WhatisGlobalHealth-2013-TunedInToTheBrainTheNeuroscienceOfMusicAndMusicTherapyDrConcettaTomaino

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[Music]

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What you just heard was a clip from a musical performance by patients, many of

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whom suffer from speech impairment as a result of brain injury, who are currently

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undergoing music therapy. But more on that later. This is "Way. What E's Global Health?"

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Health, the podcast of the Journal of Global Health, episode 15. This episode is the first

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of a three-part series on the role of music in medicine and the relationship between music

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and the brain. I'm Cynthia Lee. In this episode, I speak with Dr. Consetta Tumano, a pioneer

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in the field of music therapy. She is the executive director of the Institute of Music

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and Neurologic Function and senior vice president for music therapy at the Central Light Health

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system. Dr. Tomeino discusses her role in the foundation of music therapy as a field

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and her experience as a practitioner. We explore the neuroscience of the effect that music

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has on our brains as well as the often overlooked power of music in medicine and health.

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Alright, so we are here with Dr. Tomeino, who is a very prominent music therapist. So let's

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So let's get started with questions right away.

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So what exactly would you say music is?

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And why is it so appealing to such a wide audience?

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- Sure, well music obviously is so pervasive

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in all of our lives.

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Very few people, even people who have hearing problems,

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don't listen to music in some capacity.

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The other thing that's so interesting about music,

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especially when we're talking about neuroscience

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and music in the brain,

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is that music offers to appreciate its process

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by so many areas of the brain,

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which makes it a very interesting

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and possibly powerful tool to use in therapy

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because of all the different ways music taps into

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networks and areas of the brain that are functioning

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and people who may have different kinds of deficits.

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- Right, so what made you go into the field of music therapy?

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I know that's not the very first thing I think of

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when I think of neuroscience or any type of science,

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it's such like an interdisciplinary thing

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where you take music, which is such like artistic pursuit,

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and then mix it with neuroscience

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or music therapy.

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So what made you interested in this?

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- Sure, well you know, I tell the story a lot,

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but as an undergrad, I was a pre-med biology major.

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- Oh, wow.

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- And had played trumpet in high school.

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Also took music lessons on accordion when I was a child,

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But when I went to SUNY Stony Brook for sciences,

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I was interested in taking trumpet lessons,

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so I ended up needing, well, I was told by the professor

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that I couldn't take trumpet lessons

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unless I was a music major.

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So I ended up double majoring in music and science

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for about a year or so until I realized

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I was absolutely hooked on music

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and didn't know what to do with my life.

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And the end of my junior year, or in my junior year,

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found out about the field of music therapy, which was still fairly new.

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I went to college in the '70s and the field of music therapy was formally organized in

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the United States in 1950, but there were still very few schools on the East Coast that

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had programs in music therapy.

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So I ended up getting my master's at the Stony Brook at NYU, New York University.

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My first clinical placement was with children, but my second clinical placement was with older

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adults in the nursing home within stage Alzheimer's disease.

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They were minimally responsive, very agitated, behaviorally very disturbed as far as the

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ability to connect to the world around them.

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My job was to play music for them and to do something to change the atmosphere of the

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place.

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But I started singing the song and playing music and the people who were extremely agitated,

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calmed down, and the people who seemed to be catatonic and not aware of anything opened

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their eyes and half of them started singing the words to the song.

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So just a casual observer would say,

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isn't that interesting?

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They know the song.

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But here I am with the science mind and said,

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but how do they know the song if they have no cognitive

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processing?

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People within stage dementia supposedly

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can process information.

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So how are they processing noise as music?

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How could they understand that the stream of sound is a song

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and not only recognize it as a song,

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but then we call the words.

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So right then, this is in the mid-seventh,

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about 1977, 1978.

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So imagine somebody like myself totally intrigued

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by why people with such severe brain damage

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could still respond to music, right?

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Nothing else in the world made sense to them.

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So what was it about music that informed the brain

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and allowed these individuals to come in that moment

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back to some level of connection?

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there was nothing written about music.

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There was not very little written about the brain, per se,

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in 1978.

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And then, so that was my first,

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sort of my epiphany of,

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this is really important.

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We have to, I have to figure this out.

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And it's just my very good fortune

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that I came here in 1980,

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and Dr. Oliver Sacks was the staff neurologist

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who had just finished working

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and publishing a book called "Awakenings."

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- I have read that book and I've watched the movie.

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- Enjoyed both.

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- Right, okay, really amazing.

