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# Writing in the Health Sciences: A Collection of Exemplary Student Writing Spring 2019

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# Writing in the Health Sciences

*A Collection of Exemplary Student Writing  
Spring 2019*



Edited by Colleen Morrissey

Foreword by John Ruff

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Some names and identifying details have been changed to protect the privacy of individuals.

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## Foreword

Gentle reader, welcome. Or, since it's your computer screen or smart phone upon which these words appear, thanks for having us.

The narratives that appear beyond this foreword, plus one modest literature review, one integrative study, and one healthcare guideline analysis, were written last spring by students from the College of Nursing and Health Professions in sections of English 205. English 205 is a writing intensive course offered by the English department, listed in the catalog as "Writing in the Health Professions." As titles go, that's pretty bland, for a course or for a collection of writing. Writing in the health professions is anything but bland, as you'll find out if you read any of the work in this collection. Health professionals write in a variety of genres, for different purposes and for different audiences. This collection features just three types of writing health professionals both read and write: the patient narrative, the literature review, and the integrative study. It also includes a genre of writing that you may not encounter in the profession, but which allows its writer to practice analyzing published professional practice guidelines. In the future, this collection may include other types of writing students encounter and produce in English 205, including print and online materials for patient education and patient advocacy.

Good evidence-based healthcare depends upon health professionals whose practice is shaped and informed by current research. Typically, scholars summarize, critique, and draw together that research in journal articles known as literature reviews or integrative studies. Such articles appear in professional journals that are peer reviewed. That means the writing is written by professional researchers, usually working in teams, for a reading audience of professionals in the same field. Before the research team's work is published it has been chosen and carefully reviewed by another team of professionals, the journal editors and peer reviewers, who often suggest revisions to the original. Writing in the health professions is a team sport played for very high stakes. Lives depend on what gets written and read. To play, you need to know the rules and know the rule book: the *Publication Manual of the American Psychological Association*, 6th edition. Though it will never be made into a movie, it's an essential text; don't leave home without it.

Healthcare providers need to make decisions about care, some of which are covered in a published professional practice guideline. Even as a patient, it can be important to understand the relationship between research studies and the healthcare recommendations that we receive from providers. As shared decision-making becomes more common in healthcare, all of us increasingly need to better understand how to assess and synthesize research articles and other information related to medical issues that we or our family members may face. To that end, the healthcare guideline analysis paper was designed to help future healthcare providers

understand the anatomy of professional practice guidelines and the ways in which their recommendations are formed.

The fourth genre featured in this collection, the patient narrative or health narrative, has emerged more recently. It plays a central role in a new field of study, actually a new mode of medical practice called “Narrative Medicine.” In 2001, Dr. Rita Chiron, of The College of Physicians and Surgeons of Columbia University, was the first to use the term “narrative medicine” to define an essential skill set and capacity for the health care provider she calls “narrative competency.” As Chiron writes in the abstract of her article,

The effective practice of medicine requires narrative competence, that is, the ability to acknowledge, absorb, interpret, and act on the stories and plights of others. Medicine practiced with narrative competence, called narrative medicine, is proposed as a method of humane and effective medical practice.<sup>1</sup>

I have learned in the process of teaching English 205 from the health narratives my students have written that narrative competence as Chiron defines it may be as important for the educator to acquire as it is for the health provider, and if you read the narratives that open this collection you will understand what I mean or at least get some sense of what I have experienced. Our College of Nursing and Health Professions is committed to preparing health providers who treat the whole person and not merely that person’s symptoms. My students become for me and for each other in their peer groups whole persons through the narratives they write. I find myself routinely amazed and humbled to find out who they really are, to find where they’ve come from and not just geographically, to find out what they’ve suffered and overcome, to find who and what they’ve lost and most of all, what brings them to a required writing class working their butts off to become a nurse or a physician assistant, or to go into health leadership or public health. I fell in love with this course and with the students I get to teach reading such narratives.

I was present at the birth of about half of the pieces published here. So I write as a proud midwife or doula, for myself and for the peer responders who helped the writers bring these fine works into the world. In addition, Professor Kim Whalen’s work with the student writers on Information Literacy in the health sciences contributed essential instruction for the APA-style reports and taught students how to find, evaluate, and critically read research sources at different levels of the “evidence pyramid.” University Writing Program Associate Colleen Morrissey did a great job choosing and editing the works that appear in this collection, and it was Kelly Belanger, the University Director of Writing, whose excellent idea it was we honor these works by making them available as models to emulate. Read them. They are nutritious, good for the heart, the mind, the soul.

John Ruff  
Professor of English

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<sup>1</sup> Charon, Rita. (2001). Narrative medicine: a model for empathy, reflection, profession, and trust. *Journal of American Medical Association*, 286 (15), 1887-1902.

## “But I’m a Person Too...”

Anonymous

I saunter down the hall of the nursing home where I am employed, having just clocked in. I sneak a glance at a clock as I pass, noting that I still have ten minutes before the start of my shift. I smile to myself, knowing that I have just enough time to stop in to see my favorite residents before I check in at the nurses’ station on my unit for report. As the day-lounge on my unit comes into view, I slow to a halt and scrunch my face in consternation as I notice Hank lounging on a couch by himself. Hank is not as lucid as he used to be and is now considered a high fall risk. With no staff in sight, I decide that my visits to favorite residents can wait as I ensure that Hank is still comfortable and is not planning on standing up by himself for a while. With a big smile fixed on my face, I skip over to Hank and crouch so I am in his line of vision.

“Well, good afternoon, Hank!” I exclaim, then tap on his knee until his gaze meets mine. “How are you doing today?”

He gives me a huge grin and places his hand on top of mine. With his slight stutter and a gravelly voice, he says, “I’m doing good, doll. H-how are you?”

I smile inwardly. His nickname for the nurses and CNAs warms my heart. We converse for a while, with me repeating myself a bit and him trying his best to respond with the few words left over from his stroke while continuing to hold my hand that was placed on his knee. I look at the time and am about to excuse myself to receive report when I notice that Hank’s worn, brown eyes start tearing up.

“Oh, Mylanta, Hank!” I cry, alarmed at the suddenness of the tears. I take a seat next to him and place my free hand on his arm and squeeze gently. “What’s wrong?”

He shakes his head and grips onto my hand tighter. “Y-you’re so nice...nice to me, and I love the smile you al-always have on your face.”

I tilt my head in confusion. “I’m glad you do, Hank, but that makes you sad?”

“No, no,” he responds quickly, trying to smile, but then his lip starts quivering. “You treat me so nice, but...but the others treat me badly.”

“How do they treat you badly, Hank?”

“They’re rough on me. They throw me into bed like a ragdoll, a-and I hate it! I know I can be an-noying and I’m not all there at times, but I’m a person too, and I have feelings...”

I sit there in stunned silence for a moment, struck by anger at the ones who treated him like this. As suddenly as the anger comes, guilt replaces it as I realize with growing horror that I am at fault for this crime as well. Hank apparently does not remember the few nights that I am irritated that he is being too slow to get ready for bed and I am rougher with him, but these memories are very vivid in my head. I have never treated him like a “ragdoll” like the others do, but I place my frustration and lack of niceties towards Hank on the same level as their cruelty. For me, it is unintentional—I just want to take care of my other residents in a timely manner and forget it in the moment, but I hang my head as I know that no defense is good enough to excuse myself from my actions against Henry.

This realization weighs heavily on my heart the entirety of my shift, nagging at the back of my mind as I hurriedly provide care for the residents on my unit. The guilt knocks against my chest even harder as Hank smiles at me and says his “goodnight, doll” as I turn out the light in his room, he having already forgotten our conversation from earlier that day. I go home that night and sit on the edge of my bed, tears spilling onto my cheeks as I promise myself to never again put a patient through that pain, no matter who they are.

That day will forever haunt my career as a CNA and eventually my career as a nurse, for it makes me realize that even the most well-meaning nurses can treat patients wrongly, and many people in healthcare are not very well-meaning. The patients in places like the hospital and nursing home are people, just like the nursing staff that takes care of them. The only difference between the patient and the nurse is that one is sick and needs more help and the



other provides that help. Too many healthcare providers take advantage of the weakened state of their patients and behave like it is an inconvenience to be taking care of them, even though it is possible for them one day to be on the same side of the care as their patients. This is an inherent flaw in healthcare that needs to be fixed, for patients deserve not only physical care but also care for their mental and emotional well-being. They are human beings who have willingly placed their lives and care into our hands, and it is our job to treat them as such.

# “Not Just a Nurse”

Anonymous

There is always the inevitable question that we college students have to face more times than we want to, the question that makes us rethink our entire career choice and life in general, the one that scares us to answer in fear that we don't actually have an answer to it, the one that asks, "So, what do you want to do with your life and why?" This question has scared me for quite some time. However, just recently, I finally found my answer to it. It wasn't easy, and I had some confusing and hard times finding it, but it is a relief to finally be able to answer this question with positivity. This paper is about my journey that was taken to find a career I am truly passionate about: career in nursing.

My journey in healthcare started when I decided to get my Certified Nursing Assistant license the summer after I finished high school. I knew I wanted to do something in healthcare, but I wasn't sure exactly what, or why for that matter. I decided that becoming a CNA would be the best option to get my feet wet. Working as a CNA the past eighteen months has not been the most glorifying job. There are many times I wonder why I am doing what I am doing. However, despite the dirty work (literally), there have been some special moments that have reminded me why I have decided on a career in healthcare.

A special moment that has stuck with me deals with an 86-year-old aphasic woman. Aphasia is the medical term for not being able to speak. This not only made it challenging for her to communicate with me, but also challenging for me to communicate with her. The "language" we shared consisted of constant head nodding, pointing, smiling, and frowning. It was our special way to communicate. Every morning this summer, I had the responsibility of waking her up, toileting her, bathing her, dressing her, and finally getting her placed comfortably

in her wheelchair for the day. After some time spent together, the woman and I had created a special bond. She became like a grandma to me. I would paint her nails every week, put her wispy grey hair into a braid every day, and stay past my shift if it meant giving her some extra attention. There was one day in particular that I will always remember. I had just braided her hair and gotten her placed in her wheelchair for the day when I noticed she would not let go of my hand. I was wondering what she might need. I pointed to the remote thinking she may have wanted to watch some TV? Nope. I handed her the water bottle, thinking she may have needed a drink? Nope. I continued to point and hand her items until I realized she was now pulling me in closer to her face. I leaned in close to see what she was trying to communicate with me.

However, she did not need anything at all. She simply kissed me on my cheek and let out a cheesy smile afterwards. Just by using her facial expressions, I knew that she was giving me a special “thank you.” It was this moment that reminded me why I chose a career in healthcare. I had the ability to make a wheelchair-bound, 86-year-old woman with aphasia feel cherished, loved, and wanted. It made me realize that sometimes all a patient really needs is someone to talk to and to give them a little extra care and attention. It was this moment that I knew I wanted to be that special person to people for the rest of my life. I knew I wanted to make the sick not only physically feel better, but emotionally better too.

