

Life Interrupted: Young People and Recovery From Strokes
By Breann McKeon

Submitted to the Journalism Board of Study
School of Humanities

In partial fulfillment of the requirements
For the degree of Bachelor of Arts

Purchase College – State University of New York

First Reader: Prof. Andrew Salomon

Second Reader: Prof. Virginia Breen

PROLOGUE: Something Really Wrong

Gina Harrison woke up at 6 a.m. on Sunday, April 10, 2016, as she would any day

for work. She rose out of bed and headed into the shower. The familiarity of the warm water that wakes her up every morning was no longer soothing. “I started getting extremely dizzy and I had to grab onto something,” Harrison said, “because I thought I was going to fall.”

The dizziness finally stopped, but instead of feeling relief she began experiencing a “very, very sharp” pain on the left side of her head.

The pain in her head finally stopped, but then her entire right side began to feel numb.

Blaming these intense, unknown symptoms on nothing more than the high temperature of her shower, Harrison continued to get ready to leave for work, feeling weak and off balance as she dressed herself.

By 7:15 a.m. she left her home in Brooklyn to commute to her job as an assistant project manager at a construction company, G Builders LLC, in Manhattan. She spent the first few stops on her subway ride frantically looking up her symptoms online on her phone, in disbelief about

some of the results that popped up. “What could actually be wrong with me?” she recalls asking herself. “There’s no way this is happening.”

Unsettled by the information, she called her doctor, who happens to be a good friend of her father, for reassurance. “You’re going to be OK,” he said. “But you need to get to get off the train and go to the hospital.” Harrison’s nerves jangled as she quickly got off the train at the Bay Parkway stop in Brooklyn. She called her wife, Jodi, notifying her that she needed to be taken to the hospital right away.

Harrison arrived at the emergency room at Maimonides Medical Center in Borough Park. After being asked a few questions by the doctor, she was then quickly brought to the intensive care unit. A team of nurses and doctors rushed to undress her and take her jewelry off—they needed to get an MRI. Harrison recalls still having a massive headache throughout the process.

Once the MRI was completed, she received the diagnosis that she, along with the doctors, did not originally anticipate could be true. “They told me I had a TIA, which is technically a stroke, but a lesser stroke,” Harrison said. “Less severe because I didn’t have as much damage as some other people may have.”

A transient ischemic attack, otherwise known as a mini stroke, occurs when there is a temporary lack of oxygen and adequate blood flow to the brain. Although victims of a TIA experience the same neurological symptoms of a typical stroke, these symptoms tend to go away much more quickly.

Harrison was told that she would remain in the hospital for a few days so that the doctors could monitor her overnight and run several tests to determine the cause. Her symptoms started to subside over the course of the day. She began regaining the feeling on her right side, and her vision, which had blurred in the hours leading up to her diagnosis, began to clear up.

Within the next few days of running tests, the doctors managed to find a patent foramen ovale, which is a hole found in the walls of tissue in the heart. This PFO, combined with Harrison's other risk factors, were what her doctors believed caused her stroke. She was a smoker, overweight, and taking oral-contraceptive pills to prevent the growth of ovarian cysts. While she was fortunate that her physical symptoms did not linger beyond the day of her stroke, Harrison was not prepared for the mental and emotional battle she would immediately face after her release from the hospital.

“As far as my health, it is something I'm going to be worried about for the rest of my life,” Harrison said, “Only because it can happen to me again.”

The burden of fearing for her health would be something she would experience for many, many years to come—being that Harrison had a stroke when she was only 25 years old.

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Although victims such as Harrison did not initially understand how they could have a stroke at such a young age, they are unfortunately a part of a growing cohort. In September of 2018, one of the world's oldest medical journals, *The Lancet*, published a report stating that the rise of stroke in young adults aged between 18 and 50 has increased substantially. According to the article, “Worldwide more than 2 million young adults have an ischemic stroke yearly.” An increase of up to 40 percent has been reported over the past few decades, the authors stated.

