Lisa Dixon (00:07):

Welcome to our podcast, Psychiatric Services From Pages to Practice. In this podcast, we highlight new researcher columns published this month in the Journal of Psychiatric Services. I'm Lisa Dixon, editor of Psychiatric Services, and I'm here with podcast editor and my co-host Josh Berezin. Hi, Josh.

Josh Berezin (00:24):

Hi, Lisa.

Lisa Dixon (00:25):

Today we're going to have a really, really interesting discussion about collaborative care versus co-located care. I'm really looking forward to it.

Josh Berezin (00:34):

We're very fortunate to have Dr. Henry Chung, who is a professor of psychiatry at Albert Einstein College of Medicine here to talk with us about his paper, Medicaid Costs and Utilization of Collaborative Versus Co-location Care for Patients With Depression. So welcome. Thanks so much for joining us.

Dr. Henry Chung (00:50):

Oh, you bet. It's a pleasure.

Josh Berezin (00:52):

So tell us a little bit about how you got interested in integrated care in general.

Dr. Henry Chung (00:58):

Well, it's a long story. I'll try to keep it short, but in the late nineties, I had finished my residency training in psychiatry and I wanted to go back to the community I grew up in, which was Chinatown, New York. And I worked first in a outpatient mental health clinic and noticed that a lot of the Asian, mainly Chinese patients that were coming in were coming in mainly in crisis and they had many, many more years of illness than comparable white and even Latino patients that we were seeing in the Lower East Side.

(01:33):

And it dawned on me during the year and a half that I spent there that we had to figure out earlier intervention models to figure out how we could get better access to Asian Americans and other racial minority ethnic groups. And I had an opportunity then to lead a federally qualified health center in Chinatown as its medical director. And that's when I developed an integrated care program in the late nineties called the Bridge Program, which was a co-location model. The only twist with it was that not only did we have a social worker working alongside me in the primary care clinic, but that social worker also was employed by the outpatient mental health clinic that I used to work at that had Asian bilingual capability. And so he formed what we call the human bridge and it was called the Bridge Program for that reason. That was my first early stage integration model program in primary care.

Josh Berezin (02:32):

Has it become a research interest of yours as well? Have you bridged, I guess, both clinical work and research?

Dr. Henry Chung (02:40):

Yes, very much so. I've been fortunate in my career in all of my various administrative roles in primary care and psychiatry to always have a chance to implement different types of integrated care depending on the setting. Whether it was in FQHC, federally qualified health center, primary care clinic or in college and university health, then with a large health system like Montefiore Health System, I've always had the capability and opportunity really to work with the system that I was in to integrate these models and they've been incredibly effective. And so part of my academic career has been largely focused on publishing on some of that work, whether it was implementation work or evaluation work, and in a few cases some research work.

Josh Berezin (03:29):

So you're really immersed in this world and you mentioned that you started with a co-located clinic, but for those who aren't as familiar with integrated care and some of the models and concepts around it, could you just describe the two models of integrated care that you're talking about in this particular paper?

Dr. Henry Chung (03:44):

Absolutely. First, because I started with co-located care, let me just describe that. A co-located care is basically in this instance a primary care clinic or health center or primary care practice that is able to bring in a behavioral health professional into their practice and be able to use that behavioral health professional in the practice to help treat the patients. So that is simply co-location type care.

(04:16):

Now there are different variations of that. For example, a very prominent one that's been described in literature is the Cherokee model where they use very use psychologists and social workers as the behavioral health professional in their clinics. And they not only do sort of the psychotherapy and evaluation, but they do a lot of anticipatory work, medical support and that kind of thing, not waiting for diagnosis to appear, but if someone has brittle diabetes and needs help with adherence, they get involved. So that's co-location very simply.

(04:52):

The collaborative care model really came about, I would say in the late nineties, early two thousands, and we have to give credit to Wayne Katon at University of Washington and Jurgen Unutzer. It was they who kind of said, "Well, we have to be a little bit more robust than co-location. We should be figuring out whether or not we can really track outcomes during the course of the treatment." And so collaborative care would involve a measurement-informed approach, a treatment-to-target approach, which they brought into, if you will, that integrated model.

(05:34):

The other piece [inaudible 00:05:36] important is that they brought in this notion of a care manager working in that primary care health center. Why is that important? Because it's been shown that many patients have either no show rates for behavioral health even in primary care or need significant follow up to adhere to an action plan, or a treatment plan, or to stay on their medication, or to work on social drivers of health.