After I knew healthcare was a definite fit for me, I decided to study to become a physician Assistant. If I am being honest, I do not have an answer as to why I chose this profession. Maybe it was the challenge to become more than just a nurse that pulled me in. Or maybe it was the pay. Or maybe both. I was accepted into Valpo’s 5-year direct admit program as a freshman and was excited for what the future would hold. To get more of a grip on what a typical PA’s day entailed, I decided to start job-shadowing an orthopedic PA along with an OB PA. Both experiences were eye-opening and very interesting to me. However, as my freshman year went on, I knew something was missing. I was simply not happy with where I was. I did not quite know what was missing, but I knew I was not passionate about the career I was about to

enter. I continued along the path of a PA for the rest of my freshman year, praying that I would soon find an answer to why I was in the PA program in the first place.

It wasn't until a hectic and busy day at work, filled with poop, pee, vomit, and who knows what other bodily fluids, that I had finally found my calling and the answer to my unhappiness. An old woman, probably in her early eighties, was on my unit. I did not know her very well, but I did know that she was bed-bound and also incontinent. When someone is incontinent, they must be changed every two hours to prevent skin breakdown and ultimately sores. When I found the time, I went into her room to change her by myself. Usually two people are needed to change a bed-bound patient because of the rolling that it entails. However, this woman was so frail and bony, she could not have weighed over 110 pounds. When I was rolling her over to clean her up and place a new brief under her, I realized that her back had become very dry and ashy. Without thinking, I quickly grabbed the lotion next to her bed and rubbed her back until the lotion was rubbed in. After I rolled her back over, I noticed tears had filled the woman's eyes. I asked her if she was okay, if she was in any pain, or if she needed anything. She responded with a smile, "No one has ever lotioned or rubbed my back here before. Thank you."

It really is the small things that matter. This experience reminded me of the 86-year-old woman that solidified my choice to work in healthcare in the first place. It's amazing that braiding someone's hair, painting someone's nails, or even taking the time to rub lotion on someone's back can bring someone so much happiness and gratitude. After this day, I knew PA was not the right career choice for me. I needed something more hands-on and personal. I didn't want to be the person who evaluates, diagnoses, or prescribes anymore. I wanted to be someone who could continue to go the extra mile for someone, someone who could change someone's day simply by giving them extra physical and emotional care. I wanted to be a nurse.

Three days before the deadline to drop/add classes here at Valpo, I changed my major to nursing. Talk about the last minute. Ever since then, I couldn't be happier. I am now

passionate and excited for what my future might hold, something I hadn't felt for a long time. I often think back as to why I chose PA as my original career path. I didn't want to be "just" a nurse. However, I am not going to be just a nurse. I am going to be a friend, a companion, a comforter, and a caregiver. I am going to be the nurse who is compassionate, loving, and ethically wise, along with skilled and professional.

I am sure there will be days after work that I ask myself, *Why the hell did I become a nurse?* But I will simply be reminded of the two patient experiences I had working as a CNA, the two patients that opened my eyes to a profession that I knew were my calling. So, if you haven't found the answer to the frightening question, "What do you want to do with your life and why," don't be discouraged. It might just take a day filled with poop, pee, vomit, and who knows what other bodily fluids, to finally find your calling.

## “Searching for Actions Instead of Answers”

Chris Manyek

*Ring, ring, ring!* My alarm went off at 4:30 in morning to signal that I had to get up and head to the hospital for my final clinical experience. I made it to the hospital by 6 a.m. sharp to start my four-hour rotation. I got assigned my patient for the day by my clinical instructor, and it was evident that I was in no way prepared for what I was about to face.

I knocked on the door and went through my whole spiel, saying, “Hi, Mary, my name is Chris. I’m from Valparaiso University, and I will be taking care of you today.” I could see the hopelessness in her eyes immediately. When I asked her how she was feeling, she snarled, “I just want to find answers.” I was able to tell she was upset and discouraged that the physician was unable to find anything wrong with her. It was also made clear by her blood pressure reading of 150/90. As a clinician, I would have usually interpreted this as a problem; however, I could tell she was just frustrated and anxious, which was causing her blood pressure to spike. It was hard seeing her struggle. It made me feel all bottled up inside, like a boat encased in a jar instead of being set free on the water. Martha was tired of losing her battle trying to find an answer for what was causing her ailment.

Despite noticing the obvious signs that Mary did not want to be bothered, I went further and tried to engage in a conversation with her. As she described to me that she suffered a major car accident back in 2011 that required half of her occipital bone to be replaced with a metal plate, I felt my stomach turn to knots, and I could see that the woman was ready to give up. She was telling me her life story, but somehow it felt like she was speaking from herself as a human being, rather than as a patient. In a way, it opened a doorway to potentially finding a diagnosis for what was going on. From the car accident and her brain injury, Mary developed fine tremors that resembled seizures and a form a cerebral palsy. Seizures are an electrical

disturbance in the brain, causing the body to have uncontrollable movements. What was interesting in her case was that she had facial drooping as well, which classified her as having cerebral palsy too.

Like every other clinical day, I continued my conversation with Mary and began my head to toe assessment. I started with her head, looking for any rashes or lesions on her scalp. Then I moved down to her face to make sure it was symmetric, and I also looked at her eyes, which appeared to be within normal limits as well. I took her pulse and counted her respirations. Her pulse was high, but I thought it was just stress-related. I got down to the abdomen, and it started. Out of the blue, Mary exclaimed that it felt like her lips were tingling. I signaled to my fellow classmate, and I told her to push the call light to alert the nurse in the nursing station. As a nursing student, I did not have very much experience with neurological conditions. When my patient started having a seizure, I felt nervous, like I didn't know what to do; however, the skills and knowledge were there. I made sure to turn her over onto her side, because if she threw up it would have caused her to aspirate or caused the vomit to go into her lung fields. I also looked at her eyes once again. They were unresponsive and unreactive to my pen light.

After I looked at Mary's eyes, I told my classmate Liz to make sure if she threw up to have the suction ready to vacuum out the vomit to prevent aspiration. I walked out of the room to look for my clinical instructor. Panicking, with sweat beating down my forehead, I sprinted down the hall to grab Charity, my instructor, since the nurse was nowhere to be found. It was ironic that as I was doing my assessment, the nurse who was on duty to care for Mary came in, asked questions, and left as soon as she started having a seizure, like she didn't want to help. Luckily, Liz and I were able to come up with a plan to prevent any further complications.

Life is funny. It can swing you one way or another at a moment's notice. When I pondered what Mary explained to me about her car accident, I thought, *You know, this could be me in the bed having to deal with the seizures that she has to go through daily.* After this

experience, I had a long look at myself in the mirror, and I just thought about how troublesome it is for her to go on with her daily life.

At the end of the day, this is why I chose to become a nurse. I've said many times that nursing is not a choice. Rather, it's a calling. One thing I try to implement when I am in the hospital is the thought that I could be the patient sitting in the hospital bed. This gives me a reality check, meaning I wouldn't want anyone to give me inadequate care while I am in hospital. A lot of times, nurses' schedules are jam-packed with a million things to do. That is when it's important to take a step back and breathe. Being a nurse signifies working in a team, and I am very thankful for my classmate Liz being there during my patient's crisis. When you think about working in the hospital, you think about the patient's needs constantly; however, I believe it is equally as important to care for your coworkers. After Mary's seizure subsided, Liz asked if I was okay, and that meant a lot to me because it showed me that she was there to support not only the patient, but me as well. It is very easy to get burned out and overwhelmed when there are a million things to do in a day, so make sure to look after your coworkers as you would your patients, because nursing is a team sport.

Due to HIPPA regulations, I was never able to find out what happened with Mary. It still sticks with me to this day; I wish I could have done more for her. She was just a troublesome boat locked up in a bottle trying to find answers to make it to the sea. In the moment of her seizure, I believe the nursing staff could have done more for her. The nurse's action of walking out during her seizure episode was uncalled for. The nurse should have called for help or signaled the doctor to take a look. After a lot of thought about Mary's case and the nurse's actions, I think maybe the nurse was intimidated by the situation. As a future health care provider, I'm still learning, and I don't know how to handle a lot of situations; so maybe the nurse was new and felt that it was best for her to walk away abruptly. However, I believe the nurse could have taken better action to help Mary instead of throwing her into my hands. One thing I will take away from this situation is to never turn my back on the patient, even if I don't know



how to handle the situation, and to search for the action instead of the answer to help the person.

## “My Father’s Illness”

Anonymous

As I walked into the hospital, all I could think was, *Why are we here again?* I will never forget being a second-grader walking into my father’s hospital room. The nurse came out of large grey doors, and she took my hand and said, “Your father is very sick, but I am going to take you to see him. Put on this mask, gown, and gloves, and we will go in to see him.” I was very confused and scared by having to put on all of this extra equipment. My family was instructed to stay outside of the ICU since there were so many risks. The door to my father’s room opened. I did not want to go inside. All I could see were tubes and machines. I was hearing all sorts of beeps and sounds. My dad was lying in a bed but appeared to be lifeless. That’s because he was, but at that time I did not fully understand what complete ventilator support meant. This was just one of the many scary moments I faced with my father.

When my father won full custody of me, I could not have been happier. As he would always say, “We are a two-man team.” This statement could not be more true. His long journey of recovery began in 1990 when he was hit head-on by an underage drunk driver while on his motorcycle. Many years later, when I was about nine years old, my father began the trips to the hospital and rehabilitation centers. Sometimes my father would be gone for months at a time, and I would be moved around from family members’ homes to different friends’ homes. My life was constantly changing. I grew up with a feeling of sadness because I would always miss my dad so much. It was often hard seeing my friends with their families because I yearned to have that support when my father was away. When my father was at home, I was his primary care provider, even though I was a child. He suffered from varicose veins, an enlarged heart, a hole in the heart, high blood pressure, sleep apnea, obesity, hip replacements, and an array of other things. His legs and hip were what slowed him down the most. As a child, I did not realize how

truly sick my father was—he did such a good job of hiding his pain. I was the person changing his leg dressing in the morning before school, only to come home to see them saturated, and I'd have to change them again. Due to all of my father's complications, we were a team, and a great one. He was not capable of completing daily living tasks, so this meant that I would help with dinner, laundry, showers, and all the chores around the house. My father always expressed this feeling of sadness, that he felt like he was not a good father due to his disabilities. I would always reassure him that it was not a big deal for me to help him and that he was a wonderful father who provided care to me as well. My father needed me just as much as I needed him.

