Special Supplement 2024

South Dakota medicine

HUMANITIES SUPPLEMENT

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The Choices We Make and Why Humanities Matter

Jerome W. Freeman, MD, FACP; and Tim Ridgway, MD, MACP

Sometimes unfortunate things befall us through no fault of our own. Bad luck, if you will, wins out. Various cancers and calamities of nature fit this category. But we do control much in our lives. We make choices, neglect precautions, and take risks. On occasion, we may mournfully decry our lack of foresight. Consequences can enrich or entangle us.

The humanities can serve as a beacon for options. Robert Frost's *The Road Not Taken* is a literary reflection on possibilities. And visual artist Bryan Holland frequently fashions queries and allegories into his visual artwork. *The Choices We Make*, which is currently on display in the lobby of the Health Sciences Center (HSC) in Sioux Falls, exemplifies this well. Maybe Holland's crow will devise a plan to extricate itself from the string that entangles its legs. We can only hope so because the fortunes of the crow look a bit bleak as we study the painting.

The humanities bring context and color to the study of medicine. Medical students' perspectives are broadened and enriched. They learn contours of science and technology that permit better focus. Wisdom and judgment are fostered.

USD Sanford School of Medicine (SSOM), along with other medical schools across the country, is committed to exploring the benefits that humanities bring to medical student education. The **Arts in Medicine** initiative at HSC displays artwork in the lobby, the Atrium Balcony Gallery, and the Legacy Gallery. The Wegner Library is developing plans to periodically select a **Visual Artist** to feature in the Nettleman classroom. Literary work is championed in various settings, including the Pillar 3 **Medicine and Literature** course. **MedWriters** engages interested students in reflective free writing. A **Graphic Medicine** book club is being established. The **Speaking of Health** lecture series with published authors has been initiated. A **Music in Medicine** interest group for students and faculty is underway. SSOM offers students a sophisticated four-year **Bioethics** curriculum that demonstrates how humanities content can inform students about social context and decision-making. Reflective discourse is a component of the humanities and **The Healer's Art** course has, for many years, prompted SSOM students and faculty to jointly contemplate the essence and meaning of patient care. Also, **Community Discourse** has expanded, including SSOM involvement in projects with the Dahl Arts Center and Journey Museum in Rapid City, as well as visual artist receptions at HSC. Finally, SSOM has adopted a **Kindness Initiative** as the central focus of the school's strategic plan and humanities themes are regularly utilized to advance this effort.

The Choices We Make **(Bryan Holland, 2023).**

This current Humanities Supplement to *South Dakota Medicine* is a sterling example of how humanities can enrich medical student education. Our students bring diverse interests and talents to SSOM. Highlighting student creativity can help sustain focus, commitment, and clinical wisdom.

A crucial aspect of wisdom is learning from mistakes and devising measures to circumvent bad fortune. Medical students experience plenty of situations that invite either opportune or unfortunate choices. Recurrent hurdles include burnout, passing multiple standardized tests, mastering large amounts of data and choosing a residency. While such challenges seem to threaten irrevocable consequences, time and wisdom can reveal unanticipated alternatives. Such options might include finding a better way to cope, seeking opportunity for collaboration, or avoiding an adversarial confrontation.

The major decisions medical students confront should not always be viewed as arduous obstacles. Transient complications often work themselves out. Grit and determination can help. Holland's wily crow may have a plan for the entangling string with key that is not yet apparent. Many times, pivotal choices involve adroit changes in perspective. The humanities illumine what students may otherwise fail to see. Such insights can enrich students' lives and foster their well-being.

Visual art attribution and permission: *The Choices We Make* (Bryan Holland, 2023). Image used with permission of artist granted April 9, 2024.

