Rep. Bill Pascrell: We learn how our military is caring for our wounded service vet, go to one of these hospitals in your area once in a while. See how these guys and gals who defended us and we ignore them trying to get back into the swing of things. Just look. Listen. They don't need your pity. They don't need my pity. They need your encouragement. They need resources.

[music]

Dr. Scott Livingston: Hello, and welcome to the TBI family, a podcast for caregivers of service members and veterans who've experienced traumatic brain injuries. This program is produced by the Defense and Veterans Brain Injury Center, otherwise known as DVBIC. I'm your host, Dr. Scott Livingston. That person you heard talking at the top of the podcast was U.S. Congressman Bill Pascrell of New Jersey. Congressman Pascrell is co-chairman of the House's Brain Injury Task Force, which recently hosted Brain Injury Awareness Day on Capitol Hill. This is an event that's held annually during Brain Injury Awareness Month to bring advocates, researchers, caregivers, and those who've been affected by traumatic brain injury together to share information about research, programs, and resources.

What you heard at the beginning was Congressman Pascrell speaking during the panel at the end of the day. Here's what most of the day sounded like.

[crowd noise]

The event was held in a large room at the Rayburn House Office Building that despite its size, was packed with people standing elbow to elbow. Congressman Pascrell told us it wasn't always this way.

Pascrell: Well, we started out in a phone booth some years ago. Now we need a bigger place than this so we're going in the right direction educating people as to what is necessary. So we're very proud. We're proud of our soldiers that put their lives on the line. We owe it to them.

Livingston: Pascrell also wanted us to pass along a message to you, the caregivers of service members and veterans dealing with TBI.

Pascrell: Keep fighting on because we're going to do anything we can to help you do your job.

Livingston: Organizations of all kinds attended the event: government, non-profit, and commercial, as well as individuals with their own TBI stories to tell. The two stories we'll tell today sprang from our talking to people at the event. First, our producer, Terry Welch, looks into the issues of driving after a TBI.

Terry Welch: If you're a caregiver of someone with a TBI you probably already know this, but concussions can alter a person's ability to perform certain functions.

Dr. Michael Roy: One of the things that gets impacted through probably a variety of mechanisms is cognitive function, executive function, and other aspects that impact daily life; ability to think through things and so forth. And driving is actually a pretty complex task that a lot of us kind of take for granted. But there are a lot of multitasking processes that go on just to move your car from point A to point B going from home to work and back again.
**Welch:** That's Dr. Michael Roy, a professor at the Uniformed Services University of the Health Sciences, who is also one of the researchers working on a [inaudible] study on driving and TBI called NeuroDRIVE. He said the problems that those who have sustained a TBI can have with multitasking have shown up time and time again in research.

**Roy:** We've seen that across a number of studies, when we ask people to do something that involves multitasking, those who have TBI and especially those who have TBI plus PTSD, that they struggle more with it. They can maybe handle kind of one basic task of mathematical computations, for example. They do okay with that. But you ask them to do mathematical computations and navigate through an environment, whether it's a driving simulator or walking or running through a virtual environment, that's more difficult and that's where you tend to see differentiation.

**Welch:** Sharon Murphy-Potts is a rehabilitation nurse who attended Brain Injury Awareness Day on Capitol Hill where we spoke to her about other ways driving can be impacted by TBIs.

**Sharon Murphy-Potts:** Well, a brain injury can result in many deficits which could impair someone's ability to drive safely including visual/perceptual issues, decreased attention and concentration, impaired strength and coordination. It can impair reaction time, information processing speed. There may be dizziness and vestibular issues as well as problem-solving and judgment issues, and topographical disorientation, which is getting lost due to right hemisphere issues.

**Welch:** In many states, doctors are required to report traumatic brain injuries that could cause problems with driving. Murphy-Potts said, "What constitutes a problematic TBI is really up to the doctor."

**Murphy-Potts:** It could be a mild injury. If someone has had a seizure, then they automatically would have their driver's license suspended. But it's really a doctor's judgment. Certainly, if there's a severe injury, driver's license would be suspended at that point.

**Welch:** Murphy-Potts said that if returning to driving is the goal of someone with a TBI that should be discussed with medical professionals.

**Murphy-Potts:** Typically they may be receiving treatment for their brain injury, and oftentimes the treating team, if it's a patient's goal, they would be the appropriate folks to determine the readiness to pursue driving. Often it's OT, or the occupational therapist, or a neuropsychologist. They're often key in this role as they assess the physical, functional, and cognitive skills. Sometimes an OT will rule out driving due to visual issues or processing speed and reaction time and just let the individual know they're not quite ready to pursue that at that time. An oversight can also assess concentration, divided attention or distractibility, and judgment as well as visual perception.

**Welch:** If a driver has been flagged in the past for having sustained a TBI, and is then recommended by his or her provider as ready to apply for a new license, most states have processes to regain one's license.

**Murphy-Potts:** If ready, the client is referred to an adapted driver evaluation program. The first step is tests of reaction time. Also included are paper and pencil tests about driving regulations and decision making. Next an on-the-road test in a dual controlled vehicle to assess real life skills, including other distracting situations such as ability to follow directions and have a simultaneous task to attention.

**Welch:** According to Dr. Roy, if lingering concentration and multitasking issues remain, caregivers and other family members can help the care recipient drive more safely by providing assistance that allows the driver to focus and creating a less distracting atmosphere inside the vehicle.