(06:06):

So that care manager is responsible for helping to get outcomes and getting those scales done on a regular basis like the PHQ-9 for depression, as well as managing what we call a registry, which is really a

fancy word for saying it's a tracking tool that tells you who is not coming back and who's not getting better. And if they're not getting better and not coming back, the team is required to do something about that. And that approach, and many people have called them enhancements, in the collaborative care model has led to a robust literature that suggests that the outcomes may be superior when utilizing that specific type of model for integration in primary care.

Josh Berezin (06:56):

That's a great entree into the paper because you're looking at, you're trying to compare these co-located models versus the collaborative care model that you just described. But before we dive in, just tell me a little bit about how you were able to compare clinics that were doing different things and maybe a little bit about who we're talking about, where are these clinics, what's the population that they're serving?

Dr. Henry Chung (07:21):

Right. So I can talk about that now, Josh. We did this study and analysis at the Montefiore Health System, and Montefiore Health system has 23 primary care clinics spread throughout the Bronx Borough of New York City. And for those who are not familiar with New York, the Bronx Borough of New York City is a high-needs community. It has about 1.8 million residents in the borough. And incredibly, half of the residents in the borough are on Medicaid, which is a marker for right low income, generally speaking high need. So that's the community that Montefiore Health System has served traditionally in the Bronx. And in these 23 health clinics, they, like many other health clinics in the 2000s jumped on what was called a patient-centered medical home model, PCMH. And essentially what that model said was that, hey, if you're doing primary care and you do essentially a higher form of team-based primary care, the patient-centered medical home, you are going to get better outcomes.

(08:33):

And part of that PCMH model is paying attention to behavioral health, which includes screening for at least depression, sometimes substance use and sometimes anxiety. That's part of the patient-centered medical home model. And we were fortunate in that when we jumped on that bandwagon and got those certifications, we were able to do co-location. And that literally means that in each of these clinics, there was a licensed clinical social worker employed to work with the team. And if he or she was doing evaluation and also some psychotherapy, and if they needed further diagnostic assistance or medication management support, they would then consult with a psychiatrist who was typically not located at the site, unless it was one of our very large sites. But he or she would have access to that psychiatrist and that psychiatrist could come on site, or do something by phone or do virtually, all of those kinds of things. And that's what we called co-location.

(09:38):

That pre-existed, if you will, the development of the collaborative care model, which I brought in as an enhancement to the Montefiore Health System. And we selected seven clinics to actually do the collaborative care model using federal grant funding support. And that is what gave us this opportunity then to examine, if you will, the difference in both clinical outcomes, which we published in a different paper, as well as in this paper, the utilization and cost outcomes.

Josh Berezin (10:08):

So you have a natural experiment where you're already doing co-location in a set of similar clinics, and then you add in collaborative care to some of them. And so now you can try to see what the differences were in some of the service utilization and costs.

Dr. Henry Chung (10:25):

Exactly, Josh. I mean, with the usual caveats that when you do this type of analysis, which is really, if you will, a retrospective cohort type analysis, in this case, you really do need to make sure that you are adjust for the important covariates because you can get some site-by-site differences and age differences and things like that. So we try to account for all of those things in our analysis.

Josh Berezin (10:47):

So just, I'm going to take a stab at your methods and you can let me know how I do, and hopefully I won't dumb them down too much. But it sounds like people were considered to be participants in the study if they had a positive PHQ-9 score. And basically if they did, that entered them into the cohort, and then you looked back for that person to get a baseline sense of cost and service utilization, and then also look forward after that positive PHQ-9 score to see the same thing. So you have a baseline cost and service utilization, and then you have cost and utilization after they've kind of entered the collaborative care or co-located model. And then you're looking at the differences between clinics for all of the people who were in co-location versus all the people who are in collaborative care.

Dr. Henry Chung (11:41):

That's a very fair representation of our methodology. The only caveat I would add is that we were limited to Medicaid, and obviously we serve more than Medicaid, but Medicaid was where we had the most complete dataset for the time periods that we needed for that design to work, for the methodology to work.

Josh Berezin (12:00):

Just so people have a sense, I've said utilization like three or four times, what are we actually talking about when we're saying service utilization?