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The Opening of the Heart: Humanities and the Care of the Patient

Henry Travers, MD, FACP

In the 1970 movie *Love* Story, Oliver (played by Ryan O'Neal) asks, "What can you say about a 25-year-old girl who died?" In answer, we physicians can say a lot. We can talk about presentation, diagnosis, treatment, clinical course and perhaps even an autopsy. But in that sterile recitation we would miss that Oliver's question sought something incorporeal, something rooted in Hippocratic *philanthropia*[1] and expressed in works contributing to this humanities supplement of *South Dakota Medicine.* In Ruby Hawks's charcoal portrait *Young Girl in the Lap of Death* we experience the visceral sadness of our own impotence in the face of fatal illness, a compliment to Cole Tessendorf's portrait of death in prose and Rylee Honomichl's poetic foreshadowing of a family death in *When Nurses Become Photographers.* Echoing Hippocrates's *love of man*, they and their colleagues remind us that human medicine must "combine all [our] knowledge esthetically through the beauty of art"[2] to preserve our sense of self, support resilience, appreciate patients holistically, communicate well, and perceive beyond our senses.

Osler's *The Old Humanities and the New Science* (1919), Peabody's *The Care of the Patient* (1927), Albert Jonson's *The New Medicine and the Old Ethics* (1990) and the Association of American Medical Colleges's *The Fundamental Role of the Arts and Humanities in Medical Education* (2020) – to name just four works in a vast literature, some of it in the pages of this Journal[3] – all consider the humanities essential to physicians in their broad roles as healers. While some believe humanities courses better prepare one for a career in medicine when taught to undergraduates, others would have them taught primarily in medical school.[4] For the very reasons why the humanities are elemental in the making of a doctor, humanities are, as medicine is, not limited courses in time, but lifelong pursuits.

Students, perhaps more than faculty, promote the aforementioned and other benefits for medicine through the humanities. At the height of the COVID pandemic in 2020, medical student Carly Sobol from the Ohio State University College of Medicine read a paper before members of the American Osler Society. She studied empathy, resilience, and clinical skills among her contemporaries and asked "What is the role of undergraduate humanities education [in] establishing…humanism?" What she found was that such an education facilitated a student's development of a professional identity, an identity established upon empathy, critical and holistic thinking, and a tolerance for ambiguity. Students had a sense of self-worth *independent of academic performance*, compassion for patients regardless of background, cultural competence, and an understanding of the social determinants of health.

Sobol's study and Vincent's poem quoted below acknowledge that physicians are more effective healers with an understanding of themselves, asking throughout their careers the question Inui posed in *A Flag in the Wind,*[5] "Who am I becoming as I move [through] this life of service?" Effective healing embraces the self-evident view that patients suffer illness not in biological isolation, but within an environment that includes family, socioeconomic status, work, hopes, dreams, fears, and beliefs. It also includes the care giver meeting the patient within that environment, an ability that both transcends the care setting and draws its power from what kind of person the care giver has become.

The latter is not derived from the study of anatomy, biochemistry, physiology and other scientific disciplines within medicine. It comes from domains harboring images that open the heart, that teach one to write, as did Ellie Blue, "If you give a man a milkshake;" that teach one to see the doctor as both healer and patient in Kjerstin Hensley's photograph *See Thyself*; and to acquire through music what Noah Bensen and others described in *The Healing Score* "such skills as listening, observing, synthesizing, self-awareness, congeniality…"

There are, though, headwinds blowing against the humanities in the preparation of the physician. One is time in a curriculum already bursting at the seams with information to convey. The prolific writer and Kansas surgeon Arthur

Hertzler thought other things more important, saying in *Horse and Buggy Doctor,*[6] that humanities courses "only detract from the things worthwhile…the next course, I predict, will be a course in medical hemstitching or doily making."

A second is how medicine is taught. Take, for example, the "social history," a part of every student's history and physical. As Stonington et al. pointed out in 2018, a patient's social history (a description of part of the environment in which he or she experiences illness), "is often collapsed into a record of three biobehavioral exposures – to alcohol, tobacco and illicit drugs."[7] Even though we discuss illness in sociocultural settings, our expectations of the documentary content of our own OSCE and Triple Jump exercises tend not to extend beyond the three exposures. An unintended consequence of evaluative expectations may be to diminish routine attention to aspects of care reinforced by the humanities.

Felix Martí-Ibáñez in 1958 hinted at a third headwind, more worrisome than the others because it is largely out of the profession's control.