**Roy:** Turning off the radio, same as you might do when your teen is driving for the first time. Making sure it's quiet, that you're really giving them some guidance and encouraging them if they're driving on their own, too, to avoid distractions. Maybe provide them with more direction literally. "Hey, you're going to take a left up here or right," that kind of thing. So just not zoning out or reading emails on your, or Facebook on your cell phone. But actually really being there with them and making sure that you're paying attention and providing them with verbal queues and so forth that may make it easier for them. I think that makes good sense.
Welch: Roy added that for recent concussions, caregivers could also find information about when someone should return to driving in DVBIC's progressive return to activity clinical recommendation suite. Also, the neuro drive study he works on is aimed at using driving simulators to help gauge which people might have the most problems with driving after a TBI. The goal is to take some of the guesswork out of getting people back behind the wheel in the future.

Roy: It would be nice if our results show that this is really a good way of differentiating and we can identify when somebody is ready to be driving that vehicle again. [music] As Terry and Dr. Roy mentioned, driving is included in DVBIC's Progressive Return to Activity information, which describes the stages of returning to normal activity after a TBI. We'll link to it in the description of this podcast, but you can find it and a whole bunch more information on our website, dvbic.dcoe.mil.

[music]

Livingston: Before we move on to the next story, we wanted to let you know that the Office of Warrior Care Policy has just released their 2017 edition of the Military Caregiver Support Directory. This directory contains information on a variety of caregiver issues ranging from advocacy and benefits information, career transitions and employment caregiver support through suicide prevention, women's veterans issues, and much more. The Military Caregiver Support Guide is meant to be a resource for military, DoD, VA, and other non-DoD organizations that have information and resources available for caregivers on a variety of topics. We'll put a link to it in the description of this podcast.

[music]

Our final story today is a perspective we don't normally hear on this podcast, a person who sustained a traumatic brain injury. Cristabelle Braden was 14 when she sustained her brain injury. We met her at Brain Injury Awareness Day when she handed us her CD. She's talked to us about her injury, the organization she founded, and how one of her songs has become a special message to caregivers.

[music]

Cristabelle Braden: My name's Cristabelle Braden. I'm a singer, songwriter, brain injury survivor, and the founder of Hope After Head Injury. Hope After Head Injury's an organization for brain injury hope and support. We focus on the emotional side of brain injury. Most of the outreach is through social media with the online support groups, just reaching survivors where they're at, reminding survivors they're not alone. I never intended to start an organization [laughter], but I started this social media page and it just started to grow. I post video blogs and I sing and I speak at brain injury conferences, so [laughter]. My new CD for brain injury awareness is Hope Survives and all the songs are written about life with a brain injury. And one of those songs is called One of Those Days. It's one of my favorite songs on the CD and it's about how it's okay to have bad days. It's okay to cry. It's okay to struggle.

[music]

I think caregivers are incredible. My parents have been fighting for me every step. And so the best thing I say, I just continue to work and fight for your survivor. Because that's the only reason I'm even here is because of my mom. And so I think brain injury caregivers, just remember that from a survivor perspective sometimes when we say things don't take it personally because my brain just might not be working. And if I'm super tired, I might say something I don't mean because I have emotional problems with frontal lobe. And so just remember that your survivor loves you so much and is so grateful for you. And on the bad days remember that sometimes it's just the brain but their heart is there and they love you very much.

[music]

It's been a journey. It's been nine years. At first, the doctors said I'd never graduate high school and now I have a college degree. So I share that. That's why my organization is called Hope After Head Injury and my CD is called Hope Survives. Because after a brain injury-- every brain injury is different but there's always hope and there's always reason to keep going. And so your survivor can do it. We can get through it. We might have to do things differently
but we can do it, so.

[music]

Sometimes people will say I made a full recovery and that's not true. I have a disability I'll live with the rest of my life. I can't drive. I lack spatial awareness. I deal with a lot of daily symptoms but I view it as improvement instead of recovery because brain injury survivors are always improving every day, every year. We're always continuing to get better. There's no timeline on healing. The thing we did is my mom said we should focus on what you can do, not on what you can't do. So that's why I started focusing on music and I just started writing songs after the brain injury. Never wrote a song beforehand. Now nine years later, I'm a nationally touring singer-songwriter and I sing songs about brain injury to help bring other people help. I'm grateful to be able to do it. I set up my schedule to accommodate for the brain injury, so I schedule in rest times and one activity per day.

[music]

The caregiver is the most important part of the recovery I think because as survivors, we become dependent on those around us. Like I can't really go anywhere by myself because I get too confused easily or learn the limits and trust your instincts, and if they're too tired, they might not be able to do it and that's okay. Like I said before, just one of those days. It's a bad day. And that's okay to have a bad day. Doesn't mean it's a bad life.

[music]

Livingston: You can find a link to Cristabelle's organization, Hope After Head Injury, in the description of this podcast.

[music]

As always, if you have any questions about this podcast, or DVBIC products or programs, or are interested in telling us your story, please feel free to email us at info@dvbic.org. On the next episode, we'll discuss how to talk to kids about traumatic brain injuries.

[music]

The TBI Family is produced and edited by Terry Welch, and is hosted by me, Dr. Scott Livingston. It is a product of the Defense and Veterans Brain Injury Center, commanded by Army Colonel Geoffrey Grammer, and the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, commanded by Navy Captain Mike Colston. Thanks this week to the House Brain Injury Task Force, including Congressman Bill Pascrell and his co-chairman, Congressman Tom Rooney of Florida. Thanks also to the Uniformed Services University of the Health Sciences, the Association of Rehabilitation Nurses, ReMed, and Hope After Head Injury. As always, thank you for listening.