The occurrence of stroke is much more common in the elderly, and caused by traditional risk factors such as age, hypertension and diabetes. The causes of strokes in younger adults are far more vast and diverse. Dr. Sanskriti Mishra, a vascular neurologist at Maimonides Medical Center, explains that the leading causes of strokes in young adults can range from genetic diseases and congenital heart diseases to lifestyle choices such as alcoholism and drug use. “With drugs like cocaine and amphetamines, we do know that they cause increased blood pressure, which can sometimes lead to [heart] arrhythmia such as atrial fibrillation,” said Mishra. “These things can directly cause strokes.”

Along with these drugs, more commonly used substances such as marijuana have been recently described to have an increasingly larger role in the causation of strokes in the youth. In February of 2019, the American Heart Association published an article describing an analysis of research collected from more than 2,220 young stroke victims who live in Cincinnati and northern Kentucky over the past 20 years. “While alcohol and cigarette use in the stroke victims remained stable over the two-decade study period,” the article states, “drug use rose dramatically, from 4.4 percent in in 1993-94 to 30.3 percent in 2015.”

Aside from these causes, common physical maneuvers also pose a risk of occurrence of stroke in young adults. “We see a lot of patients go to chiropractors and get neck massages, so any extensive manipulation of the neck can cause these dissections,” says Mishra. “The dissection itself can cause a stroke, so that’s probably one of the most common causes of stroke in these patients.”

She also describes that because these risk factors in the youth are so drastically different from those in the elderly, they need to be treated and approached differently from geriatric

patients. The epidemiology and treatment of strokes in young adults are some of the many differences that separate them from strokes in the elderly.

The stroke itself represents only the beginning of the terror for young people. There is also the aftermath, which can include paralysis, speech impairment, and loss of motor functions. In her time at Maimonides, Mishra describes several scenarios where her younger stroke patients have had to miss college classes or take time off from their full-time jobs. “Unfortunately a lot of my patients have lost jobs because of that, because they’re so debilitated that they obviously can’t go back,” says Mishra.

However, she also describes how most younger patients tend to recover from physical symptoms of the stroke much more quickly. For example, Harrison’s numbness and blurred vision corrected within the first 24 hours after the stroke. But this does not in any way indicate a full recovery within these patients, as the mental aftermath of the stroke has proved to be more severe than the physical.

“I think it might cause a bit more of an emotional burden on them as well, because they are used to being highly functional, going out and doing everything on their own, and now they cannot do that,” says Mishra. “A lot of them, unfortunately, end up having no social life, and that does predispose them to depression and anxiety.”

Patients such as Harrison described developing an overwhelming amount of anxiety that they had never experienced before they had a stroke, where anything from a cough or chest pain was enough to send them, in a panic, to the emergency room. “I went back and forth to the emergency room and doctors didn’t find anything wrong with me,” said Harrison. “I would go back home, and the next day I would go back again and it was just a cycle, because I was really

scared that something was going to happen and that something was really, really wrong with me.”

Any stroke patient, regardless of age, faces a higher risk of stroke happening again. In order to fully recover from the physical and mental effects of their stroke, and to best prevent another from occurring, younger victims must take many steps to change their lifestyles to improve their health.

This process may be easier for young patients who have been able to receive a diagnosis and understand the cause of their stroke. But because doctors are uncertain about the causes of a large percentage of strokes in the young, many of these victims remain in the dark, desperately seeking answers. While research in previous decades began suggesting that strokes in the young were occurring more frequently, only research within the past few years indicates the urgent severity needed to improve prevention.

CHAPTER 1: A Growing Trend

The Journal of American Medicine Association published a study in May 1995 that

suggested that although they were uncommon, strokes in young adults were not impossible.

“Although increasing age is the most important factor that forecasts ischemic stroke,” the article states, “stroke is not rare among adolescents and young adults.”