My father and I did everything together and told each other everything, and we enjoyed our life that way. Throughout the many bad times, there were always moments of laughter to cover up the pain. For instance, my dad once had a trach put in his neck to help him breathe. However, when it was removed, the hospital staff did not sew the hole in his throat shut. He did not realize this when he decided to go swimming in our pool. When he went underwater, my father instantly started drowning due to the water rushing into his trach. I panicked. There was absolutely no way I could pull a 350-pound man out of the water. Luckily, his friend was working on his truck in our barn that day, so I ran to get him. By the time we got back, my dad was standing at the edge of the pool coughing like crazy. I'm sure he could read the worried expression on my face and said to me, "Don't worry, I'm just practicing for my life as a whale, and I had to learn how to use my blowhole." Of course, I started laughing, but that was just the type of person my father was. He was always trying to lighten up the situation.

Many years later, after a multitude of ups and downs, my father's health started to extremely decline. Part of this was due to his depression that came from the many complications. One day, I heard my dad talking in his room, but no one else was in our home. So I went into his room to find him leaning over his bed. I asked what he was doing, and he replied, "Leave me alone. I am talking to my parents." However, both of his parents had passed away many years before. This frightened me. The night before, my father had sat me down for

an extensive talk about what would happen to me if he passed. He warned me not trust his family, but I assured him that the family disagreement was between him and them, not myself. I was only sixteen. The next day I was sitting in school and all of a sudden I felt this awful, weird feeling and began to cry. My cousin approached and asked what was wrong. I told him that I knew my dad was sick, but I didn't know how much longer he would make it. After school, I found out that my father had passed away in his sleep. This discovery, by far, has been the most traumatic event of my life. The face of my father did not even appear to resemble the same man. Seeing him lay lifeless in his bed in our home is an image that will be forever engraved into my mind. All I could think about was how I was just talking to my main supporter and go-to guy, and within a matter of hours his beautiful, kind, and loving soul was taken away from me.

Not even three days later, my family was in shambles over money they owed my dad, which they now owed me. Needless to say, we haven't talked since the day of my dad's funeral, which was over six years ago. So not only did I end up losing my father, but almost my entire family and support system at the same time. The people who were supposed to be there were not, just like my father had warned me. I was forced to move into the home that I inherited from my father, where I finished high school and currently reside. Thankfully, my father prepared me well. We would sit down and fill out the bills together, so due to this, I was better able to manage my financial responsibility. Luckily, I had just gotten my driver's license, so I went on the hunt for a job. I got hired at Menards and at Porter Regional Hospital. My life took a complete turn. I would go to school until three p.m. and then go straight to work at Menards from four to ten p.m. Then, from ten p.m. to six a.m., I would work at the hospital and maybe squeeze in a half hour of sleep before school. The night shift was usually slow, so I would be able to get my homework done. I did this about three to four times a week and worked at Viking Chili Bowl on the weekends. This led to me sleeping through almost every first period government class I had.

Everything happened so fast that I did not have time to fathom my father's death. I became socially isolated, which led to terrible depression.

My first method of coping was to lie to myself. When I would get upset or think about my dad, I would just tell myself that he was fine, that he was just in his room watching a movie and everything was normal. I denied his death. Little did I know that I was doing more harm than good. This caused the grieving process to take even longer. About four months after his death, everything hit me. I realized he was never coming back. I would sit in lawyer meetings by myself not understanding a word they were saying, my eyes focused on the door, imagining my dad busting through them to save me. I would dread sleeping due to awful night terrors of screaming and crying. I would dream of him. Sometimes the dreams would be of my childhood; sometimes they would be future events such as a recurring wedding. I also had dreams of him holding children because he loved kids. This type of mental illness I was struggling with was destroying me. Everything that I did—and still do—with my life, I wonder what his opinion would be. It does not matter if the event is good or bad, such as getting an A on a hard exam or getting a speeding ticket. When a meaningful event happens in my life, I yearn to confide in him, but he is not there, so I often feel sorrowful because I can no longer share my life with him.

Losing my father and my family simultaneously really taught me that no one is going to be there for you, so you need to be there for yourself. Over an extreme length of time, I have managed to pull some positivity out of this experience. I now know how to manage a household, how to pay property taxes, how to cut and split firewood for winter since my home is only heated by an outdoor wood furnace, and I now have extremely better time management skills. I learned how to be independent at a young age, which I am very thankful for. I also learned a lot emotionally. I am extremely cautious and caring toward all people because you never know what they are going through. I often end up giving myself the short end of the stick to help others. Another important aspect I learned from the death of my father is that no matter how sick, how much pain you're in or what you're going through, it is your choice to make a better

situation out of it. There are two types of people: the people who dwell on all the negativity surrounding their life, and the people who take the negative instances and make the most out of them. One little event can change our whole thought process on how we view life. As hard as it seems to do sometimes, staying positive is key and knowing life is an extremely special gift is what is going to give you strength to overpower life's traumatic obstacles.

## “A Home”

Isabella Portugal

When I was in elementary school, I hated going to the nursing home to see my great grandmother. The smell, the atmosphere, the confused old people wandering around with grumpy and reluctant aides and nurses, all made me cringe. I clung to my grandmother, my great grandmother’s oldest daughter, whenever she dragged me to visit. I called my great grandmother “Lola,” which means “grandma” in her native language of Tagalog. Her first name is my middle name, so I always felt a special connection to her. It wasn’t that I didn’t love her or that I didn’t want to see her—I just despised the nursing home itself.

My grandma visited her often, especially as she began to decline both physically and mentally. As a retired nurse, my grandma cared for her mom with dignity and compassion. I watched her in amazement as she patiently dressed, fed, and talked to my great grandma. I remember thinking how wonderful my grandma was, and how she was my hero, my inspiration, and my best friend. Looking back, I can’t imagine how hard that must have been for my grandma. Seeing her mother withering away each day must have been so painful. My grandma came to visit so often because she worried that her mother wasn’t getting the best care. She felt it was her duty to care for her, which seemed backwards. Why did she feel the need to provide extensive care when that was the purpose of the nursing home? Why was it called a nursing home if it felt like anything but a home?

Fast forward to October of 2018. My Lola had been dead for nearly nine years. My grandma’s youngest sibling, Carmen, was battling a debilitating and degenerative lung disease called bronchiectasis. Her lungs were failing, and her breathing was progressively more labored. My Auntie Carmen was just shy of being 64 years old, which is too young to be so ill. Again, my grandma stepped up to be the nurse. She was there at Carmen’s house almost every single day

for six months, watching her baby sister struggle with every breath. My cousins, aunts, and uncles lovingly called my grandma “head nurse” because of her ability to lead, delegate work, and take charge of any situation.

As Auntie declined, my grandma realized that the end was near and that she could no longer take care of her without help. She was concerned about her sister receiving the best skilled care around the clock, and my grandma just couldn’t be there 24/7. She worried so much when she couldn’t be by her side, and she was glued to her phone waiting for any updates or changes in her sister’s condition.

My auntie was the founder of the methadone clinic at Porter Starke, so she was blessed to have connections with a wonderful fellow Filipino couple. They were both nurses that previously worked with Auntie Carmen, and they founded, owned, and operated a private care facility. The couple bought a duplex, knocked out the wall dividing the two sides, and transformed it into a place to provide long term care. It’s called Gabriel’s Home. Their clients had their own rooms with caregivers there around the clock. When they heard about my aunt, they graciously made arrangements for her to live there and be taken care of.

The last time I saw my beloved aunt was the week of this past Thanksgiving. The couple was hosting a luncheon for the families of their residents. When I walked in, I saw my aunt sitting on the couch, laughing and enjoying the homemade Filipino food with my family as well as the couple who operated the facility. She was talkative, comfortable, and she seemed *at home*, despite having to use a walker and needing a nasal cannula 24/7. My grandma sat with them, chatting about their nursing careers and sharing stories. My father spoke Tagalog with the couple, remembering our common Filipino roots. They welcomed my aunt and the family into their facility. Actually, it felt nothing like any healthcare facility I had ever been to. It was warm, welcoming, and safe. I knew Auntie was being cared for in the most personal, special way here. The way the aides and owners treated her was the way anyone would want their loved ones to



be treated. They listened to her, helped her, and answered all of our questions. My grandma was able to relax a bit, because she knew how well her baby sister was cared for.

Sadly, my aunt passed away in early December of last year. She took her last breaths surrounded by her siblings, nieces, nephews, and grandchildren in her room at Gabriel's Home. My family is ever grateful for Gabriel's Home providing my aunt with the best care at the end of her life. They truly embodied what a home should be in terms of long term care. Gabriel's Home took care of her the way they would take care of their own family, which is a lesson for anyone pursuing a career in healthcare. Treat all patients how you would want your loved ones to be treated. Make them feel as at home as you can, even if it's with a small gesture like making sure they have their favorite foods or bringing their favorite pictures to display in their room. Gabriel's Home was my Auntie Carmen's last home before her passing, and it truly was the best home to be in. It was a real home.

## “Connect the Dots”

Ty Snarr

“You don’t have to understand everything,” was a phrase repeated to me all too often in my childhood. It was frequently said as I was being punished. I always craved a rationale for how the punishment fit the crime. I would debate my mother about how ridiculous any given discipline was compared to my supposed misbehavior. Quite regularly, she would spit back, “I am your mother, and I make the rules. You don’t have to understand everything.” Although this quote became synonymous with punishment, my desire for understanding did not stop there. In classes, sports, friendships, and elsewhere, I have always craved the whole picture and followed the path that seemed most logical. Until recently, I did not have the vocabulary to describe the phenomenon to my parents, peers, or even myself. When asking a psychology professor a plethora of questions before an exam, he told me, “Ty, you have a high ‘need for cognition.’” Something about the professor explaining the term was liberating. He discussed how some people have a strong desire to connect the dots in their worlds of classes, sports, friendships, and so on.

The reason why I am studying public health has become clear. I don’t have a history with medicine that would push me in this direction. There hasn’t been a traumatic or inspirational experience for me or a loved one. I don’t know a single family member in the medical field. I am not particularly interested in the human body. Nevertheless, when I registered at Valparaiso University, the culmination of dots throughout my life began to connect. A dot created on my kitchen floor in my hometown. A dot found at the local soup kitchen on a Tuesday evening. A dot discovered halfway around the world in Beijing, China. Lastly, a dot uncovered at my grandfather’s office. These stories, these “dots,” have stuck in my mind and transcended time to

connect and become the vocation I have today. They push me ceaselessly into the future, toward the dots upon which I have yet to happen.

The world has always fascinated me. Not in the traditionally cliché sense in which I am overly obsessed with travel, but in a very literal sense. Maps have captivated me for as long as I can remember. Whether it is a straightforward political map, a topographical map, one comparing life expectancies, or somewhere in between, cartography and demography never stop exciting me. For my fifth birthday, my parents gave me an interactive, talking globe. For hours, I would sit on my kitchen floor, tapping away at different countries. I learned about densities, national anthems, gross domestic product per capita, capital cities, and much more. I am very thankful that I didn't use the gift out of respect for my parents but truly enjoyed the insight into the world. For my following birthdays, I asked for atlases and vexillological books. I always continued to study diligently on the kitchen floor. When I performed in the talent show in first grade, a map was projected in front of the student body where each country on the screen was numbered. A kid from the audience would draw a number, and I stated the country's name and shared facts about the country. My passion for knowledge about the rest of the world had never been higher. This idea of understanding populations and cultures felt integral to my existence, even though I had no need to possess this expertise. For reasons unbeknownst to me, I had more dedication and drive to a subject as a seven-year-old than I did throughout a majority of my schooling. As time persisted, my enthusiasm inexplicably faded. Perhaps I grew tired of spending so much time on a single matter; I'll never know definitively. Nonetheless, learning about others in this societal capacity entertained my sense of wonder. My first dot in connection to public health was created.