> "I saw the physician as the living paradox…concerned more with occupation than with *pre*-occupation, with quick vibrant professional reflexes. Such a physician is forced by his profession to bury his "unlived lives," to anesthetize his inner vocations, to let his other artistic gifts grow rusty, thereby shutting out many of the marvelous vistas of the world around him. The physician often lives in an enclosure with mirrored walls that reflect only the uniform images of his professional interest. Instead of so many mirrors, he needs to open windows, allowing him to see the sunny lands of the world beyond."[8]

Daniel Elkin[9] believed that scientific progress pushed the humane out of the profession's collective consciousness: "In this age when learned men of all professions are decrying our technical advance at the expense of our culture and against our wisdom, we cannot allow ourselves to be oversold by our own cleverness." In addition to demands intrinsic to medicine, the modern restructuring of medical practice indirectly deemphasizes the humanities by creating new claims on the physician's time and attention. Pellegrino and Thomasma[10] warned that "measures primarily economic in their motivation will come increasingly into conflict with the more traditional morality of medicine." Medical corporations today "are also increasingly assuming control over clinical operations…which may exert pressure on physicians to change care delivery."[11] When we alter care delivery for reasons other than to benefit the patient, we abandon the humanities-derived morality of medicine, leaving the framework of today's physician-patient relationship to find its equipoise in economics and law[12] rather than *philanthropia*.

The works presented here, primarily by students, give us all reason for optimism that these headwinds need not blow off course a profession that long has defined itself through a blending of the scientific and the liberal arts. In prose, poetry, visual arts and music, our colleagues add new dimensions to the principles teachers try to impart. Helean Barwari's *Humanities of Healing* challenges Elkin's pessimism: "Kindness remains the most human act…A reminder that healing goes beyond the sciences."

Kevin Feldhaus reflects on the physician-patient relationship exemplified by his father who "recalled the surgeons' impact on their patients but also realized this impact is reciprocated by patients to the surgeons themselves." Phebie Rossi makes compassion transitive in *Compassionate or Compassion It* through the five steps of recognition, empathy, desire to help, willingness to act, and the "warm glow after the action." Kianna Thelen's *The Healing Symphony* finds in the humanities a source of balance and resilience with music offering lessons in "the power of expression."

The effect on care givers of the patient's humanity permeates Melissa Pham's reflections on the beauty of early morning at the hospital, "where the quiet transforms into a sanctuary of reflection and healing" and connects her to the "raw humanity of each patient." Marilee Kneeland's poem *Moths* merges compassionate care with an eternal view of humanity: "nodding eyes met: understanding. where knowledge has joined hands with acceptance, where the metastatic early decomposition of a body consuming itself does not douse your flame." And Hannah Paauw's cross stitch, *The Brain, The Mind, The Person,* converts gyri and sulci into what medicine "frequently overlooks, [the brain's] role as the organ of the mind."

Care and healing conveyed by touch, the laying on of hands, is intensely personal and spiritual. In two images of hands here we see both. Mariah Shafer's *The Story Hands Tell* and Andrea Sorenson's *Helping Hands Photo* help us "see "patients with an artist's eye" and "how there are many working pieces to the simple joys of life…"

Through the humanities physicians see ourselves as we hope we are: human beings caring by choice for other human beings, bringing to that choice an interest and aptitude

for science, a love for and appreciation of humanity that is sensed more than described, and an understanding of what Edna St. Vincent Millay meant by warning us in her poem *Renascense*[13] lest we fail to nourish heart and soul for the benefit of our patients.

The world stands out on either side

No wider than the heart is wide;

Above the world is stretched the sky,—

No higher than the soul is high.

The heart can push the sea and land

Farther away on either hand;

The soul can split the sky in two,

And let the face of God shine through.

But East and West will pinch the heart

That can not keep them pushed apart;

And he whose soul is flat—the sky

Will cave in on him by and by.

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See Thy Self

Kjerstin Hensley, MD

See Thy Self was inspired by the book written by Abraham Verghese called *Cutting for Stone*. In the book, the main character states, "I don't think you can be a physician and not see yourself reflected in your patient's illness."