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- Here I am in this place, just talk about serendipitous

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events.

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- Right.

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- There is a neurologist, a doctor,

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who is also asking the same questions.

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Why does music and art awaken lost minds and lost bodies?

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So together he and I eventually worked a lot together

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and were really, really curious.

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And there really wasn't anything.

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I mean, Oliver, Dr. Sacks had read

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and everybody's work at that point.

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I mean, really brilliant.

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But still there were no clear answers

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about why this happens, why how it happens.

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And early on in the '80s,

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we tried to enlist some scientists to study this.

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And even they didn't have the tools back in the 80s

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to really study this.

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They could study very specific auditory perception of pitch,

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or they could study the difference between

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the spoken word and the sung word,

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where is that, where's the dominance for that.

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And they bring but nothing that can really translate

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to what we were doing and what we were observing.

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- So you were basically almost like a pioneer.

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in this area.

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In this area, yeah.

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Well, that's really exciting.

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So, I'm just wondering, because it was such a new field back then when you first became

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interested, were there a lot of other neurologists who just kind of jumped on board, or were

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people very doubtful about this?

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No, well, everybody, you know, people were doubtful, but there were other people around

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the same time who were starting to look at music in the brain, for sure.

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Now there were people, Irving Weinberger out in California at the University of Irvine,

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California, California Irvine, obviously was doing things.

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There were Masiata and Robert Titori and people who were starting to do research on perceptual

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elements of sound and brain function.

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So this was all happening, but don't forget internet is unavailable in 19, you know, there's

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There's no way for people to really connect on a global way or to even be informed of

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each other's work unless you were in those communities and actually knew each other.

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So the idea of scientists being interested in complex stimuli, which is what music is,

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and having the tools to be able to study that started to get the scientists in themselves

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very interested about what were the neural processes

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that underlie music perception.

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Clinicians, on the other hand,

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were observing these phenomenos

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and studying them clinically in research,

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but couldn't say why this behavior,

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why these responses were recoverable,

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you know, that this was possible.

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So Oliver and I had got permission from,

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Back then, he used to be the Bed-Abraham family of health services, now a center-life health

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system to form, with the help of the board of directors, an institute for music and neurologic

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function back in 1993 that we started, but we incorporated in 1995, whose sole purpose

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was to bring the worlds of neuroscience and music therapy together into this area of study.

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you mentioned that back then there wasn't sufficient technology to really study exact

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neurological processes because music is obviously very

complex.

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So would you say that now with the MROFMRI, how much has that technology really affected

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the study of music?

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Sure, you know, it cried a bit.

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The fact that functional imaging at this point can actually be done.

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that the speed at which it's done allows for very specific information to be gathered.

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And because enough of these studies have been done, the artifacts and different things that

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would normally happen in these types of research paradigms, that those can be taken out.

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So the scientists have perfected the way to really look in real time at what's happening.

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The areas that they're able to look at are chemical changes in the brain.

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So some of the work that's been done at McGill University on emotions and feelings related

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to music have been studied and shown neurochemical changes when somebody has a peak emotional

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spirit experience to music.

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There have been other studies that have been able to map out where some of the origins

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to mode the timing.

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Originate which is really, really crucial for understanding how rhythm and pulse drive

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the nervous circuits related to a responsible for moda initiation.

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So you can imagine somebody with Parkinson's disease or somebody with a stroke or somebody

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who has a traumatic brain injury and has trouble moving on their own.

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If their brain can be excited through a pulse of rhythm, and this has been shown through

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neuroimaging, that we have a way of allowing that person to move if the right stimulus

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is providing. There's also some musical preferences and things like that that we may have been

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studying. Also things like neuroplasticity, actual brain changes that happen after prolonged

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engagement in music therapy or music-based technique and something similar to that is

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happening in the Harvard right now.

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in stroke rehabilitation, speech rehabilitation of aphasia,

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where a melodic, the very strict protocol

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for melodic intonation is being used to clients

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who have non-fluent aphasia, who over a period of several,

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you know, so many months by actually showing

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brain changes in their recovery.

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- Wow, okay, so speaking of like different areas

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of the brain, it sounds like music doesn't really affect

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necessarily one region, but many different parts

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because there's like the tone and there's rhythms,

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there's many different aspects.

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So would you say that there's like specific regions

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that are very important like that are affected by it?

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- There are certain localized regions,

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regions they should the person have damage, get lost.

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For example, if somebody has a stroke

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in the right temporal lobe,

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they may lose their perception of pitch or harmony.

