we achieve with patients.

Interviewer: I think you would be surprised how close you were.

Patricia Button: I kind of got into it; I kind of got into it [laughing]!

[End of Interview]

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