Dr. Henry Chung (12:09):

Well, it's really a great question because when we talk about utilization, we talk about it now in the context of population health. And what people care about in terms of what we think is part of cost-effective care is attachment to primary care, meaning that there's some continuity and that if you have continuity with primary care and if the preventive things and the things that primary care can handle are being handled, it should result in lower ED utilization, it should result in lower inpatient utilization, particularly what we call preventable or ambulatory sensitive inpatient utilization. It should also decrease excess, and this is a controversial word, but excess medical specialty utilization.

(12:57):

In other words, we all know as psychiatrists and behavioral health professionals that you can have a lot of somatic symptoms and that people can get lots of GI referrals and cardiology referrals for often what is a behavioral health condition that needs to be treated. So you want to reduce medical specialty if you can. So that's generally what we mean, because it's been shown that if you can get that utilization moving in the right direction, you get better overall outcomes for the patient and potentially save money for the health system. That's the premise and that's the way we think about utilization in this paper.

Josh Berezin (13:35):

So before we dive into the findings, one of the things that I was curious about is why you limited your analysis to people with depression. So there's the PHQ-9 score that gets them into the study, but you excluded people with, I think, bipolar disorder, psychotic disorders and cognitive disorders or cognitive impairment. So what was the reason for that?

Dr. Henry Chung (13:59):

Fair point, and actually very important to establish why we excluded those subpopulations. First, it was consistent with the integration model employed at the Montefiore Health System. In other words, it didn't matter whether you were in co-location or collaborative care. These patients in general, all primary care clinicians and clinics agreed that even if we tried to do some early stage treatment type stuff, they ultimately would be better served in a behavioral health specialty referral setting. So that that's number one.

(14:35):

But number two is that, and this is very important, the literature has suggested that the collaborative care model, and to some degree the co-location model, are much more effective for depression, anxiety, sort of the higher prevalent conditions in primary care. And although there is some evidence right now that collaborative care models can work for bipolar, can work for anxiety, still best evidence is still for depression. Next would be anxiety, in my opinion.

Josh Berezin (15:05):

On to the results. What were were the top line findings from the paper?

Dr. Henry Chung (15:11):

Well, I'll tell you, I was very excited about these results. First of all, recognize that when we look at these types of studies, utilization and cost type studies for integrated care in primary care, we're typically comparing to usual care or community care. We're not comparing two active models of treatment. So going into this analysis, I was not confident that the more enhanced type of integration model, meaning the collaborative care model, would necessarily have an advantage in the analysis with regards to utilization or cost. I was not convinced of that. So I had an open mind about it. So I was very pleasantly surprised to see that, in fact, we found those positive utilization outcomes that we wanted to see. Meaning that in the first year you saw more primary care connection, slightly more behavioral health services being provided, which you would expect, but somehow resulting in less medical specialty care and less ED utilization.

(16:28):

So you're beginning to see in the first year after intervention that, wow, there's a signal here and it's collaborative care significantly better statistically than co-location care. And then in year two, with the cohort of folks who actually have two years of post-intervention experience, you see a strengthening of those same indicators, those same outcomes. Plus you now have statistical significance for inpatient medical admissions, which is kind of giving you this story that, yeah, over time it looks like intervening for depression does lead to better utilization outcomes. And in these two active treatment models, in my view, the paper suggests, our research suggests that the collaborative care model has an advantage.

(17:27):

Now, I should point out that we have a previous publication where because we had this opportunity to look at outcomes, meaning clinical outcomes, we demonstrated in a prior paper that was published in

Psychiatric Services that over the course of the first 12 weeks of treatment, collaborative care got people better faster. And that was a significant finding.

(17:49):

So I just want to point out that this type of analysis, type of study, is very infrequent and in my view looking at literature, this is the first time we've reported on a collaborative versus co-located care, Medicaid cost and utilization. I'm not aware of any other study that has done this. And so we were very excited. The one disappointment, top line, is that we didn't see cost differences, although there's a story to be told, and I'm going to take some liberties here and just take off my research hat for just a second.

Josh Berezin (18:18):

Yeah, put on your podcast hat.

Dr. Henry Chung (18:21):

All right. Podcast hat, Josh. I love it. I love it.

Josh Berezin (18:22):

You could just freestyle here.

Lisa Dixon (18:24):

Everybody has a podcast hat.

Dr. Henry Chung (18:26):

All right, here's my podcast hat. So my podcast hat is, cost was not significantly different in both years, but there's a story here.