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I had a patient who had such a stroke and she sounded like a robot when she was some,

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because she didn't have any tone in her voice.

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On the other side, there would be a localization for the form and style of music that may be

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very specific.

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So a person may not be able to perceive beats or changes

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in patterns of music.

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There are areas of the brain that

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are responsible for the mode of timing aspect of music.

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So just the rhythm--

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not speech of music.

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So just the rhythm of music is processed in one area.

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And then music isn't just the sum of the parts of tone

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and harmony and frequency and rhythm.

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But when all those parts are put together

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and they become a song or a piece of music

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that somebody listens to and then associates

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with a time in their life or a particular person

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or a particular situation or a particular feeling,

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all of those associations also become part of the music.

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And so you're looking at emotional function,

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you're looking at associated function,

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you're looking at short-term memory, long-term memory,

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mode of timing, pitch perception, relationships, people.

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I mean, all these things become attached

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over one's lifetime with music.

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- Right, 'cause we were actually learning

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in psychology class how emotions we need as humans

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actually need emotions to form stronger memories.

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Because when you associate a very strong emotion

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but you remember actually better and over long periods of time.

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So it's interesting that like music,

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which is also connected to motion has kind of a--

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- Is it memory enhancing?

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- Yeah, it's a very strong memory enhancement.

00:15:05.700 --> 00:15:07.060
- It's a very strong memory enhancement.

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- That's really interesting.

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So speaking of like different types of music,

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is there a specific type of music

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that is most beneficial for music therapy?

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Or does it depend?

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- It depends very much.

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In fact, music therapy is profession

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really deals with the fact that

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Music is a very individualized experience and music therapists as professionals are trained

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through academic training and clinical internships and board certification are trained at a very

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high level to be able to analyze how somebody responds to music, how that music is going

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to benefit them and which aspect of music will be the most beneficial.

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It's very hard to really generalize music responses to everyone.

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There's some things we can generalize.

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We can often generalize what type of rhythmic pattern may help somebody move better because

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people are going to train to the very steady beat, but we also know that some people have

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perceptual damage to rhythmic perception.

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And so those people may have to be trained to find the beat again.

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So when a patient comes in and say, "Is there an evaluation of what type of music would

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be best for them?"

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Because I know it's very individualized.

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But how do you actually evaluate what's best for them?

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The first thing we do is find out what their specific situation is.

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Did they have a recent trauma?

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Was it a car accident?

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Did they have a trauma?

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Is it a disease like Parkinson's?

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and something that's progressive like Alzheimer's,

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is in the psychological issue, is in the emotional issue.

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All of those will direct the music therapist

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to ways of engaging that person in music.

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So we can explore where their blocks are,

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where their disability is, and where their ability

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is. Many times a patient who can't do something on their own

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can do it in the context of music.

00:17:13.400 --> 00:17:15.080
For example, a person with Parkinson's

00:17:15.080 --> 00:17:19.280
and having a hard time with balancing and walking

00:17:19.280 --> 00:17:22.560
may work very well when we're using music.

00:17:22.560 --> 00:17:25.400
And so we'll use, depending on what the goals

00:17:25.400 --> 00:17:29.320
and the areas of need are, we'll actually experiment

00:17:29.320 --> 00:17:32.440
with different types of music and sounds and rhythms

00:17:32.440 --> 00:17:36.800
and actually engage the patient in making music with us,

00:17:36.800 --> 00:17:39.120
even if they're not musicians,

00:17:39.120 --> 00:17:44.040
directing them to repeat a rhythm or to interact in a way

00:17:44.040 --> 00:17:46.220
so we could see the full spectrum of what they

00:17:46.220 --> 00:17:48.420
capable of using.

00:17:48.420 --> 00:17:51.180

And you mentioned people with speech problems.

00:17:51.180 --> 00:17:53.660
And I happen to know that you've done quite a bit of research

00:17:53.660 --> 00:17:57.500
recently with patients with non-fluent aphasia.

00:17:57.500 --> 00:18:01.020
So I wanted to ask a little bit more, for more information,

00:18:01.020 --> 00:18:03.180
more in depth in that particular area.

00:18:03.180 --> 00:18:05.220
Because I find that particularly very interesting.

00:18:05.220 --> 00:18:08.180
So first of all, let's just begin with a pretty basic question.

00:18:08.180 --> 00:18:09.660
So what is non-fluent aphasia?

00:18:09.660 --> 00:18:10.180
OK.

