

**NINR History Project
Telephone Interview with Dr. Margaret Grey
Conducted on August 14, 2009, by Philip Cantelon**

PC: I'm speaking with Margaret Grey, G-R-E-Y, on August 14th, 2009. I have your permission to record the call?

MG: Yes.

PC: Thank you, and also to use pertinent things in the book?

MG: Yes.

PC: Thank you. What I wanted to start with is really talking about over the years the impact that you see that the NINR has had on nursing research. Let me start there.

MG: I think in its twenty-five-year history, it's certainly been a focus for research and has allowed I would say more nurse scientists into the NIH system. And I think that they've done a great job in terms of setting agendas and then making that agenda go forward.

PC: Have you noticed a change—you've been in nursing, both as a researcher yourself and a nurse educator?

MG: Yes.

PC: Have you noticed changes, let me go first in the kind of research projects, for example, you've been doing in pediatric diabetes or before that?

MG: I think the biggest difference is the complexity has changed so much. I think there's two real advances. The first is the complexity that even back when I first started doing science and started reviewing, which I've been doing for twenty years, studies were relatively . . . simple is too pejorative a term. Our science was so at a point where we weren't doing studies that really tested complex models or involved many interdisciplinary teams and things like that. So I would say the complexity is the primary thing that's changed in that we're now seeing many more larger, multisite clinical trials that allow us to really test models instead of the simple question of if you do this intervention, then you'll get this outcome. And our studies, for example, we have done a number of intervention studies, but they were fairly simple, let's test the effect of this intervention. What we're doing now is over the course of time, we've developed a model that underlines our work. In our current study, which is a multisite clinical trial, we're going to actually be able to test whether the mediators and moderators work the way we had [inaudible] they'd work.

PC: Could you explain this a bit more for me exactly what you're doing?

MG: My current study is we've been working with an intervention for children with diabetes that's called Coping Skills Training. It was originally designed as a group-based model, and of course teenagers in particular, which is the main focus of our work, are really busy these days, and trying to get them into some sort of meeting became increasingly more difficult. So we've taken this and we've moved this into the use of technology. It's a web-based intervention. The whole study is done online, with the exception of recruitment, and we're going to be studying over three hundred kids so that we can actually look to see not just do we have the impacts on quality of life and metabolic control of diabetes that we've gotten in all of our other studies, but does the intervention actually reduce stress and is that reduction in stress associated with those improved outcomes. It's more complicated than that, but that's sort of a basic.

PC: This is I think you had on your webpage a thing on the physiologic and psychological outcomes, and that's what this does basically.

MG: Right.

PC: You have been in this business did you say for twenty years, or longer? I know that's an embarrassing question to ask.

MG: Let's see. I got my first federal grant in 1988, and that was not a training grant. That was a research grant.

PC: At that point it was still NCNR, but Ada Sue Hinshaw who had also worked with large groups, was she interested in pushing that, do you recall, this part out of the National Nursing Research Agenda, your own research interests?

MG: I don't really recall that.

PC: Okay. Tell me about your work on the Nursing Science Review Committee.

MG: Nursing Science Review Committee is the review committee that reviews training applications, so their institutional training ground for [inaudible] and then individual fellowship awards from predoctoral through postdoctoral. I was on that committee for six years, and first as an ad hoc member. I took the place of someone else who was ill, and then I came on as a permanent member, and then for two years I was chair. And that's a fairly long time even with people who aren't committed to review committees or study sections about length of time, that that was in an era where there was a real burgeoning of Ph.D. programs in nursing. So we were getting a lot of applications, but a lot of them were very weak in terms of clearly the research preparation as well as faculty mentor match and the like. But over the course of six years, we began to see increasing sophistication not only from the students, but from the faculty as well. So by the time I left that committee, the field had really changed a great deal, and certainly the level of

sophistication of the applications increased. From what I see today from our students who are getting funded, it's escalated again.

PC: What has happened is what I'd hoped has not happened and that is the—I'm in Maine and they're doing some chipping along the road, and I asked that they not come after 10:30, and of course they just pulled up in front.

MG: Oh, it never fails.

