ORAL HISTORY INTERVIEW WITH PAMELA DOUGLAS
Duke University Libraries and Archives
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COLLECTION SUMMARY

This collection features an oral history Joseph conducted with Pamela Douglas on September 23rd, 2020. The 43-minute interview was conducted in Durham, NC*. Our conversation explored Dr. Douglas's career trajectory, her work in protocols and standards related to echocardiography and imaging technologies, and how she has contributed to efforts related to diversity and burnout in the field of cardiology. The themes of these interviews include medical standards, heart disease, and diversity and inclusion in medicine.

This document contains the following:

- Short biography of interviewee (pg. 2)
- Timecoded topic log of the interview recordings (pg. 3)
- Transcript of the interview (pg. 4-14)

The materials we are submitting also include the following separate files:

- Audio files of the interview
    - Stereo .WAV file of the original interview audio
    - Mono .MP3 mixdown of the original interview audio for access purposes
- Photograph of the interviewee
- Scan of a signed consent form

*Due to COVID-19 social distancing protocols and best practices, Joseph recorded the interview remotely via Zoom. At the end of the interview recording, we recorded a self-introduction and room tone for use in a production edit of the interview.

BIOGRAPHY

Cardiologist Pamela S. Douglas specializes in diagnostic imaging of the heart. Her research has been instrumental in setting standards for the application and interpretation of echocardiograms. Douglas is the Ursula Geller Professor of Research in Cardiovascular Diseases in the Department of Medicine at Duke University, as well as the Director of the Multimodality Imaging Program at Duke Clinical Research Institute.

Douglas recalls that her path to academic medicine was straightforward: “There was never any sort of right, or left turns. I was from a relatively young age headed towards the sciences, and medicine seemed to be a way to blend both science and some sort of service, or a human side of scientific inquiry.” During her medical training, she gravitated toward Intensive Care medicine and, ultimately, cardiology: “I liked taking care of the sickest patients. I also liked clinical research, as opposed to basic research, and cardiology seemed to possess a better acceptance ... of clinical researchers as a valid academic path at that time.”

Her work as a clinician and researcher has centered on the echocardiogram. Ultrasound imaging of the heart can be a powerful, non-invasive diagnostic resource. However, this tool is only only as good as the way in which it is implemented in the medical setting. To this end, Douglas has been a champion of and major contributor to medical imaging standards and protocol. “Appropriateness of use, and of test selection, as well as as accurate and timely interpretation, and then application of those results into clinical care--I think one of my biggest contributions is putting that sequence together, of how you provide value in imaging,” she said.

Over the course of her career, the echocardiogram has never ceased to capture Douglas’s curiosity. “Even 40 years, later [it’s] a little but of a miracle,” she said, reflecting on the emergence of heart ultrasound imaging. “It's a pretty amazing thing to just be able to put a machine on somebody's chest and watch the heart valves open and close, and the muscle squeeze, and the blood flow, and to be able to see that just as it's happening.”

INTERVIEW TOPIC LOG (pamela-douglas-interview-audio.wav)

00:00 Introductions
01:36 Current areas of responsibility
05:05 Early interest in sciences and medicine
07:09 Early focuses on IC medicine, clinical research, and cardiology
10:27 Work in equity and diversity in cardiology; personal experiences in gender inequality related to job interviews and professional expectations
13:31 Equity issues specific to cardiology subspecialty
16:10 Recollections about the impact of gender on medical trainees in the 1970s
17:46 Trainee years and early experiences with heart ultrasounds
20:40 Description of early echocardiography
21:55 Development of guidelines and standards for medical imaging as president of the American College of Cardiology; description of PROMISE clinical trial
28:09 Importance of each practitioner involved in the process of ordering, performing, and reading an echocardiogram
32:52 Professional collaboration with sonographers in clinical and research settings
34:26 Recent research in professional burnout in cardiology
37:28 Description of multiple roles and cultivation of "variety" in professional trajectory
40:20 Reflections on COVID-19 and impact on clinical and collegial work

TRANSCRIPTION (pamela-douglas-interview-audio.wav)

Joseph O'Connell 00:00
Alright, and I'll give a little introduction here. So, the date is September 23rd, 2020. My name is Joe O'Connell. And I am interviewing Pamela Douglas, MD. And this interview is for the Duke University Medical Center Archives, and the Duke University Department of Medicine. And so I want to mention your position title right at the beginning. So, Dr. Douglas is the Ursula Geller Professor of Research in Cardiovascular Diseases in the Department of Medicine. Okay, so do I have that correct? Dr. Douglas?