I was inspired to portray this quote visually with the usage of myself, a soon-to-be doctor, looking in the mirror and observing myself as the patient. The background of the framed photo of the intertwined gown and scrubs depicts the interwoven journey of the doctor and patient. The journey shows the ebb and flow of life and the level of humanity a medical worker should have with the patient.

In the years to come, I hope to use this photo as a constant reminder to put myself in the patient's shoes and to practice medicine with empathy, humility, and diligence. We are all a reflection of our current situation, and for all future medical professionals, we must always *See Thy Self* in the eyes of the patient.

Visual image/statement for final project for "Humanities and Medicine: What We Fail to See" (Neuro 825), February 2023.

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Cover photo – See Thy Self by Kjerstin Hensley, MD

Humanities Of Healing

Helean S. Barwari, MS IV; and Nathan M. Stadem, MS IV

In the midst of tests and treatments,

Kindness remains the most human act.

It bridges the gap between provider and patient,

A reminder that healing goes beyond the sciences.

A touch, a look, a moment of genuine care,

The simple words “we’re going to take care of you,”

Easing thoughts of fear and pain.

In each thoughtful gesture and quiet moment,

The true nature of care reveals itself.

Here, in the spaces between the busy routines,

We find the essence of human connection.

It’s not just the clinical skills that matter,

It’s not just the medications that treat,

It’s not just the procedures that heal,

But the empathy that makes medicine profoundly human.

About the Authors:
Helean S. Barwari, MS IV, University of South Dakota Sanford School of Medicine.
Nathan M. Stadem, MS IV, University of South Dakota Sanford School of Medicine.

Hardening

Olivia Heinecke, MS I

These paintings represent the process of atherosclerosis (the hardening/narrowing of arteries due to a buildup of plaque deposits). This disease is a prominent indicator of cardiovascular issues and heavily contributes to the classic symptoms. I wanted to explore how the disease physically looks inside of the body. The underlying message is to show how atherosclerosis is reflected on the outside via an individual's lifestyle and ability. The first in the series is the circular artery. Containing no plaque, it has a great deal of flexibility. Ideally, it can move however it wants, which is also true for the individual. Gradually we start to see more and more plaque deposits; consequently, decreasing the flexibility. In some places, the artery has become more linear and rigid signifying less freedoms for the artery and individual. Finally, there is the completely horizontal form of the artery. It is on one determined path with little freedoms internally or externally.

About the Author:
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20" X 20" acrylic paint on canvas.

The Healing Score

Noah Bensen, MS III; Laura E. Nelson, MS IV; Katelyn Kenzy, MS III; Mollie Heinen, MS III; and Matthew Schmitz, MS II

It is difficult to deny the visceral reaction that music can generate: piloerection during epic fanfares, tachycardia at tense cadences, melancholy at a minor-keyed ballad, tears upon hearing a tenor sing a Latin chant, and so on. The power of these emotional and physical reactions reveal the therapeutic potential of music, both for patients and providers. Music, the arts, and other creative practices are assuming a larger role in the modern therapeutic world as a way for people to learn about themselves and process their emotions and experiences in a controlled, healthy way. Many medical offices have paintings or pictures hung on the walls as a means to combat the often sterile feeling of a clinic setting or to induce a certain mood. The procedure room in Sanford Vermillion's clinic has paintings with various shades of blue specifically to induce a sense of calmness in patients undergoing otherwise nerve-wracking procedures. Hospitals have magnificent, self-playing grand pianos in their atria, bringing a calming melody to an otherwise silent atmosphere. There is an intentional integration of music and art within healthcare settings, and medical education is no exception.

The performance, analysis, and critiquing of music is a wonderful opportunity to practice such skills as listening, observing, synthesizing, self-awareness, congeniality, compromise, non-verbal communication, problem-solving, and abstract interpretation, among others. Coincidentally, the development of these same skills is also paramount to being an effective healthcare professional. The AAMC has a strategic initiative with a primary goal of improving "the education, practice, and well-being of physicians through deeper integrative experiences with the arts and humanities" that is detailed in The Fundamental Role of the Arts and Humanities in Medical Education (FRAHME) report.[1] In it, they highlight how the arts and humanities enable physicians to grow in perspective-taking and personal insight, as well as help them navigate the challenging situations they encounter and experience. Additionally, polls continue to show that patients believe medical knowledge is a given for a medical professional, but what makes providers excellent is the ability to relate to patients and to approach interpersonal interactions in a non-judgmental and altruistic way.