PC: That's what happens when we try to take care of things. How do you explain that growing sophistication?

MG: Well, science begets science, and in good sciences, that's the hard question. As our science got more sophisticated, as *we* got more sophisticated, when I finished my doctoral program in 1985, we thought it was really good science to do good survey research. One of the things I think NINR did, and it was important for them to do, was to not over-push moving toward randomized trials and intervention studies. They made it clear that the goal was always to be able to do research that would change nursing practice. Ultimately, descriptive work is important because it sets the stage for that, but our discipline is an applied discipline. So the need to move from what may be basic descriptive work, whether that be in the basic sciences like somebody like Margaret Heitkemper or in the social sciences like me, had to all be in service of eventually getting

to what can we do to fix this situation or help this situation. One of the things you learn early on when you do these clinical trials is nothing ever happens the way you think it's going to happen, and you really have to measure much more than the outcomes you think you're going to get to really understand what's going on and then figure out who are the right people to get this intervention, how is it going to be most effective, etc.

PC: And those delivery systems have changed as well, I assume.

MG: Absolutely. I think that's more emerging than I would say has really gotten there yet. Obviously we're doing this Internet-based intervention, but

PC: But not yet on Twitter?

MG: Well, we have a challenge grant pending that looks like it might get funding which is to incorporate social networking on what we're doing. But most of what's been done online, I would say that . . . particularly web-based stuff has been simple patient education online. We know that the science of behavior changes such that knowledge is a good thing, but it's not enough, and what we're trying to do in ours is actually do behavioral intervention online, and that's the next wave of what this needs to look like.

PC: Okay. Let me just go back a bit. Has the curriculum changed as well in nursing programs and training programs over these twenty years or so?

MG: For sure.

PC: In what directions?

MG: I think at all levels. I'm not sure whether you're asking specifically about Ph.D. level education which is where most of this stuff happens. But even at the undergraduate level . . . I graduated from my undergraduate program in 1970. We didn't even have a *course* in research. We weren't taught to read research. It wasn't part of what we learned. Now that's in every undergraduate program in nursing.

PC: And you were where?

MG: I was at the University of Pittsburgh.

PC: Okay. Now every program has it.

MG: Every program. And at the master's level, we teach principles of evidence-based practice and how to generate evidence for practice. And then at the Ph.D. level, our methods courses are much more sophisticated, our statistics courses are much more sophisticated because, you know, back in the old days, if you learned key tasks and chi squares and simple analysis events, you could handle almost anything. But now, with these

sophisticated, complicated models that we're looking at, you need much more higher level, multi-varied analysis skills, not that the Ph.D. is actually going to sit down and run those analyses, but you need to be able to have conversations with a statistician who is going to run those analyses.

PC: So the pressure to get more interdisciplinary is growing as well.

MG: Well, it's pressure, but it's also . . . it's what the state of the science is. It just doesn't make any sense to spend a lot of money studying something in a very simplistic way, when in the end you're not going to learn that much by doing that.

PC: Are the graduate students that come into Yale now, how much better prepared are they than you were? I know I look at things and I think, jeez, I'm not sure I could ever go back to school anymore.

MG: It's just a whole different world. The basic preparation in the sciences is different, the work that students are expected to do conceptually, those kinds of things are just night and day from what they were when I was in school.

PC: One of the things that Ada Sue told me was the problem was that by the time most of the people, her cohorts, got through school, they were all much older. And one of the things

she was interested in was pushing students to go through from the bachelor's to Ph.D. Is that happening more often now?

MG: More often but not enough. It's still true that the mean age of people getting Ph.D.s in nursing is in the mid-forties.

PC: Still, huh?

MG: Still. It's come down, but it's still a [inaudible]. I'm currently serving on the National Academy's committee that reviews pre- and postdoctoral training at the NIH, so we've just seen the most recent data, and those data are not pretty for nursing. And that's despite what I would call somewhat of a push to get people into graduate training earlier. I think it's going to take more than what's been done so far to make that happen. What it's really going to take is the game-changing view of the world by the older nurse faculty.

PC: How do you mean?