As much as majoring in public health will conceivably lead to a career, the profession is all about service to your neighbor. Shortly after the economic collapse of 2008, my hometown of Wilmington, Ohio needed neighborly service more than ever. If one types into Google "Wilmington DHL," a *New York Times* article appears detailing the financial devastation incurred

by the town of 12,000. The county's largest employer, DHL, a delivery and logistics company, left town, leaving nearly 10,000 unemployed. In step with the unemployment rate, the number of attendees at the local soup kitchen, Your Father's Kitchen, grew proportionately. My dad, who was, and is, head of the board at the soup kitchen, constantly worried about its sustainability and future. When the community needed the resource the most, they understandably had the least amount of money to fund it. As a result, my father had our family volunteer weekly on Tuesdays to help provide for those in need. As a 10-year-old, the work was not my top priority or much of an interest of mine, but I had little choice. My primary job was serving the meals to families. I would tell them what was on the menu for the night and note if they did not want any of the items. I'd retrieve the plates made by other volunteers in the kitchen and serve them to the guests. As a whiny preteen, it was just enough for me to handle without overloading me.

Week by week, more locals showed up in need of help. Surprisingly, going with my family and making a night out of the event became not necessarily enjoyable, but gratifying. It's amazing how one event can bring out both the best and worst in a town. Although thousands of people lost their jobs, I've never felt closer to my neighbors. During these months following the economic collapse, I came to realize the importance of aiding one another in times of urgency. Society cannot force people who are unwilling to help to do so. Individuals must take actions into their own hands. Likewise, it was my first exposure to a situation where an event triggered a public tragedy. Public health aims to do the opposite. Since 2008, Wilmington has begun to recover because of committed people wanting the best for their town. Watching our community come together added a second dot, a devotion to service, that eventually led me to public health.

My next dot was found flying into Beijing, China. The landscape was unlike anything I had seen before. The bustling metropolis, even greater than New York City and more advanced than Mexico City, mesmerized me. Prior to this instance, I had never witnessed a population so visibly immense. Coming into the trip, I had completed plenty of curious research. I knew many

statistics about the capital and country, but I couldn't prepare for the view from the plane. An intense feeling of adventure sparked in me. I found myself living out the dream of new cultures and places that I spent years learning about. The trip to China was not with a volunteer group or healthcare agency, so I did not practice any public health. Simply, the third dot was placed on my path to public health. A dot centered around venturing out and leaving one's comfort zone, essential to my calling.

Before this next story took place, these 'dots' were simply tugging sentiments with no connection. These stories were moments I thought about quite often, but I never truly entertained a path forward in life that would unite these occasions. Admittedly, I did not know public health was much more than an abstract concept until I helped my grandfather clean out his office on a sunny summer afternoon. My grandfather, a retired sociology professor at a local college, recruited me to move boxes of books, papers, artifacts, and cultural pieces, among other things, from around the world. I came across a human femur from Tenochtitlan, an article he wrote about female circumcision in Sub-Saharan Africa, and pictures of rural Panamanian villages. Eventually, I stumbled upon a series of pieces published in a scholarly journal named *Disasters*. When asking about the writing, he informed me of the public health work he did for a living. For months he collected data on communities' satisfaction with post-disaster dwellings in an effort to improve the housing for future families and individuals affected by international emergencies.

I used to think Thomas Edison discovered the lightbulb slowly, trying thousands of materials and making logical deductions before coming across the right combination. Recently, historians found that this number has been greatly exaggerated and Edison had no idea which materials would work better than others. The light in his workshop came unexpectedly, like a gift from the heavens. This is how my inspiration came.

My grandfather's work required him to map his findings, to serve others, to adventure, and to see populations and cultures alien to him. This mixture of my passions seemed too good

to be true. I had an epiphany in a dusty, half-empty office. I began asking him questions about public health and his work. His explanations fascinated me and brought together so many interests of mine. I continued my research on public health, each day becoming more certain of the direction my life was headed.

My history leading me to public health is neither flashy nor proud, neither touching nor vulnerable. In fact, reflecting on my past, I cannot say it is particularly compelling to those who read it. However, my story remains sensible to me. The dots distributed over many years of my life linked in an ultimately satisfying and fulfilling way. "You don't have to understand everything." I have grown to accept this phrase. Often times, I do not understand, yet life has a funny way of connecting the inexplicable dots into a beautiful constellation.

## “Less Than Normal”

Allison Stanley

Like many college students, I have not yet made the switch from my pediatrician to a regular adult doctor. This means that every time I come down with an illness, I get to go visit the office with picture books and superhero stickers. To some this is funny, but I think it is endearing. Ever since I was a child, I've enjoyed the familiar faces at my regular doctors' office when I was feeling ill. None of this changed when I came to Valpo, since I am originally from the area.

My illness this time? I thought it was strep throat, which I tend to get about four times a year. I am so familiar with the fever, chills, headache, and thick, painful white patches on my tonsils that as soon as I felt the twinge of pain when swallowing, I went to the doctor. To my surprise, when I entered the warm, brightly-colored waiting room, the nurse waiting for me was a different one than I was used to.

"Where is Katy today?" I asked, with a little bit of concern in my voice. I couldn't think of one time during my whole life that I had gone to the doctor and Katy had not been my nurse. The nurse replied with an uninterested shrug and continued leading me to my exam room. This struck me as odd also, because the staff were all usually very talkative, lively people who really seemed to love their jobs. In this moment, I felt slightly disregarded. I brushed it off, chalking it up to a stressful day, and allowed the nurse to begin charting.

After about 10 minutes in the exam room, the doctor finally popped in. Once again, it not the doctor I normally saw. I tried to hide the puzzled look on my face and allow the doctor to do her job.

"So, what brings you in today, Allison?" she asked while staring intently at her computer, her voice slightly monotone. I went on to explain my symptoms, and also to mention my

previous experience with frequent strep throat. I also explained to her that a close friend was recently diagnosed with strep as well, so I would not be surprised if a throat culture came back positive.

“You realize there are plenty of other reasons why your throat could be sore, right?” she snapped back at me, while still never looking away from her laptop screen. I paused for a moment, waiting for a witty comment to tell me she was joking. I quickly realized she was being serious. Suddenly, I felt my face heat up and my brow furrow. The tone the doctor had taken with me was incredibly unprofessional and unnecessary. She made me feel uneducated and underqualified to communicate my own complaints about my body.

I fought the need to get defensive with her and calmly replied, “Well, yes, but just because of my past and my recent exposure to it, I just figured that is what it was. You have the degree though, so that’s why I’m here!” I tried to finish my sentence off with a soft smile, just to let her know there was no sarcasm hidden in my comment. She reached into the cabinet for a sterile swab and gloves, and proceeded to tell me that a throat culture was necessary to see why it was sore.

A few minutes later, the doctor returned into the exam room with the results of my throat culture. It was indeed strep throat, just like I thought it was. In that moment, I felt justified. While every bit of sarcasm in my body was trying to come out to the doctor as a response to her attitude with me, I decided to keep things professional. I accepted a prescription for amoxicillin and gathered my things to leave.

While these interactions with the nurse and doctor on their own may not seem like a big deal, as I left the office, I felt insulted and talked down to. I was not at all used to this type of interaction with my beloved pediatrician. It was a running joke between Katy and I that I always grabbed a super hero sticker on my way out, but today I did not feel the need to stay in the office one second longer than I had to.



From that day forward, I decided it was finally time to switch from my favorite office with the nurse I had grown to love. As I was in the car making a phone call to an adult primary care office to become a new patient, I felt a pang of sadness in my chest.

*I will be the kind of nurse that Katy is*, I thought to myself. As I watched the office get smaller and smaller in my rearview mirror, I decided that I would do everything in my power as a future nurse never to act less than normal to my patients.

## “The Reason I am Here”

Ashley Strange

My whole life, since I can remember, I have wanted nothing more than to become Nurse Ashley. There are many nurses in my family, on my mom's side as well as my dad's. I was always so fascinated by the stories and experiences they would share with me. I loved that their job was solely to take care of people and help them feel better. For most of my life, I never had a pivotal point or realization moment to answer the question, “Why am I here?” It was always just, “I want to help people.” That is, until my dad had five-bypass surgery in 2014. I felt helpless while he was in the hospital. The entire time we were there, all I wanted to do was to help. Even though I felt helpless, I just remember thinking, *Someday I will be able to help someone who needs me.* Two years later, in 2016, I had shoulder surgery for a torn labrum, and it went about as wrong as it could go, with a multitude of complications. My family never left my side for the entire three-month duration. My nurses made my hospitalization stay better than I ever would have imagined. I remember how they made me feel strong, courageous. They genuinely cared for me, and that's how I want to make my patients feel someday. All of my experiences in those two life-changing scenarios are the answer to, “Why am I here?”

In 2014, my dad was three years away from his retirement from the Indiana State Police. And just a few years prior, he retired from the United States Army. To put it simply, he was as healthy as a horse. He was very active, always doing some kind of activity outside if he was not working. One of his favorite things was kayaking, which he was doing just days before he was rushed into emergency heart surgery. He said he felt fine and had no symptoms of heart problems. He had to get his heart checked out as a mandatory test for the State Police, and they just happened to find something wrong. He was rushed to emergency surgery because they wanted to fix the problem before it caused him to have a heart attack. When the doctors

came out after his surgery, they told our family that five of his major arteries were 90% blocked and that his heart had grown small vessels all around it like a fish net to keep the blood circulating. This “fish net of veins” saved his life. They had built their own circulatory pathway. They called him an absolute miracle patient. My dad’s hospital stay was quick, only about four days, but all I could see was how much pain he was in and how helpless he felt. We had to feed him, help him drink, help him stand and assist him when he walked. I had never seen my dad so dependent upon other people because that’s just not who he is. Being a state trooper, it was always other people depending on him for help, not him being the dependent one. I wanted to take all that pain away from him and just help him get back to his normal. So, I helped when I could, and I watched and learned when I couldn’t.