Pamela Douglas 00:45
Yes. Yeah. And I turned off my video because you were breaking up a little bit.

JO 00:49
Okay, great. Thanks for doing that. The audio is definitely the important part here. So I want to ask you at the beginning about your position. And I wonder if you could tell me kind of the short version, a lot of these questions will come from sort of an outsider perspective. And that's kind of our goal, is to create an interview that's going to be understandable for a lay person. But how do you describe your job to somebody who's maybe not in academic medicine, just a short version?

PD 01:36
Well, I'm a cardiologist. So I deal with [inaudible] So I don't do surgery [inaudible]. But I do imaging, taking pictures of the heart, diagnosing from that. My [inaudible] caring for patients, including in the intensive care unit, doing research on treating patients and teaching younger physicians.

JO 02:15
Okay, great. And I'm getting a little bit of a break up too. So I'm going to see what happens if I stop my video as well. Okay, I wonder if you could tell me, is there a daily routine involved in your job? What does a typical day look like for you? [crosstalk with tech problems] I was asking you about the routines involved in your current position.

PD 03:54
Oh, yeah. And I did answer that.

JO 03:57
Okay. Would you mind answering again, I think we got disconnected before I heard you.

PD 04:03
Okay, would you rather do this by phone?

JO 04:06
If you don't mind seeing if this is gonna work out. I've got the recording setup, to record Zoom. So if we have trouble again, we can reschedule or I can figure out a way to do it by phone.

PD 04:26
Okay. So my days vary substantially depending upon whether it's a clinical day or research day. If it's a clinical day, leaving the hospital and seeing patients and doing echocardiogram procedures. If it's a research day, it may be meetings, emails, writing, grants, or papers, or mentoring younger researchers.

JO 05:05
And I want to ask you about some of the influences on your development as a physician and a researcher. Were there any experiences that you had in your early life that sort of set you on this path, or that you think about as being important turning points in you deciding that this is what you wanted to do with your life?

PD 05:38
I don't know, there was never any sort of right, or left turns. I was from a relatively young age headed towards the sciences, and medicine seemed to be a way to blend both science and some sort of service, or a human side of scientific inquiry. So I was always headed, I think, towards an academic medical career.

JO 06:11
And did you have any models for what that would look like? Or I guess, I'm wondering sort of how did you get exposed to that idea? What were some of the first times that you started to think that this was a fit with your interests, or what your passions were?

PD 06:34
My dad was a biochemist and toxicologist. And so science was in the household, if you will, was always interesting. There wasn't anybody in the family who was in medicine in any way. But [I was] interested in science, and from there into medicine. Not very complicated, and certainly no eureka moments.

JO 07:02
Yeah. Sounds like it was almost something you took for granted.

PD 07:08
It just was there.

JO 07:09
Well, as you went through your training, how did you think about what kind of researcher or physician you want it to be? In that process were there moments that you remember when you thought, "Wow, I'm really interested in in the heart," I'm curious if there are points when that kind of came into focus for you, that you remember?

PD 07:43
Yeah, in residency, I really enjoyed my intensive [inaudible]. And the intense focus involved in caring for really the sickest patients was very attractive to me. And also the idea that you could potentially turn it around, turn that situation, such as a long-term chronic disease, which would

just stutter along for a long time. So I liked IC medicine, I liked taking care of the sickest patients. I also liked clinical research, as opposed to basic research, and cardiology seemed to possess a better acceptance at least, you know, certainly at the time that I was looking at specialties in the 80s, acceptance of clinical researchers as a valid academic path at that time. Most of the other specialties really wanted basic scientists.

JO 08:48
And so clinical researchers, that would be doing research that actually had to do with the context of treating patients, as opposed to being in a lab.

PD 09:01
Yeah, as opposed to being on a bench, and it usually uses people as research participants.