00:18:10.180 --> 00:18:17.700
Non-fluentophagia is a type of speech problem that is caused by damage to a certain part

00:18:17.700 --> 00:18:25.220
of the left area of the brain that's referred to as Broca's area.

00:18:25.220 --> 00:18:32.020
People with this particular problem usually can comprehend what's being said to them,

00:18:32.020 --> 00:18:39.660
but they lose the fluency of their ability to say novel phrases.

00:18:39.660 --> 00:18:42.620
They lose the ability to retrieve certain words.

00:18:42.620 --> 00:18:50.100
They are able many times to sing full lyrics to songs,

00:18:50.100 --> 00:18:53.300
even though they can't tell you what they had for breakfast

00:18:53.300 --> 00:18:54.320
or where they live.

00:18:54.320 --> 00:19:01.060
They may be able to give full phrases,

00:19:01.060 --> 00:19:05.340
typical phrases like, oh, how are you?

00:19:05.340 --> 00:19:06.500
How's it going?

00:19:06.500 --> 00:19:09.620
So things that are part of their repertoire,

00:19:09.620 --> 00:19:15.860
they can still speak, but to tell you where they're going this weekend would be very difficult.

00:19:15.860 --> 00:19:20.860
So that's non-fluent aphasia.

00:19:20.860 --> 00:19:26.140
Okay. So it sounds like non-fluent aphasia because of the damage to a broken area, and

00:19:26.140 --> 00:19:28.220
this might be due to stroke or...

00:19:28.220 --> 00:19:31.300
Or traumatic brain injury, but usually stroke.

00:19:31.300 --> 00:19:36.980
Okay. So they're not quite able to form fluent sentences or phrases to express themselves

00:19:36.980 --> 00:19:41.180
as opposed to other types of phasio where perhaps there is like damage to the

00:19:41.180 --> 00:19:47.440
monarchy's area where they can't comprehend. Okay, so for non-fluent

00:19:47.440 --> 00:19:51.940
aphasia patients, so how would you say music helps them? Because I understand

00:19:51.940 --> 00:19:55.620
that since I mean maybe if they've already heard a song they're very

00:19:55.620 --> 00:19:58.900
familiar with the song they're probably still able to sing it and yet they're

00:19:58.900 --> 00:20:03.780
not able to form new sentences. So it's kind of a contrast there. So there's a

00:20:03.780 --> 00:20:10.780
couple of things and we're still researching it because there's some different approaches

00:20:10.780 --> 00:20:18.840
that are being applied to help people with non-fluentifasia. One of the best studied or

00:20:18.840 --> 00:20:25.500
most used approach is something that Helm and Spock

developed many years ago called

00:20:25.500 --> 00:20:37.140
melodic intonation therapy. And that's a specific treatment that uses a two-tone melodic pattern

00:20:37.140 --> 00:20:47.020
up and down that requires the person to tap to the syllables of the phrases they want to

00:20:47.020 --> 00:20:55.140
say. And some current research is showing that engaging somebody in that very specific

00:20:55.140 --> 00:21:02.100
protocol every day for a certain period of time actually helps certain people with

00:21:02.100 --> 00:21:07.760
non-flint, tifasia, and eukaryote. The challenge with all of these approaches is

00:21:07.760 --> 00:21:12.600
that the patient over time has to learn to do this on their own. They have to be

00:21:12.600 --> 00:21:17.600
motivated to do it on their own and they have to be able to internalize what the

00:21:17.600 --> 00:21:24.000
aspects of that technique mean for them. Another approach that we've been using

00:21:24.000 --> 00:21:33.520
for many years and with some success as well, is using pre-learned songs, lyrics,

00:21:33.520 --> 00:21:43.160

to be the jump start or precursor to word retrieval. So for example having somebody

00:21:43.160 --> 00:21:50.820
fill in the blanks to a lyric that they know very well will cause them to have

00:21:50.820 --> 00:21:56.740
to retrieve that word in the moment in a very quick time.

00:21:56.740 --> 00:22:03.580
And by doing so, over time as they get improved in their ability to fill in the blanks very

00:22:03.580 --> 00:22:11.540
quickly, they've also seen that they do improve in other types of word retrieval outside of

00:22:11.540 --> 00:22:13.140
the actual singing.