The study contained within the article looked at stroke patients within a medical registry from the University of Iowa Hospitals and Clinics throughout a 15-year period, which began in 1977. Within this registry were 329 patients whose ages ranged from 15 to 45. The median age of the male patients was 37, and the median age of the female patients was 35. Collectively, there were 21 patients (about 6.4 percent of the total) whose ages ranged between 15-20, which was the youngest age group included in the study.

This research was among the first of its kind to acknowledge that stroke in young adults is not rare, and to suggest that the causes of stroke among young adults are far more diverse than those of the elderly. The study detected 60 different potential causes of strokes in young adults. Medical conditions such as arterial dissection (the tearing of an artery in the neck that can lead to blood clots, which prevent oxygen flow to the brain) and moyamoya syndrome (a blockage in the carotid artery which reduces blood flow to the brain) were listed as the leading causes amongst the subjects; trailing behind was drug and alcohol abuse.

According to the article, “Alcohol use in the period immediately preceding stroke was reported by 14 patients; other drugs used included amphetamines (seven patients), cocaine (six patients), phenylpropanolamine hydrochloride (one patient) and heroin (one patient.) Some patients had used more than one drug.”

This article was groundbreaking at the time, because, to the knowledge of the authors, it was the “largest reported series of young adults with ischemic stroke investigated by a group of physicians at a single medical center.”

In July 1996, The Journal of the American Medical Association (JAMA) published another article highlighting a study conducted by researchers that focused on finding the cause of stroke in young adults. The study included 296 cases of ischemic stroke among black and white adults aged from 18 to 44 in Maryland and counties from the Baltimore-Washington Cooperative Young Stroke Study, along with 1,220 young stroke victims from the Maryland Behavioral Risk Factor Survey, to serve as a control group.

The study determined that risk factors such as cigarette smoking, diabetes and hypertension were important in a “biracial young adult population.” In conclusion, the authors wrote, “this study further supports the need for public health campaigns to lower the prevalence of cigarette smoking in young adults.”

Twenty years later, the Journal of the American Heart Association published an article in May 2016 that analyzed data collected from the U.S. Nationwide Inpatient Sample. While this data illustrates that the overall hospitalization rate for ischemic strokes decreased by 18.4 percent between 2000-2010, trends among different age groups proved to be “divergent.” According to the article, the sample indicated a 28.5 decrease in the hospitalization of stroke patients ranging from 65 to 84 years old. However, this information contrasted with a 43.8 increase in individuals ages 25 to 44 years old.

Along with this, the article acknowledges several reasons why the indication of stroke cases has improved over time. According to the authors, “The increasing use of brain magnetic resonance imagining could have led to better stroke diagnosis, especially in patients presenting with minor or rapidly regressive symptoms.”

This article mentioned how trends could reflect changes in the burden of classical vascular risk factors in the young, writing that “the prevalence of type 2 diabetes, hypercholesterolemia, and obesity have been observed in high-income countries.” Additionally, the authors also mention how cigarette and alcohol usage among young people has increased over time.

While the incidents of strokes in young adults are undoubtedly increasing rapidly, the authors fear this trend is buried among the massive burden of the occurrence of stroke in the elderly. In regard to the socioeconomic impact of having a stroke as a young adult, the call for awareness is more necessary than ever.

“Any change in the incidence of ischemic stroke in young adults would have only a limited impact on the global incidence of stroke in the elderly,” the article states. “There is an urgent need to improve primary vascular prevention of ischemic stroke in young adults.”

CHAPTER 2: Wake-Up Call

Patients such as Gina Harrison increased their risk of stroke occurrence by smoking

cigarettes, being overweight and taking oral contraceptives. But some congenital heart conditions, such as a patent foramen ovale (basically, a hole in the heart), are present from birth. “They check for holes in your heart when you’re a baby, and when you’re born with it as you grow older it closes,” Harrison says. “But for some babies it doesn’t, and I happened to be one of them.”