JO 09:10
I wonder if there any experiences that you had in that setting of caring for the sickest of the sick, any sort of moments where, I don't know, and it may be like any anecdotes or particular patient memories that you have, that kind of illustrate why that was exciting.

PD 09:45
No, sorry [laughs]. It was a good experience, I liked the rotation. There wasn't any particular patient that was an "aha" moment.

JO 09:57
So it really wasn't any one experience. I'm just trying to think through what that was that clicked with you.

PD 10:22
It just feels right, feels good. Like this is interesting, I could do this.

JO 10:27
And I also know that you've done a lot of work around gender equity and diversity in cardiology. And so I'm also interested in the roots of your thinking on those topics and your motivations to sort of raise awareness about those inequities and try to do work that corrects them. Were there aspects of your early experience, either your training or the early part of your career where those interests really came into focus? Where were you sort of noticed, I mean, I'm sure you did notice these inequities going on in your career, and in the careers of other women and minorities around you. But I wonder if you could tell me anything about what some of those early experiences might have been like and what those observations were at that time?

PD 11:37
Yeah, I think it's, again, there was no one "Aha" moment, or no one, like, "I'm getting totally screwed over" kind of moment, but really a thousand cuts, you know, different standards, being held to different standards in terms of how we were evaluated. I remember one evaluation, you know, coming out of fellowship and looking for a job. One of my options was staying at the same institution, and I got put through a whole bunch of hoops in terms of interviews that guys

didn't get put through. And there were comments made like, "Well, she doesn't spend time on things she's not interested in," as a negative, whereas, you know, the flip side of that is she's very focused, and able to manage her time so that she's very effective. And so always kind of the flip side was the implication. And when I came on faculty, I would have people sort of stop by my office and say, "Well, your chair's big," or "Your desk is confrontational because it faces the doorway." And why didn't I turn it to face the wall, like the other women who were all technicians and nurses had had their desks, and not facing the door like I did, because that was too confrontational for a woman to have an office arranged that way. Or asked to share a secretary with three other women, when the men each had their own. So just, you know, it's too numerous to count. But it's kind of at every turn.

JO 13:31
That makes sense. I listened to one interview where you were discussing how cardiology in particular, has been a place where, while other fields in medicine have kind of the numbers of women represented has kind of evened out, that hasn't been the case as much in cardiology, if I'm understanding correctly. And I wonder, were some of those observations specific to either the policies or the culture around cardiology?

PD 14:17
Yes, we've done our research on that with surveys of internal medicine residents, who both men and women, find cardiology to be an environment with unstable work hours, unpredictable work hours, not family friendly, and so on. And that is off-putting for both men and women. But as it turns out, in making men seem to [inaudible] because there are other aspects that attract them, whereas women tend to flee cardiology because there are things that repel them. Now often the same things are repelling men and women, but some men seem to be able to overcome it more in their career choices, and these things are perhaps more important to women. It's really hard to sort of weigh importance of factors. But cardiology is by far the least diverse in terms of proportion of women than any other internal medicine subspecialty. And I mean, considerably. Like half than the next worst, if you will. And in fact, the proportion of women in cardiology training programs is the third worst of any training program in the entire house of medicine. [Inaudible] a smaller proportion of women than anything, except for neurosurgery and orthopedics. And if you take some of the cardiology subspecialties like interventional cardiology, electrophysiology, electrophysiology, we are worse than anybody. So even CT surgery, vascular surgery, general surgery, they have more women in them than cardiology.

JO 16:10
So, as you were thinking about going into cardiology yourself, were those kinds of things on your mind? Were you thinking about the specialty in those terms? Did you have doubts about whether that was going to be a hospitable place for your goals?

PD 16:33
I actually didn't think about it at all, for a number of reasons. For one, you know, I went to medical school in the 70s. There weren't any women anywhere [laughs]. Just going into medical school was foreign. And if I was worried about breaking barriers, I wouldn't go into medicine. Period. Much, much less, you know, whatever specialty I might have chosen. [Inaudible] And I

just didn't worry about that. I mean, I didn't, you know, I didn't focus on the trees, I focused on the spaces between the trees and just did what I wanted.

JO 17:21
So, I think I understand that those aspects that sort of made cardiology especially challenging for women entering the field, those hadn't really come into focus yet, because medicine in general was so skewed towards men.