00:22:13.140 --> 00:22:19.820
So we don't know yet, but hypothesize that there's a priming aspect to singing familiar

00:22:19.820 --> 00:22:25.580
lyrics as a precursor to retrieval. Where those networks are shared and how they inform each

00:22:25.580 --> 00:22:30.780
other, I couldn't tell you right now, but hopefully somebody is going to look at that

00:22:30.780 --> 00:22:35.460
and tell me why it works the way it does. But we know it works. We know that it actually

00:22:35.460 --> 00:22:40.180
helps certain types of people with a faith non-fluentification

improve. Another aspect

00:22:40.180 --> 00:22:45.020
that seems to be very tightly connected and it's something that's also part of the melodic

00:22:45.020 --> 00:22:52.560
the contination protocol is the physical tapping as a self-cute for the speech.

00:22:52.560 --> 00:22:57.980
One of the observations we made and I wrote about was that a person with non-fluid enphasia

00:22:57.980 --> 00:23:08.020
who can't tap, who's lost that motor ability, doesn't recover speech at the same level or

00:23:08.020 --> 00:23:10.660
maybe not at all, as somebody who can tap.

00:23:10.660 --> 00:23:16.080
So it hints to the fact that the modus system, that if the stroke is too close to the modus

00:23:16.080 --> 00:23:22.540
strip and affects the modus strip, that that may be an indication that the effusion is

00:23:22.540 --> 00:23:23.540
more severe.

00:23:23.540 --> 00:23:29.120
And that person, until they can gain that modus timing ability, won't be able to recover

00:23:29.120 --> 00:23:30.120
speech.

00:23:30.120 --> 00:23:36.100

Well, so do you have to know if there's any changes to the brain of people who are undergoing

00:23:36.100 --> 00:23:39.140
music therapy as opposed to patients who aren't?

00:23:39.140 --> 00:23:40.140
Right.

00:23:40.140 --> 00:23:52.140
We haven't done brain images of our patients, but Garth Riechlag in Harvard has been doing brain images of patients undergoing a very rigorous melodic intonation therapy.

00:23:52.140 --> 00:24:08.140
And he's beginning to show, at least in one case and some of the other ones now too, that there's actually increasing fibers and more density in an area of the brain on the right called the accurate fasciculus.

00:24:09.140 --> 00:24:15.540
different from where that person's brain was prior to the treatment. So you see a very thin

00:24:15.540 --> 00:24:24.580
you know area before the treatment and then after so many months of intensive melodic intonation

00:24:24.580 --> 00:24:29.460
therapy you actually see a thickening of that area showing that there was increased fibers

00:24:29.460 --> 00:24:36.660
and connections that were created. So I think Dr. Schluck for the first time is showing very real

00:24:36.660 --> 00:24:42.660
neuroplasticity and brain changes in response to a very specific application.

00:24:42.660 --> 00:24:46.780
Alright so it sounds like the music is obviously physically actually having an

00:24:46.780 --> 00:24:50.580
effect on the brain and so even though the brain you know a lot of people have

00:24:50.580 --> 00:24:56.660
this misconception that you can't generate new neurons but so I've heard

00:24:56.660 --> 00:25:00.980
recently that it's actually not true. It's actually not true and right now

00:25:00.980 --> 00:25:06.980
Research has already identified cells being created in the hippocampus.

00:25:06.980 --> 00:25:11.980
So that's a part of the brain that we know can create new cells.

00:25:11.980 --> 00:25:18.980
What we also know, and this has already been shown many, many times,

00:25:18.980 --> 00:25:26.980
is that a neuron can create and continue to differentiate the number of dendrites

00:25:26.980 --> 00:25:29.780
and connections that has to other cells.

00:25:29.780 --> 00:25:34.180
So even though we may have a certain amount of neurons,

00:25:34.180 --> 00:25:38.180

that the networks and the dendrites

00:25:38.180 --> 00:25:40.220
that now connect other dendrites

00:25:40.220 --> 00:25:42.300
to create the neural networks,

00:25:42.300 --> 00:25:45.900
and those continue to differentiate throughout our lives.

00:25:45.900 --> 00:25:50.060
So every time we learn a skill or recover a skill,

00:25:50.060 --> 00:25:53.660
there's a new set of connections

00:25:53.660 --> 00:25:57.180
that allow that skill to be preserved.

00:25:57.180 --> 00:25:58.500
So if somebody, you can imagine,

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somebody loses a skill because of a brain injury,

00:26:00.900 --> 00:26:02.660
but regains that skill,

00:26:02.660 --> 00:26:04.300
whether they regain it because they're part

00:26:04.300 --> 00:26:07.300
of the brainless skill, many times that's not the case.

