



Neurological Surgery: one woman's perspective

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RUTGERS
BIOMEDICAL AND
HEALTH SCIENCES

Disclosures

- None
- No conflicts of interest



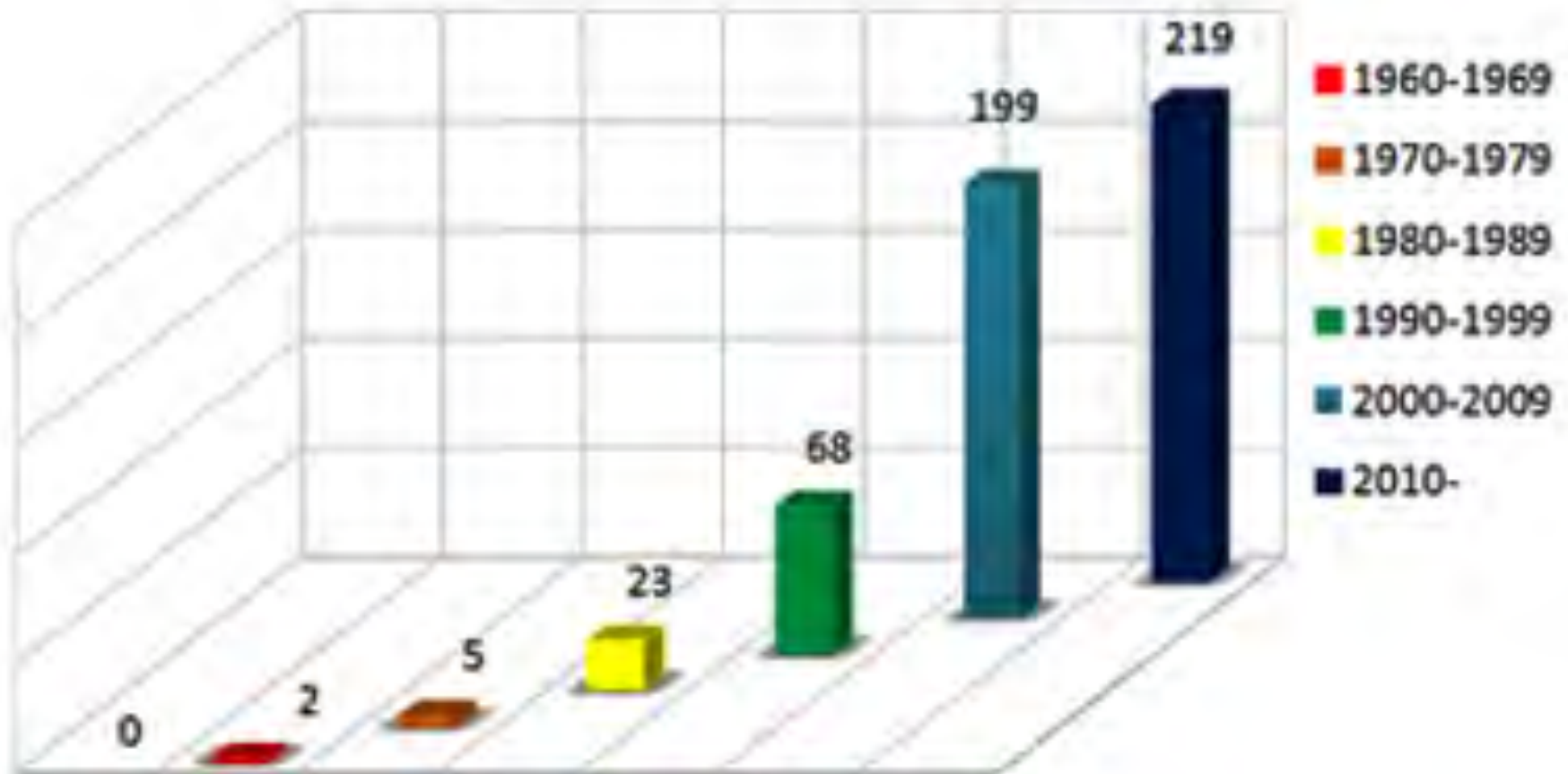
History of Female Neurosurgeons

- Before 1961, there were no board certified women in neurosurgery
- Between 1961 and 1970, only two women succeeded in becoming board certified ¹
- By 1999, the number of women board certified in neurological surgery soared to 68
- In 2006, there were still only 189 female neurosurgeons, who were board certified
- WHY is the ratio of male to female neurosurgeons surprisingly high? Why are there so few women in neurosurgery?