PD 17:43
Yeah, yeah, exactly.

JO 17:46
Well, I want to ask you a little bit more about the training experience in terms of what you were learning, and how it was preparing you for the work that you've come to do. As you were absorbing skills and knowledge and techniques, were there particular skills that came easily to you, and particular skills that came more difficult?

PD 18:24
I don't really recall struggling with any one thing more or less than another. You know, learning a new field, any new field, is a pretty steep learning curve. And within that field, the various subspecialties of cardiology each have their own learning curve, and then in research. Those are all separate skills. So I don't recall anything in particular, that was a stumbling block.

JO 19:07
Do you recall anything that you were particularly good at? Were there any particular aspects of the training that kind of clicked for you? For example, I know that you've done a lot of work in imaging. Were some of your early imaging experiences, did you know yet that this was something that you had an interest in or talent for?

PD 19:43
I guess so. It's just very cool. You know, ultrasound, you can see the heartbeat in real time without, like, ripping open someone's chest. And that, even still, 40 years later, to me is a little bit of a miracle. That's kind of a strong word. But it's pretty amazing thing to just be able to put a machine on somebody's chest and watch the heart valves open and close, and the muscle squeeze, and the blood flow, and to be able to see that just as it's happening not, you know, in some super machine learning processed image.

JO 20:26
Yeah, absolutely. And so ultrasound. I guess we're talking about echocardiograms? Is that basically the same thing?

PD 20:38
Yeah.

JO 20:40

Okay. Yeah, I was reading as I was preparing for our interview, I was reading a little bit more about that technology, and looking at some examples of images. And yeah, I share your sense that this is a really cool technology, this is really an amazing way to gain insights about the body. And they look really interesting. I'm wondering, what was that technology like when you first were introduced to it, compared to what it's like now?

PD 21:18
It was much simpler, we just had, you know, single and two-dimensional echocardiography. Now we have three and four dimensional. And we have the ability to image from inside the body, either through the blood vessels or through the esophagus, that create much better pictures. And we also have the ability to process the signal in ways to get more information out of it. So it has really improved dramatically since I was training.

JO 21:55
Can you tell me about maybe just an example of the limitations of the echocardiograms at that point? I guess a lot of your work has had to do with the interpretation. I wonder if you could tell me a little bit more about maybe an example of a piece of research that you've done around this, that created a change for how this process is done?

PD 22:47
Yeah, so as you say, I have done some work on the technical sort of engineering side, we did some early 3D work about 25 years ago, with a technology that ended up not moving forward, as well as a couple of other things. But most of it has been in really understanding the value of the images to the patient. And of course, the more technologically advanced it is, the more likely we are to get good information. But that depends critically on whether the right test is being used, for the right patient, at the right time. Which is appropriateness of use, and of test selection, as well as as accurate and timely interpretation, and then application of those results into clinical care. And I think one of my biggest contributions is putting that sequence together, of how you provide value in imaging. We developed and this is one of the things I did as president of American College of Cardiology, a new kind of guideline for clinical practice called appropriate use guidelines, appropriate use criteria, to talk about which tests should be done in which clinical scenarios, and what should not, to make sure patients are getting testing that they need, and not testing that will not help them, and developed that as a whole new set of standards documents. And then authored the ones related to echocardiography. I've also done large clinical trials, like the PROMISE trial, which is a 10,000 patient trial of people presenting with chest pain or suspected coronary artery disease and what the right test to do in them is. Should we do a normal stress test like a treadmill? Or should we do a CT scan angiogram looking at their coronary artery vessels by CT scan? Not only which provides information, but which one actually impacts care. Now at the time we planned that trial, people were saying that they didn't expect an imaging test to improve outcomes. In other words, improve the, essentially the body count, if you will. [Inaudible] A surgical procedure can save lives, but taking pictures, how can taking pictures, save lives? And we were able, through national position papers, teaching through thought pieces, as well as through this trial, to demonstrate that it is possible to think about imaging in terms of hard patient outcomes, like heart attacks and death. And that that is, in fact, an appropriate way to think about imaging. Because imaging can impact how physicians think

about the diagnosis of their patient, which in turn impacts the treatment that they get, and then the treatment can impact outcomes.