One of my sisters is a nurse practitioner, so she was there for most of our dad’s hospital stay, making sure all the medical staff were doing the right things and the right questions were being asked on my dad’s behalf. The day that my dad had his chest tubes removed, my family and any visitors had to leave the room because of how painful it would be for my dad. The nurses did not want us to see my dad like that because of how scary it can be as a family member to see your loved one in so much pain. My sister and my mom were able to stay in the room with him though, to make him feel more comfortable. I was always a bit jealous of my sister because of how knowledgeable and helpful she was during this time. I envied her. That helped me realize why I wanted to become a nurse. From this, I experienced how scary and in the dark it is to be the family of a patient. I also experienced the desire to genuinely care for someone who was sick and in need of someone else’s help. Although this was a horrible situation, it helped affirm my desire for a future career as a nurse. I was not the patient in the hospital, but rather the helpless family member depending on each and every medical professional to heal my dad. I experienced the care and compassion from the family’s point of view, and knew at that point I wanted to be the one helping as soon as I could.

Another experience that helped affirm a future nursing career for me was from a different point of view, when I was the helpless patient in the hospital. In 2016, I tore my labrum and needed shoulder surgery. My injury happened on accident, when I was wrestling around and dislocated my shoulder. This was all during my last swim season. I was devastated, thinking I would never be able to swim again and that I wouldn't even be able to compete during my last year of high school. I ended up being able to compete because I had to go through lots of tests to be cleared for surgery which bought me time, but it was very painful, and I was not able to endure half the events I normally swam. The preparation for my surgery began in February, but because of the many tests and retests, the surgery was scheduled and rescheduled many times. I had blood work done to make sure my body could withstand undergoing surgery. My family doctor found that my white blood cell count was chronically low, a 2.3 instead of the normal and healthy 11, so I was sent to a hematology/oncology specialist to have more tests done. Because of my low white blood cell count, I was tested for leukemia, knowing that was one of the major symptoms. Thankfully, the test was negative, but I was one giant question mark for my doctor. She wanted to do a bone marrow biopsy on me to rule out other findings, but I was more focused on the future surgery I was trying to get cleared for. She said, "Next time you come back, I will clear you for surgery if your white blood cell count is above a 2.5." This seemed like an impossible task for my body because my count had always been 2.2 – 2.4. Before my next appointment, I ate all the right things, got more than enough sleep every night, and did everything in my power to get my count up to a 2.5. I went back for my next appointment, and they drew my blood for the lab to test it. When the doctor came back, she had great news: "Ashley, your white blood cell count is a 2.7! I will go ahead and clear you for your shoulder surgery."

Finally, just one week before my graduation date, we were ready for surgery. The timing was fantastic. I bet you can imagine how excited that made me. My family knew the surgeon because my mom had to have shoulder surgery years before. We all loved him, and I trusted

him with my life. Although it was a routine surgery, complications can always happen. You really never know what will happen during surgery. Everything was going through my mind as I lay on the operating table waiting for surgery. At recovery, I was told everything went fine and that I would be headed home soon, ready to begin physical therapy in just a few days. Therapy was difficult, and I was not progressing as well as I had hoped. In fact, less than one month later I found myself back in the hospital on that operating table again because I had acquired a MRSA (Methicillin-Resistant Staphylococcus Aureus) infection in my shoulder which needed to be cleaned out immediately before it entered my blood stream. It is very serious and unfortunate when you acquire MRSA because there are not many antibiotics out there that can combat it. Not only was my body fighting the infection, but I also experienced anaphylactic shock after trying the first antibiotic. Once again, I was back in the hospital, now with one less medication to pick from out of the already very few that can overcome the infection trying to take over my body. I became septic and had to stay in the hospital longer than I would have liked on top of everything else going on. That did not help my situation.

This went on for a while. I ended up having four shoulder surgeries because the infection kept coming back. With my extremely low white blood cell count and a terrible immune system, I simply wasn't strong enough to fight it off. After the fourth surgery, they wanted to keep me in the hospital to monitor me for several days to make sure the infection was on its way out and that I was progressing. Instead, I became septic, again. My vitals were way out of control, not stable at all. My nurses were processing orders to transfer me to the ICU because there was nothing else the unit could do.

My mom was there with me. She called my dad to come to the hospital immediately. My dad walked in the room, still in his state police uniform. Once my parents received the news from the doctors, they were devastated. The doctors told them there was nothing else they could do, that my body needed to start fighting on its own. I was so out of it that day, I hardly remember it. I do remember opening my eyes for a brief moment and seeing my parents hold

each other tight while they cried. My dad doesn't cry often, so I knew that what was about to happen could not be good. I will forever remember that image. He left to go pick up my brothers from school and bring them to the hospital to say their goodbyes, if that was God's will for my life that day. My mom called others in the family, trying to keep everyone updated. Once I was transferred and settled in my room in the ICU, I was surrounded by my whole family and it lifted my spirits a little.

Days passed, and I finally became stable again. That was a great surprise for everyone because our hope was fading, as I seemed to continue downhill with every passing day. Finally, the fever broke, my hemoglobin count went up instead of down, and my blood pressure was coming up. At last, things seemed to be going in the right direction. At this point, I had spent months fighting this battle for my own life. When I was able to go home, I still had about three weeks of IV antibiotics I needed to finish. This ended up being very educational because I already knew my home healthcare nurse, and she was eager to teach me how to help myself. She taught me how to give myself the antibiotics instead of her coming to administer it every day. I learned how to rinse my line, clean it out, get blood return, and dissolve any blood clots that might have formed. I felt like a nurse, and I loved it.

This whole experience started in May of 2016 and lasted until October 2016, when my PICC (peripherally inserted central catheter) line was removed from my arm. These are long-term IVs that go straight to your heart, so they have to be kept extremely clean. Getting it taken out was a bittersweet moment for me because that line and I had been through a lot together. Getting it taken out meant that I pulled it together and beat that nasty infection. It meant that I won, I survived, and it was finally over. During those nine months, I endured many tests and procedures that no eighteen-year-old should endure. I went through a spinal tap, two bone marrow biopsies because they didn't get a good enough sample the first time (they decided to do one after all because they were trying to figure out why I had such a low white blood cell count), long stays at three different hospitals, four surgeries, two times being septic, antibiotics

that made me extremely sick, too many doctors to keep track of, and some amazing nurses that I will never forget.

I could never thank all of my nurses enough if I thanked them for the rest of my life. They were by my side through everything. They helped my bad days be not so bad. They were little rays of sunshine just when I needed them to be. They made me feel strong, courageous, cared for, and important. They made me feel like a human instead of just another one of their patients. They all knew that I wanted to be a nurse one day, so they would teach me things I could use during my nursing career. They would let me do some things on my own like placing my heart monitors, under their supervision of course. Each of the five stickers that went on my chest was a different color, and I just didn't know how they remembered which ones went where. So, they told me, "Smoke (grey) is over fire (red), and snow (white) is over grass (green) and the brown is an oddball, so it just goes in the middle." I was so amazed and thankful. To this day, I still remember the order because of that little trick they taught me. They would bring me puzzles and games to play when they came to check on me so I would not be bored all day. They shared their stories with me about how and why they became nurses themselves. Most of them were genuine, selfless, caring and really wanted to help me feel better. The day I was transferred to the ICU, I had a nurse who was working quickly and diligently, running too many tests to keep track of, trying to figure out what was going on with my body and why my vitals were not stable. I know that had to be extremely stressful on her and a very busy day for her, but she still took the time to make me feel like a person, not just a sick patient.

My nurses were not all this amazing, though. I had mostly good nurses, but I did also have a few bad nurses. It seemed like they didn't really care how I felt; they were just there to make a living. The day I became septic and had to be transferred to the ICU, my amazing nurse's shift had just ended, and my terrible nurse's shift had just begun. I was throwing up everywhere. I couldn't get it to stop or keep anything down, so my mom got my nurse to come in and give me some medicine that would settle my stomach. The nurse kept refusing to give me

IV medication; she wanted to give me something orally even though I was throwing up and couldn't keep anything down, not even water. I just wanted to scream, "Are you oblivious or just not paying attention to me?" Finally, something knocked some sense into her. I am not sure if it was my angry mother, who is scary, or what, but she did eventually give me IV medication after I had thrown up the pill that she made me take. No, I did not necessarily like her, but because of her I also experienced the frustration of having a bad nurse, and I know I never want to be like that. I gained a tremendous amount of knowledge from my nurses, good and bad ones, that I can take forward with me into my nursing career.

I have experienced what it feels like to be the family member of a patient and to be the patient. I can now use those experiences to put into perspective what my future patients and their families feel and truly be empathetic toward them. I see these two stories as a blessing in disguise now because I can finally give a full and meaningful answer to the question, "Why am I here?" I want to make my patients feel how my nurses made me feel when I was going through those terrible situations. I want to be one of the good nurses.



Understanding the Prevalence, Treatments Options, and What Health Care Providers Should Consider When Providing Care to Individuals with PTSD: A Literature Review

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**Abstract**

This paper explores Post-Traumatic Stress Disorder (PTSD) as explored by three separate studies done by Perrin et al. (2014), Blaauwendraat, Berg, and Gyllensten (2017), and Kelsch (2017), respectively. Each of these studies focuses on one of three separate aspects of PTSD: prevalence, treatment options, and provider considerations. Perrin et al. (2014) explore the prevalence, likelihood, and events that can lead to PTSD. Blaauwendraat et al. (2017) analyze the effectiveness of Basic Body Awareness Therapy (BBAT) treatment for PTSD patients. Kelsch (2017) outlines techniques and considerations that health care providers could use when treating a patient with PTSD, specifically focusing on the dental profession. This paper summarizes these articles to help understand PTSD as a whole, going from the prevalence/possible causes to upcoming treatment options, and considerations that providers should take when caring for patients with PTSD.

*Keywords:* Post-traumatic stress disorder/PTSD, Basic Body Awareness Therapy/BBAT, triggers, stressors, violence, effects, therapy

Post-Traumatic Stress Disorder (PTSD) is developed through exposure to extreme traumatic stressors and ultimately affects an individual's physical and mental wellbeing. It is crucial for health care providers to understand the prevalence of PTSD and possible treatment options that they can refer to their patients. In addition, health care providers need to take into consideration the way they provide care in order to prevent triggering the patient. Perrin et al. (2014) provide a basis for understanding the prevalence of PTSD and the likelihood of an individual developing PTSD during their life. Blaauwendraat, Berg, and Gyllensten (2017) explore a possible therapy that aims to help treat both the physical and mental effects of the disorder. Lastly, Kelsch (2017) hones in on considerations that providers should account for when providing care for a patient with the disorder.

