Sanya Virani:

Hi, I'm Sanya Virani and I welcome you to Finding Our Voice -Fresh Perspectives in Psychiatry, a podcast series hosted by me. This podcast has been developed with a goal to address heart issues as they pertain to psychiatry, with a special focus on including the viewpoints and opinions of younger groups, resident, fellow members, and early career psychiatrists. Thank you for joining me as we continue our discussion on this next segment of the podcast series about social determinants of mental health.

Today's episode will focus on the impacts of social exclusion and isolation on mental health, and provide some insights through case discussions about intensification of this issue during the pandemic. I would like to welcome to this very first episode of the segment, Dr. Dolores Malaspina and Dr. Luca Porcelli from the Mount Sinai Health System.

Dr. Dolores Malaspina is the chair of the research and education work group of the current presidential task force on social determinants of mental health chaired by Dr. Dilip Jeste. Dr. Malaspina directs the psychosis program called Critical Connections at the ICAN School of Medicine at Mount Sinai, where she's a professor of psychiatry, neuroscience and genetics and genomics, and the vice chair for DEI. She was previously the Steckler professor and chairman of the NYU Bellevue Psychiatry Departments where she founded and directed a multidisciplinary program for research and training called Inspires Institute of Social and Psychiatric Initiatives. Dr. Malaspina trained in psychiatry at Columbia University and the New York State Psychiatric Institute where she was the chief resident and founded the Schizophrenia Research Unit and Prodromal program, rising and ranked to professor of psychiatry. She is also a zoologist with an MBH in epidemiology from the Mailman School of Public Health at Columbia University, continuously conducting transformational research in neuroscience. Dr. Malaspina received continuous NIH support to examine the heterogeneous sources of psychosis vulnerability with current research of the microbiome and neuroinflammation.

And as the director of Mount Sinai's site for the NIMH Genomics Psychiatry cohort, she has over 300 peer reviewed papers, has mentored several dozen beginning clinical investigators and serves on the DSMs Steering Committee for the APA for a decade. She was also the host of the Sirius XM Psychiatry Show. Welcome to the podcast, Dr. Malaspina.

Dr. Dolores Malaspina:

Oh, thank you.

Sanya Virani:

It's so nice to have you here. And Dr. Luca Porcelli is a PGY3 in the Mount Sinai Morningside West psychiatry residency program. Luca completed medical school and a residency in Italy. During his fourth year of residency there, he joined Dr. Michael Compton as a visiting scholar in New York. After graduating, he returned to New York as a research coordinator at Lennox Hill Hospital and then associate research scientist at Columbia University where he continued his work with Dr. Compton and collaborated with Dr. Lisa Dixon. His research has focused on strategies of recovery, social determinants of health, linguistic analysis of schizophrenia and public and forensic psychiatry. Welcome to the podcast, Dr. Porcelli. It is so nice to have you here.

Dr. Luca Porcelli:

Thank you for having me, Sanya.

Sanya Virani:

Thank you. In 2005, the World Health Organization developed the commission on social determinants of health and delivered a report on social determinants in 2008. Nearly four decades of research have produced robust evidence that scoring high on measures of social isolation in later life is associated with a significantly increased risk, nearly 25% for premature mortality from all causes in control studies. Now do you guys remember Jumbo, Jumbo the elephant? Well incidentally, September 15th were marked the one 36th anniversary of Jumbo's death, and that happens to be the release date for our first episode of this new segment on Finding Our Voice. Everyone knows the story of Disney's Dumbo, right? The 1941 animated classic about a baby elephant and with giant ears forced to perform in a circus after being separated from his mother. Fewer people know that the story taken from a 1939 children's book by Helen Aberson titled Dumbo, the Flying Elephant is inspired by a real elephant named Jumbo who captivated thousands across America while traveling in Barnham and Bailey Circus after becoming a treasured fixture of the London Zoo in the 1800s.