JO 26:31
Yeah, that's really interesting. So it sounds like this technology had been around for a long time, but there were kind of some missing pieces in terms of the standardization of how it's used, and the knowledge about how best to use it. Is that fair to say?

PD 26:50
I think that the technology is all very rapidly developing, and it continues to be rapidly improving. So it wasn't sort of something that was sitting up on a shelf. But the standard used to be, and still often is, it's not a bad thing, is "Look, I can get pictures of this part of the body or this part of the heart, or I can see this working. And the pictures, you know, outline the physiology or the pathophysiology really nicely. Somehow this has got to help me in caring for patients." [Inaudible] In other words, does that information help you to care for the patient, or is it just an interesting sort of thing to note? You know, if it's just an interesting thing to note, do we really need to get that, if it really isn't going to impact what we do with the patient. Because it's what we do with the patient that ultimately changes their outcomes.

JO 28:19
Yeah, that makes sense. I want to read back to you a sentence that you wrote about performing echocardiograms that I found really interesting. You wrote, a properly performed echocardiogram really does require a team of individuals, each with their own unique contribution and area of responsibility. And I thought that was really interesting, because it would be easy to think about this technology in terms of either the technology itself, or the skill of the physician who's doing most of the interpreting, but it sounds like your point of view is that it's a cooperative effort. Is that fair to say?

PD 29:16
Yeah, absolutely. And it starts with the ordering physician. If the ordering physician doesn't order the test, it doesn't happen. That's pretty obvious. But if the ordering physician orders the wrong test, or is not asking a question that can be answered by the test. Like if I'm having pain in my foot, and you order an X-ray of my elbow [laughs]. The elbow X-ray could be exceptionally well-executed. But it just hasn't been ordered correctly. So the ordering physician is really important. The logistics of the lab, in terms of getting a patient in in a timely way, can be very important. The sonographers, who is the one who generally actually captures the images. And we have a saying in the lab for the sonographers: "If you don't point at it, we can't see it." Meaning I can be the world's best echocardiographer in interpreting images, but if the sonographer hasn't captured the image with the pathology on it, I can't report it. Because I don't see it. So the sonographer is really critical. Really critical, and they have to be thinking, I mean, there's a, you know, a protocol for acquiring images and best practices and so on, there's sonographer schools, and degrees, actually, in sonography. But yeah, it's really an active thinking process, like I see this, therefore, I point out that, to go beyond the protocol, And then of course, it comes to the physician, echocardiographer, who interprets it, needs to interpret it correctly and interpret it definitively. As opposed to saying "There could be, there might be, I'm not sure, I need more

pictures." [Inaudible] And the care team that receives that report needs to take those findings into account in treating the patient.

JO 31:53
So that's a lot of personnel that's involved in that whole process.

PD 32:01
Yeah, so one of the things I've been a strong champion about in quality and imaging is really this whole chain, a chain of quality, as opposed to just making, you know, precise pictures or just having an accurate interpretation. Really, every piece of it is important to getting value for the patient and positively impacting their care.

JO 32:25
I was struck by what you said about the sonographer. It sounds like obviously, if that's the person who's producing the images, that does seem like a really critical point, and I wonder, have you built up relationships with specific sonographers at Duke over your time there? And what does that kind of interaction look like?

PD 32:52
Oh, gosh, always. Yeah, you know, sonographers are our partners. They're our clinical partners, our research partners. And definitely, our people.. in terms of, you know, in a clinical day, whatever sonographer is assigned to the patient, is the sonographer that you're dealing with on that particular patient. And if you're reading 30, or 40, or 50, cardiograms, you may be reading studies, by 10 or 15 sonographers. And so there's no relationship with a particular sonographer. I mean, if you have a question about an image, you know "This image, I can't quite tell what you're getting at, what did you see, or what did you think, or what's the story on the patient," or whatever particular in that way, sort of transactional. Whereas a sonographer that may be running a core lab essential interpretation for a clinical trial, may be a much more in-depth interaction.

JO 34:09
Okay, so for a study, you might have a specific dedicated sonographer or sonography team, who you're working with in a more consistent, predictable way.

PD 34:24
For a research study, yeah.