Many patent foramen ovals often do not require treatment as they do not cause any symptoms, but strokes are among the most significant complications a PFO can cause. In the event this condition causes a stroke, most doctors seek to surgically repair these PFO’s in order to reduce the risk of a reoccurring stroke. In an article published by the American Heart Association, the authors state, “Nothing will close it except open-heart surgery or a closure device placed by a catheter threaded from the groin through the veins to the heart.”

According to Dr. Mishra, one of the most significant causes of strokes in the young is drug use. “We know that there is at least a couple of drugs like cocaine and amphetamines,”

Mishra said. “We do know that they do cause increased blood pressure; sometimes they can lead to arrhythmia such as atrial-fibrillation. These things can directly cause stroke.”

Additionally, IV drug users increase their risk of developing infective endocarditis, which is an infection of the valves in the heart. “Drug use is something that we really, really need more awareness of,” Mishra said. “There are these new there are recreational drugs that have been known to directly cause strokes.” Aside from cocaine and amphetamines, other recreational drugs that have played a role in the cause of strokes include synthetic marijuana, such as K2 or spice.

Understanding how her combination of risk factors caused a stroke, Harrison has taken several drastic steps to reduce her chances of another. “I go to the gym at least three to four times a week and I exercise. It makes me feel a lot better. I get out a lot of stress,” she said. “What I did was eliminate the risk factors, which was the smoking, I’m not on birth control anymore, and I’m taking care of myself, so making the changes definitely makes a huge difference.”

Despite the negative effects Harrison suffered from her stroke, she can positively say its occurrence called attention to the need to improve her health. “In a way, as scary and dangerous as it was, the stroke woke me up to take better care of myself,” she said, “because it can happen to anyone, and it can happen to me again.”

CHAPTER 3: ‘Nothing Showing Anything’

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hen patients such as Harrison are alerted to one or more causes for their

strokes, they can make the necessary lifestyle adjustments to reduce their risk of recurrence. But for many young victims whose doctors are unable to detect a cause, their anxieties remain, and sometimes grow.

According to Mishra, 25 to 40 percent of the strokes in people younger than 45 are cryptogenic, which means they do not have a known cause. “Unfortunately a lot of these cases have unknown etiology, so we don’t know how it happened,” said Dr. Mishra. “It’s difficult to pinpoint the causes, so it is difficult to tell people exactly how or what to look out for.”

This was the case for Frances Vozzo, 43, who had a cryptogenic stroke two years ago. Vozzo was having a routine day at her job as a physician’s assistant in Brooklyn when she began experiencing a headache. It was a few hours after the pain began when she was reading a patient’s charts and knew that something was not right. “I just couldn’t see, letters were all scrambled, it wasn’t clear,” Vozzo said. “I just continued on and about an hour afterwards it was still the same.” She took some aspirin and continued to do her work.

Although it wasn't her normal practice, she finally told her boss she needed to go home for the rest of the day, where she took more aspirin and slept until the next morning. Despite waking up with the persistent headache, Vozzo knew she had to take on her day, because she had to travel to Manhattan for a job interview. She recalls speaking to a friend after the interview on her commute home, who urged her to see a doctor due to her continuing symptoms.

"I'm stubborn. Sometimes, I'll say, 'Yeah, yeah, yeah,' and not actually do something," Vozzo said. "Just to hear him stop saying it, I said, 'Maybe I'll think about it.' "

She soon found herself at Maimonides Hospital, where she was admitted to the emergency room; doctors began running several tests on her. Vozzo was getting very antsy as she was not receiving any results, and was ready to leave the hospital. "I was thinking to myself, 'In just five more minutes I am leaving,' " she said. "I wasn't going to tell them. I was just going to get up and leave."

As she was about to walk out of the emergency room, a nurse stopped her and told her that she could not leave—her doctors discovered that she had had a stroke. "It's very emotional for me, just thinking about it," Vozzo said as tears built up in her eyes. "I asked her, 'What are you talking about?' I was by myself, and I didn't know what to do."