(18:35):

In the first year, what you see is that even though it's not statistically significant, costs were higher in the first year. And that's kind of what you'd expect. You're getting people right when they're identified. We've seen this phenomenon in medicine before. You identify that someone's got an illness or untreated condition, and they're just starting to ramp up the utilization, right? You're just seeing that and you see this over and over again in medical studies. And then of course you're giving them more services to intervene. So we see that. They're not statistically significant between the models, but there's a ramp up in cost for collaborative care versus co-location and we'd expect that. There's a higher intensity of stuff going on.

(19:14):

But in the second year, you see actually the cost now go in the other direction, which is this decreased cost in the second year, which is kind of where we're beginning to see the payoff. Now, why is that important even though it's not statistically significant? First, it's consistent with other studies that have been published where collaborative care versus usual care or community care or no care showed an advantage in cost, but only four years out. And they had a cohort that was primed for cost savings, meaning they had an older age cohort, it was largely Medicare eligible in the impact study. And if you include the Intermountain study, which I did in here, which is another prominent Pfizer-like organization out in the West, they also found, but it took basically three to four years.

(20:04):

So we didn't have three to four years to analyze this, but it to me feels somehow concordant with the idea that you would expect that maybe cost savings occur later than earlier. So that those are the top line results.

Josh Berezin (20:21):

So if you're deciding whether your clinic is going to implement one of these two models, I think you would interpret this as being for team collaborative care. Are there any other arguments for co-location that are outside of... I mean, so if you're starting to get cost and you're getting utilization and you're getting outcomes, it's kind of hard to imagine another category that would really push you in that direction. But are there logistical or implementation or patient factors that might make you still choose co-location even though you are getting some evidence of better results with collaborative care?

Dr. Henry Chung (21:03):

Yes, I think so, and I'm agnostic about this, although I do believe in my results and other results about the strength of the collaborative care model. The truth is that, first of all, it's easier to implement a co-location care and particularly post-pandemic, the idea that you can get someone available to you virtually or in-house in your clinic and you don't need to worry about measurement informed care, giving people scales, treatment to target. There's a simplicity to it. And there's a billing simplicity to it too, because, well, if I refer to you and you are a licensed professional, well, you bill for your services, I bill for my services, we're done. So there's a simplicity to it and in certain situations I could imagine it is just simply easier to start to implement.

(21:58):

Now, I would also argue there are some really robust models like the Cherokee model where they've had a long history of doing this and they do more than what I just described. They do more screening, they do more anticipatory work, they don't wait for a problem. And so you can do robust, more robust, co-located models and ramp up, if you will, your sophistication. But what I described I think is really the vast majority of co-location model, which is you put someone in the practice, you refer to that person in the practice, everybody bills their own stuff and we're done.

(22:32):

With the collaborative care model, what I recommend is that people who want to do collaborative care, that they think about getting that behavioral health professional or a care manager and then start adding on these components, like treatment to target. That's a big part. You can't call yourself a collaborative care model unless you are doing treatment to target. So are you willing to do treatment to target and are you willing to not only follow the outcomes, but if a person's not getting better fast enough, change your treatment plan.

(23:05):

So that could include adding psychotherapy. That could include addressing social drivers of health. That could include changing the medication or augmenting the medication. It could be any of those things. But the key is that everyone's committed to doing something different if someone's not getting better. The second thing I think is you have to be committed to this tracking function or this registry function, which is that the data shows over and over again that people drop out of treatment and often for reasons because they're frustrated with not getting better. And so if you just assume that if people stop showing up after three sessions, they're no longer interested, you're really sort of missing half the pie. Because the other half of the pie is someone's got to do that proactive outreach, know that they've dropped out of treatment and then be willing to work on re-engagement. And that's part and parcel of

the collaborative care model as well. So I think for those reasons, that's why we get perhaps, as in this study, better outcomes with the collaborative care model versus a very standard co-location model.

Josh Berezin (24:06):

So one thing you mentioned in there was Covid, and you actually mentioned this in the paper that the study happened prior to the Covid pandemic. I was just very curious about if you have a sense of how integrated care in general, either co-located or collaborative care, changed during the pandemic and if those changes are kind of baked in now and if that might make a difference in how you think about these various models that you're talking about here.