At first, there was nothing to suggest that Jumbo would go on to becoming a world famous celebrity, but over time, he became a national treasure for Great Britain where he remained. For 17 years, patrons of the zoo were captivated by the gentle giant that stood at 10 feet, six inches tall. Riding the majestic animal around Regents Park became the zoo's main attraction, and it is estimated that Jumbo carried hundreds of thousands of guests by the 1880s, most notably Winston Churchill, Theodore Roosevelt, and Queen Victoria's children. But behind Jumbo's dorsal facade was a deeply troubled elephant who was played by claustrophobia, night terrors, and the rats that relentlessly gnawed at his hooves. Things started to take a dramatic turn for the worst when Jumbo entered puberty and would descend into furious explosions of rage and aggression. At night, he began charging at the walls of his cage so mercilessly that both of his tasks snapped off, and when they started to grow back, he whittled them down to knobs by grating them against his pen.

One September evening in 1885, after the then 25 year old Jumbo and a small elephant named Tom Thumb finished performing. They were let down the grand truck railway tracks towards their animal cars. Jumbo was the first to spot danger trumpeting loudly as he saw the glare of the trains oil lamp reflect on the tracks. Jumbo began to run wildly down the tracks with Tom Thumb running behind him. Whistle blasts were let out from the train signaling for a break, but the train could not break in time and Jumbo died trying to save the life of his companion. Jumbo's remains died, however, tell the story of how he had suffered in life. Elephants, as you all know, eat leaves, twigs and bark, all of which helped them grind their teeth. But Jumbo had a diet of hay, grass, oats, sticky buns, leaving his teeth deformed and impacted. Perhaps the tooth pain and the trauma of being confined and isolated, and by the way, must, I mentioned here that Matthew Scott had been the only person to interact with him on a consistent basis throughout his life, and that was his keeper.

So perhaps this tooth pain and all of this trauma caused Jumbo to enter into some of his rages. High nitrogen levels were also found in his body indicating high levels of bodily stress. Jumbo's bones were comparable to an elephant twice his age. In short, Jumbo lived in chronic pain. Now, I'm not telling you this gruesome story of a circus animal's death, rather, I am asking you to keep this in mind as we begin our discussions about social determinants of mental health. Both humans and elephants are known to be social creatures, aren't they? This is food for thought as I turn it over to Dr. Porcelli to tell us about his patient, Jose. Our trial has planned to take up the issue of social exclusion and isolation specifically as it affects two types of patient groups, one with chronic mental illness who are already debilitated and have cognitive impairment, and the other type of patient group who's a little more functional and able. And more recently because of the pandemic, seem to have been affected in a different manner. Our hope is that the discussions will offer perspectives for clinicians to include and make some practical alterations and additions to their treatment plans while keeping social exclusion and isolation explicitly

at the back of their minds as a social determinant of their patient's mental health. And with that, I'm going to turn it over to Luca.

Dr. Luca Porcelli:

Thank you, Sanya. I will talk about Jose, a 50 year old year old gentleman who carries diagnosis of schizophrenia. Jose was born in New York City to Puerto Rican immigrants who moved to the states for job opportunities. Jose's dad was offered a superintendent live in position in a luxury building in the Upper East Side when Jose was only six year old and the entire family, Jose had a brother eight years older than him moved out of the Bronx where they had a supportive Spanish speaking community and they moved to the new neighborhood. In the new apartment, Jose started spending more time by himself since his dad was attending to the building and the mom was working as a housekeeper and his brother was going back to his old neighborhood to stay connected to his friends. Jose struggled with school since his English was almost in existence since his family used to speak Spanish at home.

At school, Jose had a tough time making friends and reports he was bullied because of this skin complexion and accent. In a school where the majority of the kids were non-Latino, Caucasian. When he was 12, he smoked for the first time the marijuana that he took from his brother who had left a joint unattended, who reports that he really liked it because he felt more self-confident and that allowed him to connect with the other peers. Around the age of 16, he started to use marijuana daily to overcome the anxiety of dealing with people and to reduce that feeling of being isolated.