Vozzo remained in the hospital for a week and spent three of those days undergoing physical therapy to ensure that there was no impairment to her motor functions. Upon release, she no longer had any symptoms or damage. "I was very lucky, thank God," she said.

In some ways she was not so lucky, because she left the hospital not understanding how her stroke occurred. "They didn't understand why it happened. I don't drink, I don't smoke, they

did so many tests,” Vozzo said. “For me they just didn’t have any answers; it was just mind-boggling. No one, not even myself, knows why.”

This marked the beginning of a desperate search to find answers from several different doctors, including neurologists and blood specialists, to determine if she had any health conditions. “I’ve been to all these different specialists and nobody has any answers,” she said. “There’s nothing showing anything. That’s bothersome, because what do you mean nobody knows? This has happened to us and nobody knows why.”

Fearing a recurrence is extremely worrisome for Vozzo, as she is a single parent of her 15-year-old son, Alexander. “All these thoughts run through your mind, especially because of your family. I have a child,” she said. “My kid needs me.”

Witnessing her son fear for his mother’s health is a perspective Vozzo knows all too well, as she grew up with a sick mother who also had a stroke in her 50s. She recalls being a caretaker for her mother from a young age, due to her mother’s other medical conditions, such as Crohn’s disease and osteoporosis, where the bones are less dense and brittle. “There were times I was coming home from school and for weeks at a time, she’d be laying in bed and she couldn’t get up because she was vomiting and couldn’t eat,” she recalled. “So I’d have to be there and take care of her.”

When her mother had a stroke, after she underwent surgery to remove a blood clot in her aorta, she was no longer able to walk, talk, or eat on her own. Vozzo and her siblings spent five years traveling from Brooklyn to Staten Island to visit their mother, who was then placed in a specialized care unit. “It was like watching an independent woman become basically dependent

on people to do everything for her,” she said. “It affected me, because seeing that in my early 20s, it was hard.”

Despite her mother’s stroke, Vozzo has undergone tests that indicated there was no genetic link. In the meantime, she understands the changes she needs to make in order to reduce her risks of her stroke reoccurring. “I really should be watching the types of things I eat,” she said, “Especially because you don’t know exactly what to do. I’m a warrior, but I’m having anxiety at times so having to mentally let go of things. It’s hard because if you don’t have counseling.”

CHAPTER 4: Enter the Phantom

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hile patients such as Harrison and Vozzo describe how lucky they are to not

have any physical impairment beyond their stroke, they began experiencing mental-health issues.

According to Mishra, even in patients who recover from the symptoms of their stroke and return to work experience anxiety over their job performance. “I do hear a lot of them say, ‘I’m not sure if I’m doing my job right, I’m not sure if I’m still able to perform this I get a lot of anxiety,’” she said.

Aside from this, Mishra said a common pattern among young stroke patients is the mistaken feeling that another attack is imminent—a phantom stroke—even when experiencing unrelated symptoms. “Even if it is not related say to the brain, maybe a little bit of chest pain or maybe a cough, I do know that because of their history they do tend to have a lot of anxiety, unfortunately,” she said.

Harrison established a pattern of returning to the hospital, even for days at a time, due to experiencing any minor pain or symptoms. “I was nauseous and I kept feeling like I was having problems or having a heart attack,” she said. “It messed with me mentally and put a scare into someone so young.”

Harrison also describes having episodes of stress when she would be commuting to work on the subway, perhaps due to the subtle reminder of the day she had a stroke. Along with this, she began having panic attacks in uncommon settings. “Whenever I would go into a store or a shopping center I got such bad anxiety where I felt like the room is spinning and I had to go sit down,” she said. “Before the stroke I never had that.”

The depressive symptoms she was experiencing not only took a massive toll on her, but her wife as well. “For the first month I was very depressed,” Harrison recalled. “I didn’t want to go anywhere and I didn’t want to do anything so all of that stress kind of fell back on her.”

