Jill Harrison (00:02):

Hi, this is Jill Harrison, Executive Director of the National Institute on Aging Impact Collaboratory at Brown University. Welcome to the Impact Collaboratory Grand Rounds Podcast. We're here to give you some extra time with our speakers and ask them the interesting questions that you want to hear most. If you haven't already, we hope you'll watch the full Grand Rounds webinar recording to learn more. All of the companion Grand Rounds content can be found at impactcollaboratory.org. Thanks for joining.

Welcome everyone. Dr. Eric Larson, Dr. Joe Goggler, thank you both so much for joining me today. I'd like to give you just a moment to introduce yourself to our listeners. So Eric, could you please go first?

Dr. Eric Larson (00:43):

Yeah, my name's Eric Larson. I'm a general internist in Seattle. I've been at the University of Washington for a big chunk of my career, and now I'm at Kaiser Washington Health Research Institute. I've been very involved in dementia research since starting a clinic back in the late '70s, and pretty much devoted my career to ways to prevent dementia or discovering ways to prevent dementia or delay the onset and make life better for people that experience the illness. And I'm participating in this podcast as a member of the Lancet Commission that wrote major reports on dementia in 2017 and 2020.

Jill Harrison (01:27):

Wonderful, thank you so much. And I'd also like to mention that you're the leader for the Healthcare Systems Core within the impact collaboratory.

Dr. Eric Larson (01:36):

Correct.

Jill Harrison (01:38):

You wear so many hats, and we are grateful for it. Joe, could you please tell our listeners a little more about yourself?

Dr. Joe Goggler (01:45):

Sure. My name is Joe Goggler. I am a professor in the school of public health here at the University of Minnesota. I hold what's called the Robert L. Cain endowed chair in longterm care and aging. I direct our center for healthy aging and innovation as well. My research interests focus broadly speaking on Alzheimer's disease and longterm care, but more specifically in the design, evaluation and then eventually dissemination and implementation of dementia care innovations. Like Dr. Larson, I've really focused the bulk of my career in this space. And as part of this particular podcast, I'm coming to it first as the associate lead of the implementation core of the NIA Impact Collaboratory. And then also as the co-lead and co-author of the recent report on the efficacy and effectiveness of dementia care interventions that was published by the Agency for Healthcare Research and Quality.

Jill Harrison (02:45):

Wonderful, thank you both so much again for being here today. So as you both mentioned, the NIA Impact Collaboratory hosts these monthly grand rounds series. Each have a companion podcast. And earlier this week, you teamed up for special grand rounds on the recent AHRQ and Lancet reports on dementia interventions and their implications for pragmatic trials. And you also had commentary from

an NIA representative, Dr. Liz Nielsen. So today we're going to use our podcast to get to some of the questions that we were unable to answer during the webinar.

And I'm just going to jump right in with a more general question about the state of the field. So the rate at which people develop Alzheimer's disease significantly outpaces the evidence. That was clear in both your presentations yesterday. But at the same time, the demand for therapeutic benefits from non-drug interventions has never been greater. What advice would you give to researchers in healthcare systems who want to work together to close the science to service gap between dementia research and dementia care using embedded pragmatic trials? And Eric, we'll start with you please.

Dr. Eric Larson (04:03):

Yeah, that's a very good question and an important one. I think the key is to, if you want to do an embedded trial, pragmatic clinical trial, the key is to have some kind of a partnership between people who may be expert in research and care and the disease itself, and the persons who might be responsible for providing that care. And of course, I think the people who live in the world, persons living with dementia and their caregivers, and begin to identify opportunities where you can see improvement is needed. And there are many, ranging from improving the general idea of improving wellbeing to dealing with challenges that persons who no longer can necessarily reason accurately for themselves are able to deal with. So the idea of coming to the delivery system with an idea is a great one.

The idea of going to the delivery system for an idea is a great one. We like to use the phrase in learning health system of, research informs practice and practice informs research. And what that means is, from practice, you learn about the challenges as well as the feasibility of addressing them. And from research, you learn, you bring the knowledge from research to the practice. But it's clearly starting with a partnership. And beyond that, identifying within that partnership, an idea that fits with the priorities of those people who are delivering the care or receiving the care. I think academics need to listen in some ways more than they pontificate in forming up these partnerships.

Jill Harrison (06:02):

So yesterday you mentioned the slow accumulation of evidence in dementia research, contrasted by the prevalence of dementia and the urgency to improve wellbeing for people living with dementia and their care partners. Given the findings of the recent AHRQ report, that only a few non-drug interventions have low strength evidence suggesting that they offer consistent benefit, they're ready for broad dissemination. What does this mean to researchers interested in designing and conducting embedded pragmatic trials of non-drug interventions? And second part of that question, of those available interventions that were found to have low strength evidence, so collaborative care models and reach to, how relevant do you think those interventions are for healthcare systems in solving problems of dementia care?