In the current setting of medicine and its pedagogy, the need for integration of humanities seems to be ever-increasing. The goals of knowledge retention are being met, but many personal hobbies and creative outlets are put on hold or outright ignored by both medical students and physicians to keep up with the demands of the profession. This lifestyle can lead to feelings of decreased fulfillment and eventually burnout, with poorer patient and physician outcomes as a result.

Our purpose in founding the Music in Medicine group at the USD SSOM is to provide an organized outlet for those who enjoy performing and appreciating different kinds of music. It is an opportunity to continue our education outside of the academic sphere of medical school and to have an activity to engage in together. After all, a medical team can easily be likened to a band of musicians: a group of skilled people working harmoniously to make something beautiful happen. Finally, participation in Music in Medicine can serve as a healthy outlet for medical students and providers to cope with the stresses placed upon them. Over 21 medical schools have a Music in Medicine initiative established, and now the USD SSOM does as well thanks to Dr. April Willman's guidance and the passion of medical students.

Laura Nelson, Noah Bensen, Katelyn Kenzy, Mollie Heinen, and Matthew Schmitz are the first medical student leaders of Music in Medicine. Their pathway to music and unique background is shared below. They hope their varied music experiences coupled with a shared love for both music and medicine will support the group in its first year and propel it forward for years to come.

Laura Nelson is a classically-trained pianist, a clarinetist, and a sub-par organist who is from Mission Hill, South Dakota. Her love for band and orchestral music came to life when she played in All-State Band and All-State Orchestra in high school, and she continues to enjoy participating in the Yankton Area Summer Band, the Czech polka band Nasa Mala Kapala, and playing piano for mass. Music in medicine

was first introduced to her when she was a patient at Mayo Clinic and had the honor of playing the piano in the atrium.

Noah Bensen is from a small town north of the Twin Cities in Minnesota. He's played piano since 2nd grade, alto saxophone since 5th grade, and has dabbled in a few other instruments over the years. Noah is primarily classically trained, but enjoyed branching into jazz during his undergraduate years, being involved in big bands and small jazz combos. He obtained a minor in music after his freshman jazz professor told him "you're already here (at the fine arts building) all the time, so you might as well."

Katelyn Kenzy is from Riverside, California. Her parents fostered an appreciation for the piano starting at a young age. Katelyn played community and nursing home concerts while in grade school, then school, city, and state-wide concerts in high school. While in high school, she also played marimba in band and drumline. In college she became lead pianist for her church, and she now plays for nursing homes and church as a medical student. Katelyn also sings and has sung in a variety of settings, from community performances, to church masses, to Carnegie Hall.

Mollie Heinen is from Elk River, Minnesota. She began teaching herself piano in elementary school after her neighbors gifted her their old piano saying "if you can push it down the street, you can have it." Her love of music only grew from there as she began taking lessons in the 6th grade and picked up alto saxophone for school band as well. In school, Mollie participated in wind symphony, jazz ensemble, marching band, and drumline. She continued to play throughout college at SDSU in the Pride of the Dakotas Marching Band. Over the years, music has allowed her to connect with a variety of individuals and has taught her ways of expression outside of words alone.

Matthew Schmitz is from Sioux Falls, South Dakota. His experience with music began at age 7 when he first attended piano lessons taught by a beloved family friend. Piano recitals, contests, and composing music served to develop an appreciation for both melody and rhythm, creating a stepping stone for learning the trap set and acoustic guitar. Music has developed a sense of creativity that has aided and guided him during his journey into medicine.

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“Family” Doctor

Chester Samuelson, MS IV

This drawing is inspired by a picture taken by my sister-in-law of a special patient of mine — my nephew. He came as a patient to my site while I was rotating in the Frontier and Rural Medicine (FARM) program. It was a joy to be a part of his care and gave practicing “family” medicine a whole new meaning.