To break free from the stress she was experiencing for about a year after the stroke, she and her wife decided to relocate from the city to Pennsylvania. Although there was a brief period of time where Harrison was commuting from her new home to her old job in Manhattan, she describes this change as “the best thing I’ve ever done,” which helped make a major improvement to her mental health.

Vozzo's doctors say that she is now suffering from anxiety due to the stroke, which in part is caused by the fact that her stroke was cryptogenic. "So just knowing that wherever you are, whatever you're doing, especially when you don't have answers to help you prevent it... it's scary," she said.

Additionally, Vozzo now constantly experiences a sensation that she can only vaguely describe as a fog. "But all of a sudden I was getting these feelings in my head I couldn't explain, even to the doctor," she said. "It's just a weird, foggy feeling, it's a constant feeling—like I said I cannot even describe it."

While Mishra told Vozzo that it could be a series of migraines, she also believes it can be caused by episodes of anxiety. Mishra added that stroke patients who return for routine checkups are screened for anxiety and depression; she said that further steps need to be taken in order to avoid the development of mental-health disorders in these patients.

"For all patients, but especially young patients, it is very important to refer them to a psychologist or maybe a psychiatrist or therapist or counselor," said Mishra. "I think we really need to include in our stroke treatment for these young patients."

CHAPTER 5: The Price

While the anxiety is enough of a burden, the costs of these visits can add to an already stressful financial situation caused by the initial stroke. At Maimonides Medical Center in 2018, among 75 patients ranging from ages 18 to 55, the average total charges accumulated was \$82,200. The average amount of time spent in this center for these patients was six days.

John Holahan, the director of charge master and revenue initiatives at Maimonides, helps paint a picture of the costs that can add up when being treated for a stroke. "The faster the

treatment, the better the outcome for the patient, because it lowers the amount of days spent and the costs overall,” Holahan said. “The strokes are kind of a waiting game.”

A major factor that can quicken the recovery for a patient is the administering of a tissue plasminogen activator, otherwise known as a TPA, which can quickly break down the clots that are causing a stroke. A TPA, however, along with other forms of stroke detection, can significantly contribute to the overall cost of a patient’s treatment. “Anytime you do an MRI or an X-Ray, those are usually high-cost tests that can add to the total costs,” Holahan said. “Just lying in the bed, there is a cost associated with that. It’s like staying in a hotel.”

But after the initial stroke, if the patient returns to the hospital after a 30-day readmission period, where they would not be charged by their insurance if they present the same diagnosis, they will be issued small charges for being admitted in the emergency room, even for the false alarms that Harrison and Vozzo have described. “We are also a teaching hospital, which means the residents who are the first responders tend to order more tests in general because they are going to try and rule out everything,” Holahan said. “The costs go up because of that.”

This can also cause a domino effect within hospitals, because even if these returning patients only receive a physical exam and are billed minimal costs through self-pay or insurance, this money will likely not be reimbursed to the hospital. Additionally, doctors and nurses on call are taking time from visiting other patients. “We only have so much staff,” Holahan said.

CHAPTER 6: Change of Plan

As Mishra has mentioned, many stroke victims are unable to return to their jobs

because of their disabilities, which can further add weight to an already existing financial burden. But when severe strokes occur in very young individuals, their career plans tend to fold before they even begin. This was the case for 22-year-old Brandon Belmonte, who had a cryptogenic stroke when he was 16.

Belmonte woke up on a Monday morning in 2014 in his Staten Island home, pale and covered in sweat. He told his mother he was not feeling well enough to go to school, and when she told him to stay home he decided to go back to sleep. “I woke up to get something to drink,” Belmonte said. “I walked into my kitchen and I just collapsed on the floor.” A blood clot in his aorta caused his stroke.

He was then quickly brought to Northwell Health on Staten Island, and then transferred to NYU Langone Medical Center in Manhattan, where he spent two weeks in their intensive care unit. Belmonte underwent three surgeries during his ICU stay, and then spent three months completing inpatient physical, occupational, and speech therapy at Rusk Rehabilitation in NYU.