MG: Here's an example. I do this research in pediatric diabetes, and a couple months ago I got an e-mail from somebody who's in an undergraduate program in not a top-tier school of nursing, but I would say second tier, had read my work. It happens she had diabetes herself. She was very excited about what I was doing and wanted to talk to me about it.

She said, “I want to learn to do research like this. What you do is so important, and it speaks to people who have diabetes,” etc., and when I talked to her on the phone, she’d been told by her faculty that she should not even consider going directly on because she didn’t have any clinical experience. And then there’s this sort of silly idea that if you want to practice in pediatrics, which she did because she wanted to take care of kids, that you have to go work for a whole year in what’s called medical surgical nursing or sort of traditional adult care, and then you can go into pediatrics, and then maybe you can consider going on for your master’s degree. And then when you get your master’s degree, then maybe you should work a couple of years before you go on for a Ph.D. I started graduate study three years out of my undergraduate program, and everybody told me not to do it. I was too young, I didn’t know enough about nursing. And kids are still getting that message today, which is awful. And it’s our fault. I mean it’s the faculty’s fault.

PC: In my experience, faculty are some of the slowest people to change in my own field which is supposed to be studying change.

MG: [Laughs] I’ve been known to say—it doesn’t make me popular in my dean position—that one of the hardest parts about my job is getting people to understand that we’re educating 21st century students using 18th century pedagogy. And no wonder they don’t come to class.

PC: [Laughs] Making John Dewey look fascinating.

MG: Exactly.

PC: Where do your graduates go?

MG: Almost all directly out of the program, the Ph.D. graduates go into postdoctoral training positions, and then the great majority of them take academic positions.

PC: And do their research there.

MG: Yes.

PC: Is this new generation changing attitudes?

MG: I hope so.

PC: Any evidence of it?

MG: I think so. I think you see a real emphasis in a lot of the top-tier schools in bringing in people from . . . and making it reasonable for people to finish a Ph.D. in a reasonable length of time without requiring them to go out into practice for two years before they

move to the next phase and then the next phase. If you look around at the top-tier schools and their Ph.D. programs, almost everybody now has a streamlined way for people to do that.

PC: Have more men been entering this field as nursing research has become more scientifically oriented?

MG: Well, the number of men in nursing has stayed somewhere around ten to fifteen percent. I think the difference has been that men were much more likely to go on more quickly than women were, and so the professoriate in nursing has a higher representation of men than is reflected in the total pool of nursing. What is really interesting that's happening now in terms of the total pool of nursing is that a lot of military people are coming back and coming into nursing. And so that's upping the numbers at least at the entry level.

PC: Having practiced in the military, they are now coming back to school to become nurse researchers or nurse scientists?

MG: Many of them were like corpsmen and they decided that was a pretty cool thing to do and came back to the States or got out of the service and said this is a way for me to do this.

PC: If we said there are these certain changes over the past twenty-five years, what would you say are the trends for the next twenty-five?

MG: In science or in nursing or . . . ?

PC: Nursing science.

MG: Okay. I think interdisciplinarity is the name of the game. I think that the problems we're dealing with as a society now are way too complicated to even think about trying to solve those problems in a single disciplinary way. Some of my work, for example, focuses on childhood obesity, and there's a metabolic component to that, there's a social component to that, there's the exercise physiology component to that, and the idea that any one profession holds the key to solving that kind of a problem is . . . I think that's **sanity**. And so I think we're going to see much more in the way of real transdisciplinary research training, real transdisciplinary research teams, and many more opportunities to be a part of that kind of science and to lead those teams, not just to sort of be a part of the team.

PC: In other words, that nursing's going to get a bigger place at the medical table—

MG: Well, one would hope.

PC: —or vice versa?

MG: I've been around too long to, you know. I think the issue is that now that we're doing the kind of science we're doing, I think people are starting to see that nurse scientists bring more to an interdisciplinary research table than being trial coordinators, which is how—when I first started in this field, even though I was in a very interdisciplinary field which was diabetes, people saw you as a part of a clinical team, not as an equal member of the research team, and clearly that's changed, that we're really viewed as part of a broader team trying to solve complicated problems.

PC: You did an article in 2002 on “The Systematic Development of Nursing Interventions”?