He was barely able to graduate from high school and the summer following graduation, he stopped going out with his friends, was smoking up to 10 joints a day, stopped taking care of himself, and started getting into fights with his parents who were accusing him to be lazy. It was only when he started barricading himself in his room, refusing to eat the [inaudible 00:11:11] food that his mother was making, that the parents realized that there was something wrong with Jose. During one of his outbursts of anger, the family decided to call 911, and Jose was involuntarily admitted to a psychiatry facility. It took several years for Jose to develop insight into his condition with numerous involuntary hospitalization. The common pattern of relapse was an increase in isolation that would lead to not attending to daily activities and treatment, exacerbation of delusional thoughts and hospitalization.

Sanya Virani:

Very quick interjection Luca, and thank you so much for starting off and describing the case of Jose, of which several aspects seem to almost replicate the clinical scenarios that we see in daily practice, right? And just as a point of information before I ask you a couple questions, and because it reminded me about a specific [inaudible 00:12:08] code in the DSM, which is 62.4, which is the target of perceived adverse discrimination or persecution, given the bullying that you mentioned, first of all, which to me could easily lead to social exclusion in children and adolescents, right? And on the same lines, on page 724 of the DSM V, there is mention of the problems related to living alone and recurrent social exclusion or rejection and being purposefully excluded from activities of peers or workmates in one social environment. The code for that is actually 60.3. So these are two things to keep in mind as it relates to this case clinically. Back to Jose's story though, Luca, in between the hospitalizations, how isolated did he continue to be and did the treating doctors actually try to engage him to come to day treatment programs?

Dr. Luca Porcelli:

Well, that's a good point. Jose had predominant negative symptoms in between crisis and despite having been offered opportunities to engage in groups, unfortunately, he continued to decline offering

very vague excuses that he didn't feel like, he was not interested. It was only later on in his early thirties that he agreed to include into his treatment plan attendance to a social skill group that culminated his attendance at a clubhouse in the city. The attendance to the social group marked also a time when he became able to relate better with the provider and to name feelings about interaction with others. He started feeling part of a group and this made him feel seen, valued in a way that he had not experienced before. From just being a user of the clubhouse, Jose ended up working at the clubhouse. He was a receptionist there. I would say that along with quitting smoking cannabis, the social intervention was the major intervention that contributed to Jose's recovery process.

When the pandemic hit March of 2020, the clubhouse closed and Jose found himself back in the same apartment with his parents, now retired and around most of the time. Despite their presence though, Jose preferred spending most of his time in his room alone. Although he was offered to join remote access to meetings and activities, both through our service and the clubhouse, he preferred not to take part. He attended his appointments with me in person, maintaining adherence to treatment, but experiencing a worsening of the negative symptoms, including flooding of his affect, poverty or speech, atrocity and sociality. During this time, Jose also developed hypertension.

Sanya Virani:

Right, thank you for that very nice description of Jose's case and the course of what happened to him. It is sad. But on that note, I wanted to ask Dr. Malaspina about her exploratory study on loneliness in patients with schizophrenia that I recently read, and that had been published in psychiatry research in 2016, actually.

Dr. Dolores Malaspina:

Thank you. Yes. Loneliness can also be a consequence of impairments in social cognition that make it difficult for a person to connect. Given the poor social cognition. In schizophrenia, the high cardiovascular comorbidity, we undertook a study to examine the connection between loneliness and cardiovascular risk factors. We studied 51 patients with schizophrenia, or schizoaffective disorder and 58 controls, and used the revised UCLA loneliness scale to actually measure loneliness in the different groups. We tested social cognition with a facial perception task and a self-report questionnaire.

Now, unsurprisingly, patients with schizophrenia had substantially more loneliness, and that's important. We sometimes think patients prefer to be alone, but in fact, they are experiencing loneliness, and the loneliness in the cases was associated with their poor social cognition, with their risk of having a substance use disorder and also with high blood pressure, elevated hemoglobin A1C, which is a risk factor for diabetes. Showing this connection between social cognition to loneliness to these cardiovascular complications. I think we need to pay more attention to loneliness in our cases. I mean, Luca made this point, so well, we don't assess or think about loneliness, but it clearly can be a risk factor for cardiovascular disease.