Dr. Joe Goggler (06:59):

Yeah, again, that's an excellent question. And it's really I would argue a two-part answer. In alluding to the first issue, the fact that the AHRQ review in particular concluded that there wasn't a lot of support, at least at this time for various types of interventions, dementia care interventions, to really proceed to pragmatic trial testing. And then along with that, dissemination or implementation. I think it'd be good to start with that. What that tells me ... What the review I think reveals are a couple of things. One is, if you recall, the goal of the AHRQ review was to really focus its scope on interventions or studies that were considered effectiveness trials or further along on the NIH stage model. So it precluded many

studies that might show a fair degree of promise. For example, stage one study, stage two studies. But those were excluded because of essentially where they're at in terms of intervention development.

So at one level, there is still I would argue a body of evidence that is worthy of continual testing and refinement to progress along the NIH stage model. And with that, there's a need. And I think this addresses in part the second part of the question of, again, this whole notion of, one, we're at the point of actually designing interventions, dementia care interventions. Like Dr. Larson said, it's so critical to have strong partnerships with healthcare systems, other contacts where these interventions will eventually be deployed is along with that is understanding what are the components, what are the aspects of the intervention that are number one essential in terms of mechanisms of benefit, theoretical elements that are core to the intervention? And what are elements of the intervention that will require either adaptation and refinement in partnership with a healthcare system partner or other partner to ensure that the intervention is feasible, acceptable and appropriate for that given context?

I think in the past, the way the dementia care science field has evolved was in a more linear fashion where say in some cases complex interventions were tested within a traditional randomized control trial, efficacy trial. But then when attempts were made to actually translate those interventions into day-to-day routine clinical care context, there were many problems and issues that arose in part because the intervention wasn't designed at the outset for eventual either pragmatic trial testing, efficacy, or effectiveness testing, and then eventually dissemination and implementation as well. So, I think in a nutshell that's what the AHRQ report I think in the end really has emphasized not only for me as a coauthor, but hopefully for others who are in this space.

Jill Harrison (10:06):

Thank you so much. One of the questions and struggles of some of our audience members, they pointed out that the field itself is not speaking with one voice in regards to how we advance this field of dementia care using pragmatic research. And one of our listeners wanted to pose the question to the both of you. What have you seen in regards to study sections that are prized of the nuances of implementation science, pragmatic trials versus the kind of old school models that were typically associated with study sections? And have you seen a willingness in those study sections and in the larger community to apply implementation research principles and methods, the grappling of uncertainty and compromise that's associated with conducting these real-world trials? And Eric, can I please start with you?

Dr. Eric Larson (11:00):

Yeah, I'd be happy to respond to that. It's an important question. And I think what we're dealing with here in terms of context is a field that's evolving. As you said, Joe, the idea of implementation has almost been an afterthought for traditional research supported by the National Institute of Health anyway, maybe less so for AHRQ, but it's analogous to [inaudible 00:11:33], when [inaudible 00:11:31] started doing patient-centered outcomes research, it was a whole new world. And it took time for that area to evolve into a common understanding of what constitutes a good study or a study that deserves funding. And my thinking on this is that we're moving in that direction, and that we should constantly be looking at how the review process works. For example, the impact collaborative could be one of the elements in that. And I also think the National Institute of Aging needs to be involved so we begin to see how this works.

It's not going to happen overnight, I think is the bottom line. But eventually there'll be a cadre of reviewers and a cadre of people designing programs and writing proposals that will come to see the commonality. And to me, the trade-off is going to be what I would call rigor versus relevance.

Traditionally, NIH reviews have been fabulous in terms of adhering to criteria of rigor and guaranteeing that whatever study you do is going to come out with an answer that will be reproducible or more likely to be reproducible. Whether it's relevant or not was almost a second order consideration. Now we're going to have to combine the two of, how do you have a program, a proposal, a study that's going to be relevant to improving care? And at the same time be producing what I would call generalizable knowledge? And I think we're getting there. We started with, with the Duke Collaboratory that the common fund established. And the field is moving, and I think aging and dementia will be there in short order.