Across multiple countries, 20-90% of the population has been exposed to extreme traumatic stressors at least once in their life, but only one-tenth of the individuals that are exposed to these stressors develop PTSD (Perrin et al., 2014). The type of trauma that an individual experiences or witnesses impacts whether or not the individual will develop PTSD. For example, assaultive violence holds one of the highest risks of developing PTSD (Perrin et al., 2014). Different types of trauma also lead to increased risk depending on gender; for males, witnessing a death or injury or being exposed to combat was associative to higher rates of PTSD, while for females it was sexual molestation (Perrin et al., 2014). Perrin et al. (2014) focus their study on determining:

(1) the lifetime prevalence of exposure both to traumatic events and PTSD, and (2) simultaneously assess the large array of factors potentially involved in the development of PTSD including socio-demographic characteristics, the specific type of exposure, preexisting psychiatric disorders, family history of disorders, personality features and coping style. (p. 450)

The study utilized The Diagnostic Interview for Genetic Studies (DIGS), in addition to several other mental health screening tools and tests, and administered it to a random sample

within an urban community (Perrin et al., 2014). The NIMH Molecular Genetics Initiative developed the DIGS to achieve a more specific assessment of phenotypes through a broad spectrum of DSM-IV Axis-I criteria (Perrin et al., 2014). DIGS was completed with the PTSD and generalized anxiety (GAD) portions of the French version of the Schedule for Affective Disorders and Schizophrenia—lifetime and anxiety disorder (SADS-LA) (Perrin et al., 2014).

The results of the study were divided into three categories: 1) Lifetime prevalence of exposure to traumatic events and lifetime and 12-month prevalence of PTSD, 2) Lifetime risk of PTSD by type of traumatic exposure, and 3) Risk factors for lifetime development of PTSD (Perrin et al., 2014). Using DIGS, Perrin et al. (2014) found that in the lifetime prevalence of exposure to traumatic events and lifetime and 12-month prevalence of PTSD category, 5% of the participants met the requirements for a lifetime diagnosis of PTSD and that women were twice as likely to meet these requirements. The lifetime risk of PTSD by type of traumatic exposure category found that women were twice as likely to develop PTSD as men after being exposed to a traumatic event (Perrin et al., 2014). With the exception of witnessing violence, accidents, or war, the probability of developing PTSD after being exposed to a specific type of trauma did not vary by sex (Perrin et al., 2014). Within the category of Risk factors for the lifetime development of PTSD, an individual's risk was higher after sexual trauma, exposure to crime, and witnessing violence; the highest risk was after sexual abuse (Perrin et al., 2014). Surprisingly, exposure to war was not associated with the risk of developing PTSD (Perrin et al., 2014). Preexisting psychopathology in addition to exposure to a trauma greatly increased an individual's likelihood of developing PTSD (Perrin et al., 2014).

Perrin et al. (2014) found that the risk of developing PTSD after exposure to a traumatic event was dependent on several factors, including the type of trauma one was exposed to, preexisting psychopathology, personality features, and coping strategies. Each of these factors also independently contributes to an individual's risk for PTSD (Perrin et al., 2014). The authors concluded that more research was necessary to understand how personality traits, coping

behaviors, and early manifestation of psychopathology all affect the likelihood for developing PTSD following a traumatic experience, from youth through adolescence and early adulthood (Perrin et al., 2014).

Patients with PTSD often experience the effects of what their trauma has done in their nervous system, which can include: pain, muscle tension, other physical sensations, and the residual effects of emotions brought on by triggers of their trauma (Blaauwendraat et al., 2017). There are four areas of symptoms that help in diagnosing PTSD: re-experiencing, avoidance, negative cognitions/mood, and hyperarousal, all of which still impact the patient and disrupt their daily life at least one month after their traumatic experience (Blaauwendraat et al., 2017). Traumatic events or experiences are defined as “as extremely stressing situations that threaten one’s life, health or personal integrity or as witnessing violent events, or unexpected or violent death of close family or friends” (Blaauwendraat et al., 2017, pp. 515). Treatments for PTSD include different types of psychotherapy, but very few address the physical consequences of PTSD. Blaauwendraat et al. (2017) focus their study around the use of Basic Body Awareness Therapy (BBAT), which was formed in Scandinavia within the last 30 years and has roots in the eastern tradition of body movement and holistic care. BBAT is considered a holistic physiotherapeutic treatment modality because it utilizes simple exercises, stillness, and structured massage to help normalize the patient’s posture, breathing, balance, and coordination (Blaauwendraat et al., 2017).

This particular study incorporated both quantitative and qualitative data into its research from a baseline, after the introduction of treatment (12 sessions of BBAT), and a one-year follow up, organized as T0, T1, and T2, consecutively (Blaauwendraat et al., 2017). Patients were chosen from a psychiatric clinic in Sweden between 2012 and 2013, and had been exposed to one or more traumatic events, including: accidents, sexual, physical, and mental abuse, rape, sudden death of loved ones, robbery, operations, and kidnapping (Blaauwendraat et al., 2017). Patients presented with both mental and physical PTSD symptoms. In order to be included,

patients had to be at least 18 yrs. old, able to accurately distinguish their traumatic experiences (if there were more than one), and present physical symptoms such as pain, muscle tension, and breathing problems related to their PTSD. Patients with a history of drug or alcohol abuse, acute psychosis, major depressive disorder, and active presentation of suicidal thoughts were excluded from the study (Blaauwendraat et al., 2017). The 12 BBAT treatments would occur once a week and last 50 minutes, and if the patient had other treatments going on simultaneously, those treatments would continue as usual. In order to measure the data, a Body Awareness Scale Movement Quality and Experience test (BAS MQ-E) was used, which consists of 23 items in three subscales. The first of the subscales is stability in function (SF) to evaluate a patient's functional ability and stability in movement (Blaauwendraat et al., 2017). Second is coordination/breathing (CB) involving the distribution of breathing, coordination in movements and breathing (Blaauwendraat et al., 2017). Lastly, relating/awareness (RA) evaluated the patient's relationship with themselves and the test leader, and observed the patient's activity and its relationship with their awareness (Blaauwendraat et al., 2017). Other tests that were utilized were the Visual Analog Scale (VAS) to assess experienced pain when movement occurred, and an Impact of Event Scale-Revised (IES-R) to measure PTSD symptoms (Blaauwendraat et al., 2017).

The quantitative results of the data found significant improvements across the board for the patients. Initially, 62% of the patients were on full or partial sick leave due to PTSD, which number decreased to 46% after the introduction of BBAT and to 31% at the one-year follow up (Blaauwendraat et al., 2017). Patients also experienced improvement in their bodily experiences and symptoms, pain reduction, and reduction of the influence that their event had on their lives (Blaauwendraat et al., 2017). Qualitative data was assessed in five categories: stability and balance, coordination, breathing, change of position, and awareness, each containing their own subcategories. With the exception of stability and balance, there was an improvement in all of the categories. One of the few adverse outcomes was that patients felt as though their muscles

had weakened between the beginning and up to the one-year follow-up because their muscles had not been used consistently.

Blaauwendraat et al. (2017) found that implementing BBAT, in addition to continuing any ongoing treatment as usual, provided significant improvement of PTSD symptoms. The study also found that the quality of patients' movements and body experiences had significantly improved, along with a reduction of pain (Blaauwendraat et al., 2017). Blaauwendraat et al., (2017) stress that more research is necessary, especially within a randomized population of individuals with PTSD, to see if BBAT therapy is effective.

Because of the effect of their traumatic experiences, individuals with PTSD are often less compliant with medical treatment and can be triggered easily, especially when undergoing dental treatment, where the patient is in a very vulnerable position. Kelsch (2017) explores what health care providers, specifically dental, can review and take into consideration when treating a patient with PTSD. Kelsch (2017) sets up a system for providers so that the patient's visit can be successful, beginning with the provider having an understanding of fight or flight and PTSD's effect on the immune system and how it could impact treatment. Additionally, Kelsch (2017) identifies common dental concerns among PTSD patients, including grinding or clenching teeth, which can wear away at the tooth surface near the gum line. Furthermore, patients with PTSD will present with tooth loss (which can be in part due to clenching or grinding of the teeth), higher levels of biofilm, and excess dental caries (Kelsch, 2017). Once a patient comes to a dental care provider, they are more likely to be visiting due to the physical symptoms (i.e., pain) and may not have addressed the psychological symptoms (Kelsch, 2017). It is imperative for providers to remember that treatment can both lead to the development of PTSD or act as a trigger, and must implement a safe environment in a treatment that might allow for exposure to triggers (Kelsch, 2017).

Before the first meeting, the provider should create a medical team for their treatment that includes the patient's mental health provider and physician, in order to form a treatment

option for the patient to achieve the best outcome (Kelsch, 2017). When the first meeting comes, all of the members of the health care team need to be mindful of verbal and nonverbal interactions with the patient in order to limit triggering or appearing condescending to the patient (Kelsch, 2017). Kelsch (2017) suggests asking the patient questions about parts of the treatment that may be uncomfortable or triggering to them and allowing the patient an opportunity to voice concerns or needs that they have (i.e., being alerted when a sharp instrument is about to be used) (Kelsch, 2017). Additionally, adjusting the procedure or treatment can impact the number of triggers for the patient. For example, one may adjust the chair so that the patient is not supine, provide frequent breaks throughout treatment, or use reassuring stimuli (Kelsch, 2017). Kelsch (2017) emphasizes that success at one appointment does not guarantee future appointment success and that communication between the patient and provider is imperative. The provider should ask about areas of improvement or what can be altered or reinstated in future appointments. Kelsch (2017) concludes the article by advocating for provider education on PTSD, which can inform them about what they can do to best help their patients struggling with this disorder, and provides a list of helpful hints and resources for treating these individuals.

#### Discussion

Each of these studies works with one another to help form a better understanding of what PTSD is, what treatment options available, and what providers should consider. Perrin et al. (2014) consider the different type of stressors that can lead to PTSD throughout an individual's life span. During their research, Perrin et al. (2014) found that one's risk for developing PTSD was in part due to several factors including one's personality, coping strategies, and any previous psychopathology. Perrin et al. (2014) found that further research may be needed to assess different groups within the population. Specifically, researchers should follow youth through early adulthood to see whether the risk of developing PTSD is



affected by early onset of another disorder, along with the patient's coping and personality during this period of development (Perrin et al. 2014). Blaauwendraat et al. (2017) explored the BBAT treatment for individuals with PTSD and its effectiveness. Blaauwendraat et al. (2017) concluded that further research would be necessary to determine the efficacy of BBAT treatment, especially in individuals who may drop out the treatment program. Kelsch (2017) reported no limitations or area of further research.

#### Conclusion

PTSD is a complex disorder that can be caused by different factors throughout an individual's life. Exploring various therapy options can help manage/treat one's PTSD. Additionally, healthcare providers need to take into consideration how a patient's PTSD may affect their care and consider what they can do to minimize triggers and adverse experiences for the patients. For all current and future health care providers, it is essential to conduct further research on approaches to treating both patients with PTSD and their families.

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Contributions to and Outcomes of the Global Nursing Shortage: Integrative Research Review

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**Objective:** To investigate a selection of three scholarly sources that evaluate the effects of the shortage of qualified nurses in hospitals and healthcare, with emphasis on the global shortage epidemic.

**Design:** An integrative research review of literature evaluating the effects of the shortage of qualified nurses.

**Data Sources and Review Method:** CINAHL with full text (via EBSCO), peer-reviewed, scholarly journals and articles, published between 2009 and 2019.