1. <http://www.neurosurgerywins.org/whoweare/certified.html>



Total # of ABNS-Certified Female Neurosurgeons by Decade



Challenges for Female Neurosurgeons: general considerations

- Educational cost and risk of “failure”
- Length of education and training
- Lack of female role models and mentors
- Medical school and residency training through the ages of twenty to forty: the “normal” childbirth years
- The societal stigmatism of the working mother
- Will I be able to have children and be a good mother?
- Challenges of finding a spouse or partner
- Lack of family or spousal support
- The “glass ceiling” effect in academia
- Isolation...social, intellectual and familial



FINDING THE FABULOUS

Mission Statement

1. Girls sometimes have a fear of failure

Girls are afraid to step outside of their comfort zone and pursue leadership roles

2. Girls sometimes feel pressure to achieve physical perfection

Girls sometimes doubt that they can make a valuable contribution to the world through their intelligence, kindness and ambition

3. Girls need help with cultivation of integrated aspirations

Girls struggle to connect with professional female mentors and see how their interests can align with a fulfilling career path





RICHARD ST. JOHN

The 8 Traits Successful People Have in Common

8 TO BE GREAT



BOOK & EBOOK



See Richard's **NEW VIDEOS**

POSTERS Wallpaper

BLOG
Tips for Success

FOLLOW



8 Traits that are necessary to succeed

- Passion – love what you do and do what you love
- Strong work ethic- do not be afraid to work hard and play hard too
- Skill- Practice what you love, get better all the time, never stop learning
- Focus- stay focused on your goals, do not get side tracked.
- Push- you have to push yourself. Overcome shyness and self doubt. Make connections and build relationships.
- Serve others- do something of value, solve problems!
- Ideas- be creative, listen, learn, observe, be curious and ask questions
- Persistence- do not give up. Ever.

Growing up in Queens, NY, I loved...



- Animals and small creatures
- My little sister, brothers & cousins
- Climbing trees and building tree houses
- Drawing, coloring and painting
- Science, math, and reading...Hall of Science
- Doing experiments; pet bugs; hatching chicks
- But I was very shy, insecure and introverted
- We were different from other people; military family



Pre-teen and Teen Years



- Grammar school and high school were difficult for me; I had little self confidence
- I read alot, painted (oils and water color) and wrote poetry
- AP Bio, AP Chemistry
- I wanted to be a research scientist and cure cancer
- Biochemistry and molecular genetics
- Science Times
- I did research at Manhattan College and at Montefiore Medical Center in college
- My mentor wanted me to apply for the MD-PhD program
- I was not thinking about becoming a doctor; I never thought I was GOOD enough

Medical School and Residency

- 1990 – 1995: Medical school with one year graduate research in biochemistry and molecular genetics; MD-PhD program
- My parents and family's opinions
- Neurosurgery Interviews – the only girl in the room
- 1995- 2000: Neurological Surgery Residency
- 2000-2001: Chief Resident
- 2001-2002: Pediatric Neurological Surgery Fellow at UPMC Pittsburgh





- Working 120 hours a week...now 80
- Call Friday 6 am – Monday night at 7 pm
- I first realized and understood how smart I really was
 - I became proud of my strength and stamina
- I first realized that it was OK to be different...in fact I preferred it!
 - It was difficult with no female mentor
- Passion, hard work, practice, focusing, caring for patients, learning and persistence helped me get through this







So what have I learned after 50 years?

- Believe in yourself (FOCUS)
- Don't be afraid of hard work
- Stand up for what is good and right (SERVE)
- Follow your heart, even when you are scared (PASSION)
- Your heartache is yours and you can control it (PUSH to succeed)
- The more adversity you overcome, the stronger you get (PERSISTENCE)
- Never stop learning
- Don't listen to hurtful people



Where you find strength...

- In your heart
- Friends and family
- Faith and prayer
- From the people you serve
- From people you protect
- Your dreams and visions
- Look at what you have already done and be proud; overcome
- Do not be afraid, for you are never alone
- Be good to yourself
- Be proud of who you are



What about the bullies?



- I am sorry for their ignorance
- I am sad for their loneliness
- It hurts me to think about their lack of faith
- I wish I could help them, teach them, heal them
- I will try and when I cannot, I will bake them cupcakes
- I surround myself with my family & friends

What about the bullies? Ethics and leadership

Catherine Mazzola
March 8, 2017 · 🌐

On a day focused on awareness of the importance and contributions of women, as a female pediatric neurosurgeon, I can tell you that this has not been easy. Every day, I hear about women doctors who are called "abrasive", "pushy", "emotional"...and worse...when they speak up and **ADVOCATE FOR PATIENTS**. So if you **KNOW** a female physician give her a **HUG** today and tell her "thanks" for hanging in there. Thanks for "trying to do it all". Thanks for caring, and thanks for sacrificing so much. Tell her you see it and it really matters. There are days when it gets so bad you just want to cry, but then you realize it wouldn't do anything, and it is a waste of time. The **ONLY** way to make thing better is to **TALK** about it. If enough of us are talking about the issues, things will change. Accepting negativity, accepting discrimination, accepting "bullying" does not make it "right"...it just puts the burden on the next victim.



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July 25, 2016 · Morristown · 🌐

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Please talk to your kids about this issue...its very important...



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Consequences of Bullying
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Remind yourself of who you are...

- I am a mother and a wife, aunt, sister, niece and daughter; huge family
- I have hundreds of friends
- I founded six different companies; 2 HIT
- I am a female neurosurgeon and researcher
- I am the Chair of the AANS Ethics Committee and on many other committees
- I have published many papers
- I have served on several boards, including EC of the Congress of Neurological Surgeons
- I am a teacher, a friend, a mentor to many young women and men
- AND I am not scared to stand up to bullies because I am a REALLY strong woman







Any Questions?
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