MG: Yes, with my colleague Robin Whittemore.

PC: Yes. Explain that and how that . . . that caught my eye and I said ah, okay, now there's a trend or some kind of pushing toward the future.

MG: Again, it was really—it evolved from our work. Robin was a postdoctoral fellow of mine. We kept her on the faculty at Yale, and we still continue to collaborate. But that work evolved from our conversations about kind of where do interventions come from, and could we use the pharmacology model of drug testing and translate that into how behavioral interventions are developed and tested, because again, both of us had our own experience in intervention development, and we were seeing a lot of studies that were not systematically developed. Somebody had an idea, they put together an intervention, and

then they wanted tons of money to test that intervention, and sometimes it felt as if it was a—well this sounds like a good idea, let's try this, without the preliminaries that would give more likelihood that this approach would work. My understanding is that's one of the most widely read papers ever published in that journal. And it was just a thought piece of can we apply this model and what would that model look like. I mean I see it in grant reviews I'm doing now on the children and family studies section. People say we used this model to develop our intervention.

PC: In raising the grant review committees, are they made up now of these younger researchers as well?

MG: Well, [inaudible] unfortunately it's always been the case because there haven't been senior scientists who have had sustained programs of research until more recently. That's why everybody thinks I'm a superstar because I'm one of the few people who have had sustained funding for so long. Now there's a mixture. There's some junior people and then there's senior people who really know how you put all those pieces together to develop a program of research.

PC: Are people open to new ideas, even some that are a little off-base in these reviews?

MG: Yes, I think so.

PC: I did a study years ago on polio research in the thirties, and it was the classic case of we fund all the old traditional schools, all of whom by the way were working on the wrong idea, rather than go with the sort of . . . I won't say the odd duck, but the nontraditional approach. And of course it's always been a problem in science as well in terms of funding.

MG: And I actually think the new review system's going to help that even more because they're less concerned now about the details about exactly how you're going to do what you're going to do, and much more concerned about if this works, what kind of impact is this going to have, and I think that's a really good thing.

PC: Who led this change?

MG: That's all the NIH review

PC: That's the NIH review thing.

MG: Yes.

PC: Does that come out of the grants or out of the NIH policy?

MG: It comes out of NIH policy.

PC: And that then translates down to NINR?

MG: Right . . . and everybody has to do it. [Laughs]

PC: Well if they want the money.

MG: Yes, exactly.

PC: Standing somewhat from a distance here looking at the NINR and NIH, how would you say the NINR has changed anything in NIH in terms of the biomedical research community's view of nursing?

MG: Well, in the first place, having nursing at NIH elevated nursing by itself. In the second place, I think the other really important thing is that there were a couple key issues where the nursing institute has taken a lead, and those continue to be end-of-life care and enhancing the ability of individuals to manage chronic conditions. Nobody else was really focusing on those areas, and they're very important areas. I think the fact that the nursing institute and the people who were doing research in those areas were seen by the NIH as leaders in the field weighs the stature of nursing science.

PC: And also I think they claim now also in pain management.

MG: Yes. Exactly. Well, it's symptom management. I had understood this was a half-hour call.

PC: Right, and it has been.

MG: I'm happy to answer more questions, but we'll have to schedule another time.

PC: If there's something I haven't covered, do you want me to get back to you, I will. I'm fairly comfortable with what we did talk about. In fact, that was my last issue.

MG: Okay. I just wanted to warn you before you got into the next question.

PC: No no no. But I do want to thank you.

MG: If you need to get back to me after you start putting this together, feel free. I feel very fortunate to have come up as a scientist at a time where nursing came into the NIH. Not all of my funding has been from NINR, but I've had money from NIDDK and other places, but . . . as I said, I think they created an environment that allowed us, and I mean us as junior scientists as I was at that time, to believe that we could get money from NIH. It's really transformed our science. So that's my final word.

PC: Those are words to live by.

MG: Well, good luck with your book. I look forward to seeing it.

PC: Thank you very much. I appreciate your help.

MG: I'm happy to do it.

PC: All right. Thank you. Goodbye.

MG: Goodbye.

[End of interview]