00:26:07.300 --> 00:26:10.540
Many times it's the fact that parallel networks

00:26:10.540 --> 00:26:14.460
that also serve similar functions are enhanced

00:26:14.460 --> 00:26:16.220
through this repetitive type of treatment

00:26:16.220 --> 00:26:19.220
or this enhanced therapy of which music is,

00:26:19.220 --> 00:26:22.740
that allows enough neurons to be stimulated

00:26:22.740 --> 00:26:26.900
to cause a change to happen or recovery to happen.

00:26:26.900 --> 00:26:28.700
- So what is the actual success rate?

00:26:28.700 --> 00:26:30.660
Like, I mean, not, you don't have to be very specific

00:26:30.660 --> 00:26:34.380
about this, but in general, how successful are patients,

00:26:34.380 --> 00:26:35.620
perhaps with non-phoenix patients,

00:26:35.620 --> 00:26:37.620
or just with music that's very original?

00:26:37.620 --> 00:26:41.060
- In general, again, it depends on the population,

00:26:41.060 --> 00:26:42.540
but I could tell you that for people

00:26:42.540 --> 00:26:45.300
with Parkinson's disease, anyone,

00:26:45.300 --> 00:26:47.660
anyone with Parkinson's who's found

00:26:47.660 --> 00:26:51.700
and been able to use rhythm and music to help them move,

00:26:52.700 --> 00:26:57.120
Swib, use it consistently and very effectively

00:26:57.120 --> 00:26:57.880
throughout their lives.

00:26:57.880 --> 00:27:00.920
And some of them wonder why their physical therapists

00:27:00.920 --> 00:27:03.800
or doctors never told them how easy it was

00:27:03.800 --> 00:27:05.800
to be able to use music so effectively

00:27:05.800 --> 00:27:08.000
to help them in their daily life.

00:27:08.000 --> 00:27:11.680
I actually teach, I'm part of a teaching faculty

00:27:11.680 --> 00:27:13.720
for the National Parkinson's Foundation,

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specifically for that reason,

00:27:15.000 --> 00:27:17.000
because music therapy is so effective

00:27:17.000 --> 00:27:19.520
and should be basic treatment,

00:27:19.520 --> 00:27:26.400
or available to anybody with Parkinson's to be able to use effectively.

00:27:26.400 --> 00:27:33.820
In the areas of speech, it's still something being researched and developed, although people

00:27:33.820 --> 00:27:41.960
do recover some level of communication ability through music therapy and through melodic

00:27:41.960 --> 00:27:42.960
intonation therapy.

00:27:42.960 --> 00:27:50.960
I think the challenge is that those types of treatments need to be done every day and

00:27:50.960 --> 00:27:56.000
several times a day in order to regenerate and recover function and most people just

00:27:56.000 --> 00:28:01.320
don't have the motivation or the time or the resources to be able to be in such intensive

00:28:01.320 --> 00:28:08.080
treatment for so long but if they were there is a high potential for them to improve.

00:28:08.080 --> 00:28:13.640
So it sounds like, although it varies from case to case, it definitely sounds like there

00:28:13.640 --> 00:28:15.600
is a large impact that music therapy is having.

00:28:15.600 --> 00:28:16.600
Oh, absolutely.

00:28:16.600 --> 00:28:17.600
Absolutely.

00:28:17.600 --> 00:28:18.600
Right.

00:28:18.600 --> 00:28:23.920
So it sounds like because music therapy can be applied to such a wide variety of disorders,

00:28:23.920 --> 00:28:28.080
but I'm sure there are still skeptics out there who are very skeptical about music,

00:28:28.080 --> 00:28:30.800
how could that possibly affect our brains?

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And it's almost like a political issue of should music therapy be covered in healthcare,

00:28:36.640 --> 00:28:38.200
which is a very sticky issue.

00:28:38.200 --> 00:28:39.040
- Oh, it's--

00:28:39.040 --> 00:28:41.040
- I'm wondering if you have anything to say about that.

00:28:41.040 --> 00:28:45.080
- It's really a struggle, especially in New York state.

00:28:45.080 --> 00:28:47.480
I've been working in the field for 34 years.

00:28:47.480 --> 00:28:51.880
In subacute rehabilitation and long-term care

00:28:51.880 --> 00:28:53.560
music therapy is not covered.

00:28:53.560 --> 00:28:58.360
In a lot of private pay insurance in New York,

00:28:58.360 --> 00:29:00.480
music therapy is not covered.

00:29:00.480 --> 00:29:02.760
It's covered sometimes under psychotherapy

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in Medicare Part B, impartial hospitalization.