Dr. Joe Goggler (13:38):

I can't agree more with Eric's comments. And in terms of openness on study sections to these types of designs, whether it's pragmatic trials or even dissemination and implementation, I personally haven't seen barriers or an unwillingness to consider these types of designs. To me, it's similar to mixed methods. It being seen as an accepted methodology. And there might've been pushback when it was first introduced, but since then, at least on all the study sections I've been on, not only at NIH, but other institutes, it's seen as an acceptable approach. And in part, this idea that Eric brings up, which is a really good one, really balancing the need to ascertain efficacy or to a lesser extent effectiveness in an overall body of literature with whether it's relevant, whether it's externally valid, whether it has ecological validity is a really important one.

And I'm not sure our systematic review methodologies have been able to address that as effectively sometimes as I think they could. So, if one is adhering to the traditional methodology of focus on randomized control trials, meta-analyze those randomized control trials and come up with a conclusion, for example, the Cochrane reviews. That's certainly helpful and very useful information. Can give us some idea in sense of again, mechanisms of benefit. But does that really address the issue of external validity, which in some ways is as important, perhaps even more important when we start moving into the areas of the NIH stage model that are focused more on effectiveness as well as implementation.

Jill Harrison (15:24):

So that really aligns well with another question we have from our listeners in terms of, have you seen any alternative criteria perhaps matched to dementia stage to evaluate and apply to dementia care research with regards to those trade-offs that you mentioned between validity and relevance and staging and so on?

Dr. Joe Goggler (15:47):

What I've seen is I haven't seen any established criteria. And maybe Eric, you can comment more on this than I. With the exception of reviews, such as the Lancet Report that have expressed and have incorporated a willingness to include multiple types of research in their overall reviews. One of the things, and I've recommended this paper to various people when this has come up is, a paper that came out in the Annual Review of Public Health in 2009, by Green and Colleagues. It was on diffusion theory and knowledge dissemination. And there was a really compelling section in there in that paper that talked about this whole mismatch between how evidence reviews that adhere to the classic RCT and exclude everything else, how that actually doesn't necessarily facilitate eventual implementation and dissemination either of practice guidelines or other types of research.

And one of the really interesting aspects of the Green paper that is discussed is, in fact, when one actually looks at rigorous observational research, in many cases, the findings of those studies aren't

necessarily at odds with randomized control trials. Suggesting again, that this type of work is important to consider in an overall assessment of a given area, including dementia care interventions. My hope is, with reports like the Lancet Report, and then perhaps as we continue to think about what interventions are ready to proceed to the embedded pragmatic trial stage and beyond that, we can start incorporating these various types of evidence. Because I'm pretty certain from the standpoint of healthcare systems, other care providers who would partner with us, that information is important and shouldn't be ignored.

Jill Harrison (17:33):

Eric, any comments from you on that question?

Dr. Eric Larson (17:36):

I agree with Joe's point here. The field is moving, but it's moving I think hesitatingly. It took so long for us to believe in evidence-based practice as the cornerstone, but we're well beyond that now. And it's almost like a correction where we need to use more information. And the Lancet report used the idea of triangulation, where you look at multiple areas and come to something like these programs are ready for further testing or further evaluation. Or in fact, let's move them into the field. The example I like is the chronic care model, where a group of people here in Seattle began to look for ways to approach the care of persons with multiple chronic conditions. And over time, and with the aid of the Johnson Foundation for example, that there was a 10-year period where the Johnson Foundation simply funded people to disseminate the chronic care model. And it's now endorsed worldwide, but these things take time. And we have yet to do this as well as we need to in the field of dementia research and dementia care.

Jill Harrison (18:59):

Eric, you mentioned that you were a coauthor on the Lancet paper. And one of the great resources in the Lancet paper was that it described some of the individual level factors that folks can control within their everyday lives to help mitigate dementia. Could you describe what those are?

Dr. Eric Larson (19:19):

Yeah, it's a very important thing. And I think that part of the key to answer a question like this is to admit that I can't possibly cover the whole waterfront here. But I do think some of the things that I found most promising, and this is in some way, based on my experience in the field is this idea that we should be promoting pleasant events for persons living with dementia that would improve their state of apathy, which is so common and isolation. It seems like a simple thing to do, but I don't think we say it enough. The second element is caregiver training. It's so much good evidence that training caregivers in techniques of deescalation, avoiding the tendency to confront and correct a person living with dementia when they make a misstatement, and especially listening skills. Try to get the essence of the story that a person is telling, even though they may have altered cognition.

A third element that I think is really important, and we don't have good research yet to do this, but is that people with dementia do not do well in emergency rooms and hospitals. And everything we can do to deliver the care for them in place, wherever that place is. Whether it's a home or an adult family home or a nursing home is probably better than an unnecessary trip to the hospital. And then realize that people living with dementia are old primarily, and they almost always have other chronic conditions.