**Results:** Six articles had initially been reviewed – all researched the effects of a nursing shortage. Two were discarded because they referred to particular countries or areas rather than the entire global issue. These articles did not fit the objective for this integrative research review. In addition, a third article was discarded because it focused solely on the effects of the nursing shortage in operating rooms. The other three articles highlighted the effects of the nursing shortage in a variety of areas within the nursing role spectrum and proposed possible solutions to the causes of the nursing shortage. These fit the criteria for the design of this integrative research review. Some of the articles examined seem to focus on particular areas in the nursing field, but the authors expand the data and conclusions to make connections to the global issue. All tie together to review the contributions to and outcomes of the global nursing shortage.

#### **What is already known?**

- A lack of qualified nurses limits the number of nurses prepared to provide safe, quality care in many different kinds of settings.
- More than 1 million nurses are expected to retire within the next 10 years.
- The outcomes of care are directly affected by the number and quality of nurses available.

#### **What does this paper add?**

- Suggests that a significant reason for the nursing shortage might be connected to burnout syndrome in hospital registered nurses.
- Shows how the shortage spreads through all areas of nursing; the negative effect is especially seen in home healthcare, with family caregivers and individuals receiving palliative care.
- Offers broader opinions about potential solutions to solve the issue of staffing nurses and the retention rate.

### **Expositional Summary: Status of the Global Nursing Faculty Shortage**

This particular study (Gyrko & Nardi, 2017) refers to the global nursing shortage as an epidemic and a major generational crisis. In addition, the article authored by Bakhamis, Coustasse, and Smith (2019) was used as a supplemental text to provide more well-rounded information about the status of the nursing shortage. The initial study lays out the primary reasons for why nurses are important. Some of these include having a care manager role, being an educator, and providing sufficient healthcare to those in need (Gyrko & Nardi, 2017), which make up the baseline of healthcare and what it means to be a healthcare provider. The authors establish that the role of a nurse is often so much more than what others believe it to be and that nurses are absolutely necessary for the success of any healthcare system. In addition, the baseline for this systematic review was to explore the shortage of academically qualified faculty available to teach in schools of nursing. This is further elaborated as the most significant cause of the modern nursing shortage. Because of the lack of nursing educators and faculty, clinical sites, and inadequate education budgets “over 75,000 qualified applicants to nursing programs in the United States alone are turned away each year” (Gyrko & Nardi, 2017, p. 235).

According to Gyrko and Nardi, and the databases analyzed in their review, many of these qualified applicants are turned away because of the “global migration of nurses, a persistent devaluation of faculty by academic programs, no incentives, and a reduction in available faculty positions” (Gyrko & Nardi, 2017, p. 237).

Because of this global migration, which is later defined as the constant movement of and need for more nurses in different areas, it would be appropriate to call it the nursing shortage an epidemic. Usually, an epidemic would be defined colloquially as a widespread, rampant situation, but Bakhamis et al. (2019) use the term in its literal meaning of a far-reaching infectious disease. They use this term specifically to emphasize that the shortage of nurses is disastrous and can lead to many problems in the future, especially when the current generation of one million nurses retire. This generation grew up in a time when it was really only acceptable for women to become teachers or nurses, according to societal standards. This is why we see this boom in the number of nurses in this older generation. Modern culture does not necessarily demand the same number of nurses because there is not this same societal expectation, and the United States has not recently been faced with foreign policy issues like war that might also demand a need for more nurses and in a faster period of time. Bakhamis et al. (2019) expand on the epidemic crisis that Gyurko and Nardi (2017) touch on slightly. The results of this review can be used to design and implement strategies to end this recession of nurses, and it should begin with addressing the problems at the root – the lack of academically prestigious faculty to teach in schools of nursing.

### **Expositional Summary: Home Healthcare**

The next article (Bace et al., 2018) primarily focuses on the impact of the nursing shortage in areas like hospice and home healthcare. This is significant because end-of-life healthcare is more steadily moving into the home because people want to pass away surrounded by comfort and the people they love. The progress of technology allows for patients to be stable in the home environment, and it is then the role of nurses to manage patient care in that setting. In turn, the shortage of nurses in this area leads to distress in patient care because when a nurse has an overload of patients, the patients are not receiving the best quality of care, which is not necessarily the nurse's fault. While technology progresses, humankind cannot always keep up. This technology also requires trained nurses who understand it and are comfortable using it in

the home. For example, “a patient dependent on respiratory technology (identified as any patient not on room air or nasal cannula) identified a gap in nursing hours received and assigned were 6.1 (1.4, 26.0) times greater than a person on room air” (Bace et al., 2018, p. 262). In turn, need for medical technology expertise does not entice nurses to enter this field of work.

This ultimately leads to stress for the patient’s family. The following statistics emphasize the stress placed on family members who do not have inpatient nursing coverage: “Families reported spending an average of 10 h/mo (range, 0-30 hours; median, 17 h/mo) completing paperwork and phone calls in order to coordinate home nursing coverage...” Furthermore, “[s]tress level for ability to focus on parenting other children based on home health nursing access was reported as 4.9/10; that for adult couple unity based on home health nurse access was 5.3/10; and that for parents’ own ability to work/pursue employment based on home health nursing access was 6.0/10” (Bace et al., 2018, 262-263). Ideas to solve this issue include promotion within the home healthcare system to attract more nurses to the area, particularly ones with knowledge about technology advancements. To do this, incentives and training should be offered.

### **Expositional Summary: Nursing Residency Programs**

Similarly to the systemic review discussed in the first expositional summary, the article written by Bakhamis, Coustasse, and Smith (2019) contributes to the discussion about the topics within this next systemic review (Ackerson & Stiles, 2013) as well, particularly focusing on nursing residency programs and burnout. Ackerson & Stiles’s (2013) systemic review on nursing residency programs initially discusses the results from interviews with first-year nurses regarding their stress level. The most common response among these individuals indicated the following: “The complexity of the environment often leads to high stress levels for the new RN and as a result leads to higher turnover,” and “they require additional resources to enable a smooth and successful transition from student to professional” and most urgently want

“additional skills and knowledge but also the peer support and mentorship needed for the transition” (Ackerson & Stiles, 2013, p. 144).

Developing residency programs aids with all of these needs in the first year of being a nurse, but when the support is withdrawn at the beginning of the second year, the statistics and retention rate return to what is expected for new nurses without residency programs aiding their emotional needs. The stress and responsibility required from nurses, combined with the fact that the area that they work in is tremendously understaffed, is unhealthy. Regardless of the field, being overworked and stressed almost all of the time negatively impacts how you feel about the job that you are doing. The supplemental article (Bakhamis et al., 2019) refers to burnout syndrome – something that has been common among nurses, who are typically overworked. Statistics show that burnout occurs most often in nurses who have worked five years or less, and the article then provides a potential explanation for why: Newer, unexperienced nurses are still struggling to find ground and establish themselves. Having to hit the ground running completely interrupts these new nurses’ ability to learn and grow. On top of that, everyone else working on the floor does not have time to teach and help establish these new nurses. Burnout in turn leads to nurses pursuing other career paths that are less demanding.

### **Synthesis**

When searching for consensus among all the articles that were reviewed, the most significant thing that stood out was that the shortage of nurses most often leads to negative outcomes. Most of the information provided offers potential solutions, but there is no formulation or plan that can be implemented to stop the progression of the shortage of nurses. The lack of qualified faculty to teach students, burnout, and the negative retention rate are all factors that contribute to the shortage of nursing staff. The gaps in available care, whether that be in home healthcare or anywhere else, are examples that explain the effect this nursing shortage has on the medical community and the people receiving healthcare services.



**Table 1 (Summary of Papers Reviewed)**

<b>Authors</b>	<b>Focus</b>	<b>Participants and/or Measures</b>	<b>Results</b>	<b>Conclusions</b>
Gyurko & Nardi	There is a shortage of academically qualified faculty to teach in schools of nursing. This is one of, if not the most, significant causes of the shortage of qualified nurses.	A systematic review examining already proposed solutions to the global shortage of nursing faculty. In addition, the results of this review can (and should, according to the authors) be used as a rubric to design and develop strategies to end the nursing faculty shortage.	Many factors contribute to this nursing faculty shortage, including the global migration of nurses, a persistent devaluation of faculty by academic programs, lack of incentives, and a reduction in available faculty positions.	There is a much needed change in direction and approach to solving the nursing faculty shortage. If these issues are resolved, it will develop a firm foundation for educating potential new nurses.
Bace et al.	On top of a global nursing epidemic, there is a gap in home nursing care available to children. Although a very focused topic, the aspects of the article are applied to home healthcare in general: patients are not receiving enough hands-on time from the nurse, which affects the lives of everyone involved.	Families receiving inpatient care and consultation were asked to complete a survey about their perceived home health nursing needs and their experiences accessing home health nursing.	Most often, family members would be the ones to spend a majority of their time providing the equivalent of what hands-on nurses should be doing. This in turn adversely affected parental employment and led to a significantly higher stress level. The lengths to which a family has to go to get an in-home nurse is extreme because these nurses are few and far between, or they have so many patients that it would be impossible to	Families do not receive the allocated amount of nursing hours in the home healthcare setting. Home healthcare should work to attract more nurses to the field, particularly ones with knowledge about advancements in technology. To do this, incentives and training should be offered.

			provide competent care.	
Ackerson & Stiles	The retention of new nurses is important because so many are expected soon to retire. The object of this review was to compare the effectiveness of nursing residency programs and the retention rate of nurses.	A systematic review examining the importance of nurse retention, especially after the retirement of many older nurses. A collective search was done through a multitude of credible databases using a combination of key words related to the topic. The focus was on nurses in a hospital environment.	Twenty-six articles met the inclusion criteria, and most studies were very descriptive. Overall, residency programs increased retention in the first year of a new nurse's career but were not able to sustain that retention in subsequent years.	Future research should focus on finding solutions for retention past year one. Further studies need to explore the effects of nursing residency on retention.
Bakhamis et al.	A study and literary paper written on the causes and consequences of nursing burnout – a state of emotional exhaustion.	A literature review that collects and analyzes multiple articles about nursing burnout and turnover rate.	Emotional exhaustion and fatigue are most notable among nurses. RNs who had experienced depersonalization claimed it might be caused by excessive job demands, which cause disengagement from work.	Burnout has become a worldwide phenomenon. It negatively affects the quality of care and the number of nurses who want to remain in the field. The study focuses on continuing the search for complete solutions to this now global epidemic and somewhat provides optimism for the future.

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Hypertension: Three Studies Behind a Recommendation from the American Heart Association  
Guideline

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**Abstract**

The 2016 clinical guidelines published by the American Heart Association outlines a recommendation for the management of hypertension and risk of heart failure. They suggest that hypertension should be controlled to lower risk of heart failure. The research by Hansson et al. (1999), Moser and Hebert (1996), and Staessen et al. (1997) provide evidence on the importance of treating patients with hypertension, the subjects who were treated, and the drugs used to treat hypertension. These three studies provide valuable information about hypertension that supports the recommendation's grading of class I in size of treatment effect and a level A in certainty (precision) of treatment effect because all of the trials are consistent with this recommendation.