Dr. Henry Chung (24:40):

I'll tell you, Josh, Covid was a game changer on so many levels. And for integrated care, no difference. Huge impetus for adoption and varying the model and all kinds of things. So let me try to be a little bit specific here. So first thing is that as a result of Covid, behavioral health needs have shot up through the roof for all age categories and we just don't have enough behavioral health workforce. So primary care is it in many places and they are looking to integrated care models. So the rate of adoption right now around integrated care models in primary care is extremely high. And you can think about it in very simple terms. If you are not co-located, I guarantee you what's happened is that you are in a primary care practice and you've been told by several health plans that you contract with that virtual behavioral care is available to your members, and this is how they get in.

(25:44):

And these virtual care companies are providing some form of integrated care. It could be straight referral, but a lot of these folks are saying, Hey, we're willing to partner with primary care because it's so easy for us to just zoom in and if you let us be a part of this conversation with the patient. So at its most basic, it's driven up the need and the demand.

(26:06):

The second thing I would say is that it's demonstrated in both these models that virtual use of technology employed in those models are accelerants and actually help support both these models. Co-location because you no longer have to have that person in your clinic. Collaborative care, you can not only not have the psychiatrist in the clinic, but you can have the care manager not in your clinic anymore for a large number of your patients.

(26:36):

Now I will say that when you're talking about low income patients because of issues around internet access and so on and so forth, there's slower uptake around the technology piece, but I've been pleasantly surprised at how willing many of our patients are at Montefiore to use virtual ways of getting this integrated care going.

(27:00):

And then the third thing I would say is that if you look at the policy support and landscape of integrated care, that also is substantial. Now, before the pandemic, there were these new billing codes that were available to support collaborative care specifically, meaning the care manager pieces of it, right? That person's not a licensed professional in many cases. So you have to kind of figure out how to reimburse that care manager for doing all that treatment tracking and navigation they're doing. Well, those codes were created and now we're seeing more of an uptake of people utilizing those codes. So that's helpful.

(27:36):

We're also seeing an expansion of those codes because people in the co-location side say, "Wait a second, we do some version of collaborative care and if we do some care management pieces, can we get reimbursed?" And so newer codes have been provided for those folks who are doing co-location and maybe doing a little bit more than co-location. And then you do see that amongst the federal agencies, health and human services, those that govern the federally qualified health centers, that there are incentives to developing integrated care models, either upfront startup costs money, or more grant funding to get this out into the field. And so we're seeing that as well. All of that, I think, due much to the Covid pandemic.

Josh Berezin (28:21):

It's just been amazing to talk with you and have your perspective of opening these clinics 20, 30 years ago or starting these programs and being able to have that sort of longitudinal view of all of this. Before we go, anything else that you wanted to add?

Dr. Henry Chung (28:40):

Well, two things. One is I just want to tell you how much fun I've had doing this. For me, it's been a personal journey. The first, I would say, 15 years of my career, I toiled at working at integrated care and most people just thought it was a hobby because I'd go to the American Psychiatric Association meetings and these meetings for the sessions around integrated care was fairly not very well-attended. It was just the diehard folks. But over the last five, 10 years, the interest in this has grown. And for me it's been gratifying because I feel like the first 15 years I was knocking my head against a tree or something and trying to get the word out. So thank you for this opportunity, to you and Lisa.

(29:19):

But the second thing I'll say is that I do want to acknowledge my co-authors. The pandemic had an impact on us as well, and getting this paper out was really not easy because we were diverted from doing a lot of these analyses during the pandemic. So I want to thank Urvashi Patel, Dana Stein, Kayla Collado, and Michelle Blackmore. We could not have gotten this data out in publication without all of us working as a team, really trying to get this word out into the field. Thank you.

Josh Berezin (29:48):

Well, thank you so much. It was fantastic talking with you, and we hope to have you back on some point to give us more updates on how things are going in the integrated care world.

Dr. Henry Chung (29:58):

Great.

Lisa Dixon (30:00):

That's it for today. Thanks to Aaron Van Dorn for mixing and editing and Demery Jackson for additional production support. We invite you to visit our website, ps.psychiatryonline.org to read the article we discussed in this episode as well as other great research. We also welcome your feedback. Please email us at psjournal@psych.org. I'm Lisa Dixon.

Josh Berezin (30:19):

I'm Josh Berezin.

Lisa Dixon (30:20):

Thank you for listening. We'll talk to you next time.

Speaker 4 (30:23):

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