JO 34:26
Yeah, that's really interesting. That does sound like an important connection. I want to ask you also about some of the research that you've done that's about the profession itself. We mentioned some of the publishing you've done about gender equity. And then I also noticed that I think fairly recently, you've done some work on burnout. Is that accurate?

PD 35:00
Yes.

JO 35:01
Why did that seem like an important focus for you? And is it something that, how has it come up in your own experience?

PD 35:13
Burnout in particular? Just that, you know, medicine is stressful. People feel stressed. And it is increasingly recognized in the literature. And in practice, there's a number of large health systems that have Chief Wellness Officers for their clinical staff. And traditionally, it used to be that, if you weren't able to take on the world, that was your problem, and related to your resilience, and you needed to go off and figure out how to get yourself straight. But I think increasingly, we're recognizing that the system can be much more responsible than an individual Doc's resilience in terms of creating stressful situations that are chaotic, or that have ridiculous amount of workloads, or are difficult to navigate. And that leadership that doesn't take responsibility for the wellbeing of its staff, is also a big problem. And so those three pillars, the systems, the leadership, and the individual resilience, need to come together to support a positive working environment, we all work better in a positive working environment. I got into that specifically, because we had the opportunity to repeat a professional life survey that we do every 10 years with the American College of Cardiology, and the third one was being done in 2015. And we were using the old survey instruments. So we had questions that were comparable, but we also had the opportunity to add some. And so we added a brief survey on burnout, and were not surprised, but certainly not pleased, to find out that burnout and being stressed is quite common among cardiologists. But no more so than other professions actually, other specialties.

JO 37:28
In another interview you did, you were speaking with the interviewer about advice that you might give to another physician, I think your words for to stop and smell the flowers or smell the roses. And that sounds like it's part of this whole picture of wellness. Were there any times in your career where you took where you took time to sort of focus on another interest? Or where you actually did that and came back to medicine with a different point of view?

PD 38:14
Not in the sense of a sabbatical, or anything like that. I did take some time off between jobs to travel, which I always, you know, love, and it's hard to get away for more than a week or two normally. But it was never, like, "Hmm, I think I'm going to go into, I don't know, banking." [Laughs]. You know, "Let me go get an MBA."

JO 38:45
Right, right. Yeah, it does sound like you've been very focused in your path. Were there ever times when you when you did think about a different path, even within medicine?

PD 39:03
No, not really. I mean, you know, there's days when you have [inaudible], and your job doesn't feel good, or weeks, or months [laughs]. But I've had a variety of different kinds of jobs within academic medicine, from being, you know, just a clinician and a researcher and being

responsible for my own portfolio, to running a large division like Duke, to running a large international organization like the American Society of Echocardiography, the American College of Cardiology, so those have provided a lot of variety within the general bucket of academic cardiology, so to speak.

JO 39:56
Before we wrap up, I do want to ask you how the COVID-19 pandemic is affecting the way you do your job.

PD 40:20
Well, Zoom, I guess [laugh], is probably the biggest thing. Instead of seeing people face to face, it's Zoom, and I've done less clinical work being a little bit older and high risk. But, you know, I think that the biggest effect is not so much on my job, but on the interactions, the daily interactions with people that you see in the building, you know, between your office and the kitchen, or the bathroom, or the hallway. And I think that's the biggest difference is those informal interactions.

JO 40:59
So those are missing right now.

PD 41:04
Yeah.

JO 41:06
Yeah. I wonder if you could say any more about what you would ordinarily get out of those interactions and what, you know, what it's like to not have them?

PD 41:16
Well, I mean, those interactions really add up to having a community of some sort. And it's a being part of that community and having - and very informal and not particularly profound interactions, I mean, just superficial interactions - but it's feeling like part of a group or a team or, you know, maybe it's venting, maybe it's hearing something that's good in somebody else's life and celebrating with them. It's just being part of the group.

JO 41:56
And that probably doesn't take place in the same way over Zoom.

PD 42:04
Correct.

JO 42:06
Yeah. Well, is there anything that you would like to add to the interview portion of this conversation that we haven't touched on?

PD 42:17

No, it's whatever you want.

JO 42:20
Okay, great. Well, thank you again, for doing this. I'm gonna end the interview there.