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In other states, it is covered.

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In, sometimes it's covered on the educational programs,

00:29:15.180 --> 00:29:19.640
especially for learning to delay children,

00:29:19.640 --> 00:29:21.840
but not on the level that it should be,

00:29:21.840 --> 00:29:24.320
but it's not just music therapy,

00:29:24.320 --> 00:29:28.240
it's so many other treatments as well

00:29:28.240 --> 00:29:29.960
that have been proven over the years

00:29:29.960 --> 00:29:32.200
are also being reduced.

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I was just talking to somebody today who's speech therapy was kind of after two sessions

00:29:36.720 --> 00:29:42.680
because the person didn't show potential for improvement.

00:29:42.680 --> 00:29:49.400
So one of the things we're hoping to do is to be able to show that music therapy can

00:29:49.400 --> 00:29:54.160
actually address some of those onto each patient so that those traditional therapies can be

00:29:54.160 --> 00:29:55.660
more effective.

00:29:55.660 --> 00:29:59.240
And I think partnering, and we've been doing that here for many, many years, partnering

00:29:59.240 --> 00:30:04.640
with occupational therapy, with physical therapy, with speech therapy, and sharing how the combination

00:30:04.640 --> 00:30:10.320
of music therapy along with traditional therapies can actually reach those sort of borderline

00:30:10.320 --> 00:30:16.320
recovery people and really help them recover, which would have a great impact on healthcare.

00:30:16.320 --> 00:30:23.760
But you know, it's hard when you're talking about the arts, when the arts and when society

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or not society because people value the arts in general,

00:30:28.360 --> 00:30:31.720
but people who have budgetary constraints

00:30:31.720 --> 00:30:33.520
when they talk about what's essential

00:30:33.520 --> 00:30:35.600
and what's non-essential,

00:30:35.600 --> 00:30:37.640
they usually cut out the arts first.

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And that's the truth, but be it music therapy

00:30:39.880 --> 00:30:43.880
or music education, that's usually the case.

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However, however, neuroscience in the past couple of years

00:30:49.040 --> 00:30:57.840
is showing that children who are exposed to music and the arts actually have enriched

00:30:57.840 --> 00:31:04.080
neural networks and have a better capacity for complex thinking and also a better capacity

00:31:04.080 --> 00:31:10.720
for social integration and social awareness and interpersonal awareness.

00:31:10.720 --> 00:31:17.240
So if teachers think about the things that they have trouble teaching a child and if they

00:31:17.240 --> 00:31:23.960
They were aware that music and art and engagement in those creative processes actually instilled

00:31:23.960 --> 00:31:27.000
the right behaviors in children.

00:31:27.000 --> 00:31:31.480
They may not be as ready to cut the programs.

00:31:31.480 --> 00:31:37.920
If they realize down the line in the future what the impact of

those early programs will

00:31:37.920 --> 00:31:47.240
have on the mental and mental, psychological and intellectual state of the people.

00:31:47.240 --> 00:31:55.280
And you mentioned yourself that music therapies are very broad profession, very small compared

00:31:55.280 --> 00:31:57.640
to other professions, but very broad.

00:31:57.640 --> 00:32:02.400
And because of that, the general public doesn't get to experience it on a regular basis.

00:32:02.400 --> 00:32:08.940
The only time they may experience it is when all the traditional therapies they've tried

00:32:08.940 --> 00:32:11.940
are working and then they start searching.

00:32:11.940 --> 00:32:13.820
What else is there for me?

00:32:13.820 --> 00:32:17.860
And then they find our website, they find the Music Therapy Association.

00:32:17.860 --> 00:32:22.460
Or they hear about it and they see it in the news and say, "Maybe that can help me."

00:32:22.460 --> 00:32:26.220
And then they come in and then they experience it and say, "This is very important.

00:32:26.220 --> 00:32:27.860

I want more of this."

00:32:27.860 --> 00:32:37.500
So it's really about education, exposure, and informing other therapists, other professions

00:32:37.500 --> 00:32:42.220
about the importance of music therapy so they can understand and be able to refer their

00:32:42.220 --> 00:32:43.220
clients.

00:32:43.220 --> 00:32:49.380
I think down the line insurance companies just as people improve through the combination

00:32:49.380 --> 00:32:59.380
of music therapy with other treatments will be able to get some recognition on the reimbursement.

00:32:59.380 --> 00:33:03.380
Yeah, I mean, definitely a difficult issue to deal with.

00:33:03.380 --> 00:33:06.380
But what would you say the future of your music therapy is?