And they're also almost always at risk for some kind of event to worsen their state, whether that's an infection or a fall or a loss of a loved one, or a COVID epidemic for example. And we need to promote some sort of regular surveillance, realizing that persons living with dementia may not report symptoms. In fact, they don't. And so a condition like a urinary tract infection can go unrecognized and eventually lead to sepsis and delirium and hospitalization. So those are at least four areas where I think we can focus on improving care based on some of the ideas of the Lancet commission.

Jill Harrison (21:51):

Wonderful. I have two more questions for you. The first one really picks up on your comment, Eric, about delirium. What interventions have you seen that address delirium and people living with dementia that hold the most promise?

Dr. Eric Larson (22:06):

Well, that's a good one as well. And I would point to the work of [inaudible 00:22:13] at the Hebrew Senior Life Center. She has devoted her career to showing ways to improve and prevent dementia. And we do know how to do that, especially in hospitals. And that involves things like regular review of medications, and avoiding medications that will promote delirium, efforts to minimize the changes in a person's environment, the interruptions in a person environment that may be confusing, like measuring vital signs at times when a person should be sleeping and they don't really need to be measured. Then careful adherence to hygiene and general medical condition monitoring if you will. Basic ideas to avoid the stress of a change in a person's environment that can somehow make them confusing. And then of course, the regular use of orientation techniques. Making sure that people know what day it is, what time it is, where they are and so forth. Very basic things that people can often forget in the daily humdrum of providing care.

Jill Harrison (23:22):

Final question for you both. Just take off your researcher hats for a moment, put on a dreamer hat. In five years from now, what does the field look like? How do we reach the goal of improving wellbeing for people living with dementia and their caregivers?

Dr. Joe Goggler (23:41):

I guess I'll start with that one. I think in the end, what I think would be most helpful in five years or maybe beyond that is to utilize the base of evidence that we're able to generate through all of this incredible investment from the National Institute on Aging, to result in dementia care innovations that are ready and are able to be effectively disseminated and implemented to healthcare providers, community-based care context, and then potentially people living with dementia and their family care partners or caregivers themselves.

And when I say ready for dissemination and implementation, I'm thinking of tools like the best practice caregiving tool that the National Alliance of Caregiving created in collaboration with several NIH impact members, where we're not simply relying on traditional modes of dissemination to suggest what works or not and where it works, but to package it in a way that is easily usable by healthcare systems, by providers. And then of course, by other key stakeholders, such as people living with dementia and their caregivers themselves. I think by moving in that direction and thinking of it in that way, we can shorten this translational pipeline, which as we know is leaky and takes too long as it is.

Dr. Eric Larson (25:08):

Yeah, that's a good ... It is a good question. And as a dreamer-type person, I hope we start from realizing that we have made progress. And some of the things we used to do at the early part of my career that we don't do gives me optimism that we will be better off in five years. And to me, some of the key elements of how we could be better off or a vision for what better off might be is, we recognize the person-ness of people living with dementia. And the field is much more aware of the importance of what a deficit in cognition implies for a person's life. And like Joe was saying, and we design programs that aim to improve wellbeing and the innate capacity that people have in the various stages of dementia. And one of the ways we get there is going to be in partnership with the caregivers and families and others that care deeply about their loved one.

And it sounds a little bit corny, but if we listen and design programs and test them through groups like the impact collaboratory, we will eventually get to these programs that Joe described, that will be implementable and will be used because they work. People will adopt programs that work. And when we discover them, that will be great. And part of the thing that I think is really important at this day and age is that, as Liz said in her presentation, we need to attract a whole new crowd of people who care about science and care about wellbeing of persons living with dementia to the field. And I think as the impact program goes, we'll probably have that whole new cadre. I've been in the field for enough decades to know that everything needs to be rejuvenated. And I think getting more young people engaged and also getting the public engaged as partners will be part of what I see as a dream for how things will be different in five years.

Jill Harrison (27:34):

Well, it's certainly a dream worth pursuing, and I'm confident with the guidance of senior scientists like yourselves, that the dream and realization will come true. So thank you both so much, Joe Goggle or Eric Larson for joining me today. We have this podcast and grand rounds available on our website, as well as a new knowledge repository that I would encourage folks to check out. And we'd also invite our listeners to follow us on Twitter and LinkedIn. So thank you again so much for your time today. It was really a pleasure speaking with both of you.

Dr. Joe Goggler (28:09):

Thanks so much.

Dr. Eric Larson (28:10):

You're very welcome. It was a pleasure.

Jill Harrison (28:14):

Thank you for listening to today's impact collaboratory grand rounds podcast. Please be on the lookout for our next grand rounds and podcast next month.