Sanya Virani:

Yeah, absolutely. I agree that we have probably seen this anecdotally in clinical practice, so it's really helpful to have such a nice summary of the seminal findings of this really valuable study. Now, Luca, back to you, and simply because of course the pandemic did a 180 and transformed the lives of many people, and the delivery of healthcare and also increased people's reliance on technology. So what has been your experience with the chronically ill patients and possibly even those that were isolating, but having had to accept and utilize technology to receive health services over the past year? That's one. And then I also want to know, please, how things actually ended up with Jose.

Dr. Luca Porcelli:

So my experience over the last year and a half, I thought it was very interesting, like living in New York and having to attend many shifts in the emergency room, there were several aspects of isolation and access to technology that I thought it was very interesting, like seeing shelters relocated from where they usually are to Midtown, for example, I found that patients with serious mental illness were struggling so much just because they were not anymore in their neighborhood. And on top of that, especially the ones that were used to receive services in person from, for example, acting or forensic act, they found themselves having to deal with a cell phone. And many time they didn't even have a cell phone or I don't know, people that had a comorbidity of substance use. The cell phone was a good way to sell it out and maybe make some money to use.

In our clinic, we found ourselves that with an increase of people, an Chris attendance at the beginning, like people that had a phone and or were able to engage better in care compared to coming to the office. But then on the other side, there were people that were not technology savvy. And even this morning I had someone that was like, doctor, I just want talk over the phone and I don't want to use the camera. I look weird in front of the camera, please, let's use the phone. But back to Jose. So the cloud house reopened last June and thank God New York City's back, or maybe it was back before Delta to almost normal, and Jose was able to return to the clubhouse. So during my last visit with him for the first time in a year and a half, I saw him walking in and smiling, facial expression time, and he said, "Doctor, I'm happy that I can see the others." Which was definitely a mark changed from the yes no answers that he gave me in the last year and a half. It was so warming to see him back to, through social connection, being able to experience that warmth, his presence even with me.

Sanya Virani:

Thank you so much Dr. Porcelli, for going over this case example with us. I definitely feel like the more and more you described it is an often encountered scenario for many clinicians with many of their patients today that are called the practical recommendations of keeping in mind the idea of screening for isolation and then orchestrating patients induction into groups and day programs sooner is all the more important now, and we might often underestimate the utility of such interventions. But as the pandemic continues and refuses to end, it reminds us about the deleterious impacts of this particular determinant of mental health. So it's something to always keep in mind. Let's move on to the other case that we have for today. Dr. Malaspina has this case for us. It is one that illustrates the example of a completely different patient profile and somewhat more complex, at least in my opinion. So over to you, Dr. Malaspina.

Dr. Dolores Malaspina:

Oh, thanks so much. I'm going to describe the case of Esther whose early and later life was quite marked by loneliness. It began with her mother's postpartum depression. Her mother, Susan, was a nursing assistant at a hospital some distance away while she worked each evening from 3:00 to 11:00. And while the mom came home and caught up on her sleep, the child was cared for by her father who'd been in a serious accident, injured his back, and needed care of his own. When mother Susan would come home at night, she would always check on Esther, and Esther would wake right up and say, "Play, play, play." And of course, Susan would stroke her back and hope she went back to sleep. Now, Esther made a good adjustment in school, but she suffered late in grade school, but her mother developed a severe depression. Esther would sit by the bathroom door she described, begging her crying mother to please come out. Now, notably Esther's own mother, Susan and her sibling had been placed in foster care as children during the Great Depression, and Susan also recalled great constant loneliness, longing to

return to her large family. Maybe that predisposed her to that depression and she did finally reunite with everyone.

Sanya Virani:

So this is really interesting to me, especially when you brought up Susan's piece of history and it really made me wonder, Dr. Malaspina, is there any evidence that you can tell us about or know of about the impacts of loneliness being transmitted across generations? Just like we hear about the concept of transgenerational trauma and epigenetics?