00:33:06.380 --> 00:33:08.380
From here on out, we've made so much progress.

00:33:08.380 --> 00:33:10.380
Yes, what else is it going to do?

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I think it's very positive.

00:33:15.380 --> 00:33:20.380
When I started in the field, there were opportunities for music therapists, but basically you had

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to create your own job, because you had to be very entrepreneurial and be able to go into

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a new place and create a program.

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I think now what's changed quite a bit and what's very exciting is that young people

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in high school are hearing about the field of music therapy, are encouraged to go into

00:33:39.300 --> 00:33:40.300
the field.

00:33:40.300 --> 00:33:43.260
So I've seen a real influx of the number of people entering

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music therapy and getting certified.

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But also the opportunities in behavioral health

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in hospitals, in pediatric medicine,

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have increased quite a bit.

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The most hospitals that have those programs on site

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will look to hire a music therapist

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to work in those programs as part of their team.

00:34:05.540 --> 00:34:07.780
So that's very encouraging.

00:34:07.780 --> 00:34:11.060
in the areas of neuro rehabilitation,

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Medicaid, certain types of waivers,

00:34:13.940 --> 00:34:15.900
Medicaid waivers, Medicaid waivers,

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can be applied for music therapy

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to be part of the rehab program

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if a person's in intensive rehabilitation

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or if they're in some kind of community type

00:34:26.980 --> 00:34:28.420
rehabilitation program.

00:34:28.420 --> 00:34:31.220
So that's very positive and that's increased tremendously

00:34:31.220 --> 00:34:33.500
in the past five years.

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So I think the future is actually incredibly good.

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whether there's reimbursement or not,

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I think the interest in having the music therapist

00:34:41.220 --> 00:34:45.460
on staff in large facilities is increasing.

00:34:45.460 --> 00:34:46.940
- Oh, so it sounds like, I mean,

00:34:46.940 --> 00:34:49.300
this is definitely not the end, no we're near the end.

00:34:49.300 --> 00:34:50.540
- No, no, it's gonna, and in fact,

00:34:50.540 --> 00:34:52.980
the science continues to inform us

00:34:52.980 --> 00:34:54.820
about how pervasive music is

00:34:54.820 --> 00:34:58.100
and how powerful the elements of music are

00:34:58.100 --> 00:35:01.820
to drive some of these basic brain functions.

00:35:01.820 --> 00:35:02.660
The more,

00:35:06.460 --> 00:35:10.940
The more interested scientists are going to be to understand how it works,

00:35:10.940 --> 00:35:16.020
the more educated music therapists are going to become to how it works,

00:35:16.020 --> 00:35:25.820
and the more ready government and other officials are going to be to support it and to help it grow.

00:35:25.820 --> 00:35:32.340
After the interview, Dr. Tomeino informed me that many of her therapy patients were putting on a musical performance,

00:35:32.340 --> 00:35:36.100
and I was fortunate enough to be able to get a clip of their singing.

00:35:36.100 --> 00:35:40.100
Their show is a testament to the power of music in our lives.

00:35:40.100 --> 00:35:44.100
We just do this for so please, oh come!

00:35:44.100 --> 00:35:49.100
Oh ye thankful people come and let's sing with enthusiasm everyone.

00:35:49.100 --> 00:35:51.100
Let's sing with enthusiasm.

00:35:51.100 --> 00:35:55.100
This is the season for Thanksgiving. It's coming, it's coming.

00:35:55.100 --> 00:35:56.100
Amen!

00:35:56.100 --> 00:35:58.100
And thank you, Shabdu!

00:35:58.100 --> 00:35:59.100
Are you ready?

00:35:59.100 --> 00:36:00.100
Yes!

00:36:00.100 --> 00:36:02.100
Okay, go.

00:36:02.100 --> 00:36:24.100

[Music]

00:36:24.100 --> 00:36:29.060
This has been WIG, What is Global Health? The podcast of the Journal of Global Health

00:36:29.060 --> 00:36:34.340
with Dr. Consetta Tumano of the Central Light Health System here in New York City.

00:36:34.340 --> 00:36:37.300
Many thanks to our guest, Dr. Tumano.

00:36:37.300 --> 00:36:42.060
Check out more WIG podcasts from our three podcast series on Music, Medicine, and the

00:36:42.060 --> 00:36:49.900
Brain and find us online at ghjournal.org/wigh or on iTunes.

00:36:49.900 --> 00:36:59.900
[BLANK_AUDIO]