“They were giving me, if you wanna call it, ‘school’ during the months of rehab but it was really nothing,” Belmonte said. “When I went home, I was home-schooled for the rest of

that year and all of my senior year of high school.” He recalls that because he had just transferred from an intimate private school to a larger public school, he didn’t want to go back due to being unfamiliar with the student body and worries of possible difficulties navigating the packed hallways when he was first unable to walk.

On top of the transition to home-schooling, because Belmonte was previously involved in sports his whole life, such as basketball and football, his social life saw change as well. “I was involved with sports and stuff but I couldn’t do that with my friends anymore,” he said, “so they just stopped talking to me.”

Denise Stassi, an occupational therapist on Staten Island for 17 years, has worked with many stroke patients throughout her career and has witnessed the drastic severities of stroke aftermath between young and old survivors first hand. “Younger stroke patients’ recovery and life initially tends to be more heavily influenced by social issues,” Stassi said. “This happens with older stroke patients as well; however, there is a better understanding from their friends and family about a stroke than you would find in a younger generation.”

Not only was Belmonte’s education interrupted, but so were his career aspirations. “I wanted to go to trade schools to learn about cars, welding all that kind of stuff,” he said. “But that’s kind of hard to do with one hand.” Belmonte experiences a lack of functioning in his left hand, along with short-term memory loss.

Stassi finds the issue of employment also differs much widely for younger victims rather than older. “Sometimes they have not established their careers,” Stassi explained, “and we need to explore new job options that they can manage while recovering from a stroke or manage with any changes that have happened physically or cognitively post stroke.”

Although it isn't building cars, Belmonte currently has a job at a Costco wholesale store on Staten Island. "I help out cashiers, I help people load their groceries into their cars, and when people don't want things I have to bring them back," he said.

Belmonte is currently focused on working as much as he can. When asked about any future plans he may have, Belmonte replied, "Good question. I really don't know honestly."

CHAPTER 7: The Rest of Their Lives

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As it is predicament that many young stroke victims face, Belmonte's doctors have

also been unable to determine a cause for his stroke. At first they believed he had a rare blood disease, but when that was debunked, they concluded that a possible cause was the fact that Belmonte used to crack his neck a lot. "I never drank, never smoked, never did any drugs," he said. "It was a freak thing with me."

While this causes frustration for patients such as Belmonte, it also causes a sense of guilt for other survivors such as Harrison, who had a combination of risk factors that caused her stroke. "There's some people that don't have the same probability as me, why did it happen to them?" Harrison asks. "Why did it happen to these kids because they are so young, and they don't have all the same risk factors that I had."

Despite the different ages of these young stroke survivors and the known or unknown causes of their strokes, they all experience a shared fear of recurring strokes that will linger for the rest of their lives.

Stroke survivors such as Vozzo urge that while these questions are unanswered in the medical field, young people need to take it upon themselves to become aware of this issue. “You think it happens in older people and people who are sick, so actually getting the word out there is very important, even educating ourselves by researching,” Vozzo said. “If you can empower yourself with knowing the signs [of strokes] and so on and so forth it’s even better.”

Doctors such as Mishra also agree that the understanding of common symptoms, such as headaches, having potential of being a stroke can save a life. “If you’re having any symptoms, even if someone is just having a headache and has some numbness on one side and say they are 20-years old that they are not taking it lightly and that they do seek medical attention,” said Mishra.

Whether it’s battling mental illness and physical impairment, starting new jobs, losing friends or moving to different states amongst many other lifestyle changes, Harrison, Vozzo and Belmonte represent a growing epidemic that begs for awareness.

And despite the many years they have lived, it is almost as if one day of their lives, perhaps put them back at day one. “It’s like teaching a new baby,” said Belmonte. “I had to learn how to do everything all over again.”

SOURCE LIST

Brandon Belmonte, interviewed on April 7, 2019.

Gina Harrison, interviewed on November 5, 2018.

John Holahan, interviewed on March 20, 2019.

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