Dr. Dolores Malaspina:

Yes. Well, there's an emerging field called social epigenetics where people are trying to define the genes or clusters of genes that are modified in response to trauma, and that trauma can pass across the generations as shown in more and more studies. Certainly the pregnant woman fetally programs, her offspring, the offspring doesn't develop from some DNA of moms and dads genes, but instead is influenced during the pregnancy. And that fetal programming for maternal depression and other stressors is linked to psychiatric illness in the next generation.

Sanya Virani:

That's very interesting. Thank you for sharing that piece of information about research. Back to Esther's story.

Dr. Dolores Malaspina:

Well, oh yes. Well, in eighth grade, Esther who usually did whatever she could to cheer her mother stopped eating, cried constantly and would not get out of bed. She started smoking cigarettes in the bedroom closet the next year. Immediately upon graduating from high school where she was at the top of her class, she became hospitalized for a new onset psychosis. She recovered enough to go off to college, given issues with loneliness. It's not a surprise she married right away. That early marriage didn't survive her many hospitalizations.

Now, her parents separated after college and she returned home, I guess with that idea to take care of mother, but still had repeated hospitalizations. She met and married a man she had met at a hospital, and despite him being abusive at sometimes she was really unable to separate. She had some brief separations, but would always go back expressing that loneliness. Her progress really was thwarted when he died prematurely, right before or actually right after people started heavily vaping. And in her grief, Esther suffered a very severe deterioration. She had a very lengthy psychiatric hospitalization, and after that was referred for some rehabilitation for independent living. The good progress she was making got interrupted by covid. When covid began, no one was allowed to visit or see her, only by iPad. She descended again into a deep depression. And just as the visiting restrictions were being lifted, she passed away from a severe stroke.

Sanya Virani:

If viewed from a very empathetic lens, this seems to be a really heartbreaking story. It makes for a very interesting case because obviously you have told us about some of the consequences of repeated bouts of loneliness and how that played into her decision making, especially as regards to some important events in her life, particularly her marriage and then having to stay on just to avoid that loneliness and how things devolved and how that impacted her negatively in so many ways, more than we can start to

explain. So that was very interesting, Luca, any concluding thoughts on this case case that Dr. Malaspina just described?

Dr. Luca Porcelli:

It was so powerful and touching, it really puts together.... It made me think of how isolation, loneliness and attachment along with the social epigenetic plays a huge role in our patients and both stories. From both stories, it's clear that loneliness and social isolation played such an important role. So not only loneliness and isolation have been contributing factors to the development of the disorder, but also their persistence or recurrence have affected their recovery trajectories and the health outcomes throughout their lives. We are a social species. There is no doubt, and the impact of lack or loss of social connection should be part of the conceptualization and treatment plans for our patients, and that's not just for psychiatrists. That should be across disciplines. On a larger scale I believe we should continue to create awareness about loneliness and social isolation, social exclusion as social determinants of mental health and general health. Hopefully keeping the discussion ongoing will set the stage for an increase in funds for research and new interventions and a shift in policies that reduce the burden of loneliness and social exclusion and isolation.

Sanya Virani:

Thank you so much, Luca, for those insights. And with that, we come to the end of our eighth episode of Finding Our Voice, the first one of this new second segment dedicated to issues of social determinants of mental health. Our deepest gratitude to our guests, Dr. Malaspina and Dr. Porcelli. We are so thankful for your time, the stories you discussed and the insights you provided. We really enjoyed learning from you about your various experiences and your perceptions of social exclusion and isolation among your patients, and greatly value what you have shared with us today.

Dr. Luca Porcelli:

Thank you.

Dr. Dolores Malaspina:

Really a pleasure.

Sanya Virani:

This discussion, I think, will certainly find a lot of application in daily clinical practice. Now I'd like to leave you with one final thought. Elisabeth Kübler-Ross, the celebrated Swiss American psychiatrist once said, I have never met a person whose greatest need was anything other than real, unconditional love. You can find it in a simple act of kindness towards someone who needs help. There is no mistaking love. It is the common fiber of life. The flame that heats our soul, energizes our spirit and supplies passion to our lives. Thank you.

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Speaker 4:

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