### Hypertension: Three Studies Behind the Guideline

The 2016 clinical guidelines published by the American Heart Association outline strategies for the management of hypertension and mitigating the risk of heart failure. In many countries, hypertension has become an epidemic with around 50% of the population over the age of 60 experiencing hypertension (Bozkurt et al., 2016). Hypertension is defined as having a continually elevated blood pressure (BP) exceeding 140/90 mm Hg. Patients with hypertension are at risk for cardiovascular death. The elevated levels of both diastolic and systolic BP increase the risk for patients to develop congestive heart failure. To help control this problem, the 2016 guideline recommends that “hypertension should be controlled in accordance with contemporary guidelines to lower the risk of development of HF [heart failure]” (Bozkurt et al., 2016, p. 537). This recommendation is graded a class-I in size of treatment effect and level A in certainty (precision) of treatment effect. The guideline recognizes that the recommendation is useful and effective and that there is sufficient evidence from multiple randomized trials to support this recommendation (Bozkurt et al., 2016). This review examines how three articles cited in the American Heart Association guideline support the recommendation regarding hypertension in correlation to heart failure. This paper will summarize three studies by Hansson et al. (1999), Moser and Hebert (1996), and Staessen et al. (1997) and examine the relationship between the articles and the guideline by discussing methods for lowering blood pressure, the importance of treating hypertension, and the subjects studied.

### Review of Studies

Each study treats patients with hypertension to determine if elevated blood pressure is associated with patients' cardiovascular mortality rate. In the first article outlined in appendix A, Hansson et al. (1999) perform a study on elderly patients in Sweden to determine the effects of the old versus the new antihypertensive drugs. The researchers found a decrease in blood pressure of around 34.8/16.6 mm Hg after 24 months of treatment of all three drugs. They showed that the decrease in blood pressure is very important for the prevention of fatal and

non-fatal cardiovascular events in elderly patients with hypertension. However, they are not able to provide any benefits to some classes of antihypertensive drugs over others. In the second article outlined in appendix B, Moser and Hebert (1996) analyze all the major long-term hypertension treatment trials over the past 20 years. Through this analysis, they showed that lowering a patient's blood pressure over a span of three to five years is effective in preventing severe disease, left ventricular hypertrophy, and congestive heart failure. In the final article outlined in appendix C, Staessen et al. (1997) perform a study showing the effects of treating elderly patients with isolated systolic hypertension. The patients are either treated for hypertension or given a matching placebo drug. They conclude that treating hypertension with an antihypertensive drug starting with nitrendipine reduces the rate of cardiovascular hypertension.

#### **Relationship Between the Articles and the Guideline**

To support the recommendation made by the American Heart Association guideline, Hansson et al. (1999), Moser and Hebert (1996), and Staessen et al. (1997) are all cited as evidence as to why the recommendation should be supported. In supporting the guideline's recommendation, each of the articles discuss how important it is to treat hypertension not only to prevent heart failure but to prevent other ailments as well. The wide range of subjects studied and the variety of treatment options that each study provided show the importance of treating hypertension in all patients rather than only those in the specific treatment course. Each study finds that lowering blood pressure, despite the drug or type of person, does lower most patients' risk for heart failure.

#### **Importance of Treating Hypertension**

The frequency of hypertension increases with age. Each study performed focuses on the importance of treating hypertension. Staessen et al. (1997) found that 8% of people in their 70s have hypertension, and the rate increases to 25% among those aged 80 years or older. Their supporting evidence shows that active treatment of high blood pressure can reduce

cardiovascular complications. Hansson et al. (1999) also illustrate many benefits for treating hypertension, finding that the treatment of high blood pressure and its positive effects are well documented in prospective intervention studies. Moser and Hebert (1996) understand based on background research that lowering BP in hypertension patients reduces morbidity and mortality from strokes and myocardial infarction. Also, 40% of deaths from hypertension result from congestive heart failure. All three studies' background research further supports the importance of treating hypertension in patients by outlining the risks associated with hypertension.

### **Subjects Studied**

Hypertension is most common among the elderly, but it can occur in anyone. Staessen et al. (1997) found in their background research that 15% of people over the age of 60 years have isolated systolic hypertension. As a result, only patients above 60 years old are eligible for this study. Nevertheless, they do study patients from a variety of countries. Furthermore, Hansson et al. (1999) studied Swedish patients between the ages of 70 and 84. Although both Staessen et al. (1997) and Hansson et al. (1999) only studied elderly patients, Moser and Hebert (1996) reviewed trials that differed greatly in size and characteristics. This study strongly supports the recommendation since it has a robust range of data and did not limit its field to only one country or age group. Moser and Hebert's article is a systematic review of past trials and provided high-level evidence with a great variety of subjects studied.

### **Methods for Lowering Blood Pressure**

Hansson et al. (1999) and Staessen et al. (1997) both included their methods for lowering blood pressure by including the drugs used during the trials. Moser and Hebert (1996) ran a study based off of previous studies. However, all of the studies used diuretics either as initial monotherapy or as one of the two first-step treatments. Most of these studies had a treatment group and a control or placebo group. Hansson et al. (1999) assigned active antihypertensive treatment to their patients. However, they used one of three potential drugs to treat the patients' hypertension. Patients were given either a conventional drug, angiotensin-



converting-enzyme (ACE) inhibitors, or calcium antagonists. All three methods had the same effect on lowering the patients' blood pressure. Staessen et al. (1997) had one treatment group and one placebo group. The active treatment group was started with nitrendipine and, if necessary, this drug was combined with or replaced by enalapril, hydrochlorothiazide, or both. The researchers' goal was to reduce the sitting systolic pressure by at least 20 mm Hg. The two studies that did include the drugs used both used different ones, and one study used three different drugs. This showed that the method to reduce blood pressure is not as significant as it is to simply reduce the blood pressure to help improve cardiovascular health.

### **Conclusion**

Each of the studies found that lowering blood pressure in hypertension patients led to a decrease in cardiovascular mortality rates. Both studies that specified which drugs are used find different drug use to be effective in supporting the guideline's recommendation. Only Moser and Hebert (1996) looked at all age ranges while compiling their data from many different studies. Furthermore, Hansson et al. (1999) and Staessen et al. (1997) performed randomized controlled trials in their studies. This is unfiltered information, but it still provides the recommendation with mid- to upper-level evidence. Moser and Hebert (1996) wrote their article based off of many previous studies. These articles offered the guideline with high-level evidence toward their recommendation. The research suggests that the recommendation should be graded a class I in size of treatment effect and a level A in certainty (precision) of treatment effect since all of the trials were consistent with this recommendation. All three articles strongly support this guideline's recommendation and had mid- to high-level evidence.

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*Appendix A: Hansson et al. (1999)*

Source	Participants	Focus	Methods	Results	Quantitative & Qualitative Analysis	Conclusion
<p><b>November 1999</b>  <i>Randomised trial of old and new antihypertensive drugs in elderly patients: cardiovascular mortality and morbidity the Swedish Trial in Old Patients with Hypertension-2 study</i></p>	<p>6614 patients aged 70–84 years with hypertension (blood pressure <math>\geq 180</math> mm Hg systolic, <math>\geq 105</math> mm Hg diastolic, or both</p>	<p>They compared the effects of conventional and newer antihypertensive drugs on cardiovascular mortality and morbidity in elderly patients.</p>	<p>Patients were randomly assigned treatment with one of three classes of drugs: conventional antihypertensive drugs, ACE inhibitors, or calcium antagonists. The patient's BP was measured in supine position after five minutes of rest. They saw patients twice yearly to take their BP and heart rate.</p>	<p>Blood pressure was decreased similarly in all treatment groups. The primary combined endpoint of fatal stroke, fatal myocardial infarction, and other fatal cardiovascular disease occurred in 221 of 2213 patients in the conventional drugs group and in 438 of 4401 in the newer drugs group.</p>	<p>The study was designed to have a statistical power of 90% to detect a 25% difference in cardiovascular mortality in a two-sided test. They needed at least 6600 patients to monitor over a span of four years.</p>	<p>Old and new antihypertensive drugs were similar in prevention of cardiovascular mortality or major events. Decrease in blood pressure was of major importance for the prevention of cardiovascular events.</p>

*Appendix B: Moser and Hebert (1996)*

Source	Participants	Focus	Methods	Results	Quantitative & Qualitative Analysis	Conclusion
<p><b>April 1996</b>  <i>Prevention of disease progression, left ventricular hypertrophy and congestive heart failure in hypertension treatment trials</i></p>	<p>Thousands of participants across hypertension treatment trails over the past 20 years.</p>	<p>The work was done to determine the role of hypertension treatment and prevention of disease progression, left ventricular hypertrophy and congestive heart failure.</p>	<p>They calculated typical odds ratios for the incidence of congestive heart failure and left ventricular hypertrophy.</p>	<p>It was found that the treatment groups had less severe hypertension, less instances of hypertrophy and less congestive heart failure.</p>	<p>1,493 of 13,342 in the control group and 95 of 13,389 the treated group progressed from less severe to severe hypertension. The incidence of left ventricular hypertrophy in treated compared with placebo subjects was 140 of 6,150 and 216 of 6,098, respectively. 240 of 6,923 subjects in control groups compared with only 112 of 6,914 treated subjects had congestive heart failure occur.</p>	<p>Lowering blood pressure is effective in preventing severe disease, left ventricular hypertrophy and congestive heart failure in addition to strokes and myocardial infarction.</p>

*Appendix C: Staessen et al. (1997)*

Source	Participants	Focus	Methods	Results	Quantitative & Qualitative Analysis	Conclusion
<p><b>September 1997</b></p> <p><i>Randomized double-blind comparison of placebo and active treatment for older patients with isolated systolic hypertension</i></p>	<p>4695 randomized patients over the age of 60, with 2297 receiving the placebo and 2398 receiving the active treatment</p>	<p>Their focus was to compare the treatment of systolic hypertension to no treatment in older patients.</p>	<p>All patients started on masked placebo. 4695 patients were randomly assigned to nitrendipine 10-40 mg daily, with some getting the addition of enalapril 5-20 mg daily and hydrochlorothiazide 12.5-25.0 mg daily, or matching placebos.</p>	<p>The sitting systolic and diastolic blood pressures had fallen by 13 mm Hg and 2 mm Hg in the placebo group and by 23 mm Hg and 7 mm Hg in the active treatment group. The active group reduced the total rate of stroke from 13.7 to 7.9 endpoints. Cardiovascular mortality was slightly lower on active treatment.</p>	<p>There was a 42% reduction in blood pressure from treatment. Non-fatal stroke decreased by 44% in the active treatment group.</p>	<p>Among elderly patients with isolated systolic hypertension, antihypertensive drug treatment starting with nitrendipine reduces the rate of cardiovascular complications.</p>