The patient and guardians have given written consent for the publication of this drawing and narrative.

About the Author:
Chester Samuelson, MS IV, University of South Dakota Sanford School of Medicine.

9 x 12 graphite sketch.

Helping Hands

Andrea Sorenson, MS I

During my undergraduate studies, I began taking a photography class to get a break from my science courses. This allowed me to use the creative side of my brain and eventually led me to start my own business as a wedding photographer and videographer, which I did part-time before medical school. During my first month of school, I began to miss having a creative outlet and began photographing my friends and family. My roommate, Olive, was an art and design major and shares my appreciation for the arts, so she was my model for this piece.

Before medical school, I also worked as an anatomy lab teaching assistant for two years. I've always been a visual/kinesthetic learner and appreciated anatomy as I could physically see how all the structures worked together. I am currently involved in anatomy research where we specifically look at the muscles of the hand, which is why I decided to focus on this specific section of the body.

I used my combined interest in photography and anatomy to create this piece. Once I picked what photo I wanted to use, I imported it into Procreate on my iPad. I referenced a skeleton during my drawing process and mainly used the Procreate fine line brush as it allowed me to incorporate details such as individual muscle fibers. Around the edges, I used the airbrush tool and tried to mimic the natural skin tone to make it look as if there was a cut-out in the skin, revealing the underlying structures.

The goal was to portray how there are many working pieces to the simple joys of life, such as drinking a cup of tea, as well as a reminder that as physicians, our goal is to help our patients continue doing the daily activities they enjoy.

Mixed method of photography and digital illustration.

Permission was received from the model.

Physicians and other healthcare workers often concentrate on the scientific aspects of the human body, but it's crucial to also consider the patient from a broader, multifaceted perspective. The most effective healthcare providers are those who not only have a solid grasp of medical sciences but also understand and respect what their patients value in life, helping them prioritize those values in their care.

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The Healing Symphony: Bridging Medicine and the Humanities

Kianna Thelen, MS III

Medicine often honors itself as a symbol of science, a realm defined by precision, knowledge, and diagnosis. But for me, medicine is also an art—a blend of human connection, rhythm, and emotion. It isn't just about understanding diseases; it's about hearing the stories that people carry. It's not merely prescribing treatments but finding ways to reach the heart of someone's experience, their fears, and their hopes. As a medical student who has been deeply involved in musicals, plays, and singing throughout my life, I have come to see how the humanities and medicine are inherently intertwined. They complement one another, forming a partnership where both healing and humanity flourish.

I have always carried a love for the arts. One of my most memorable experiences was performing in *Grease*, a production that left a lasting imprint on my life. The energy, the teamwork, and the immersion into another world captured my heart. In high school, theater and singing were central to who I was. I knew, even then, that they would always be a part of my life. But as I transitioned into the world of medicine, I wondered how I could carry this love of the arts with me, unsure of how it could coexist with the demands of medical school. What I have since discovered is that the two—art and medicine—are not separate paths, but instead threads that weave together to form a richer understanding of what it means to heal.

The Stage as a Classroom for Empathy

In every production, I had the opportunity to inhabit the lives of others. I learned to step into the shoes of my characters, feeling their joys, their fears, their struggles. The art of performance is, at its core, an exercise in empathy. When we act, we open ourselves to the emotions of others, even those whose experiences may be far removed from our own. This lesson has become invaluable in my journey through medical school.

When I meet a patient, I see a person, rich with history, full of experiences that extend far beyond the moment they walk into the exam room. Their illness is only one part of their story. The same way I would study the backstory of a character on stage, I strive to understand my patients' lives, their fears, their motivations. The humanities have given me a window into seeing patients as whole people, not merely as cases to be solved.

The Melody of Communication

In music, every note, every pause carries weight. A change in pitch or rhythm can alter the entire mood of a song, just as the way we communicate in medicine can shape the relationship we build with patients. Singing taught me the power of expression, the way in which our voices can communicate so much more than the words themselves. It's not just about what we say, but how we say it. This realization has followed me into the clinic, where I've learned that listening can often be more powerful than speaking.

As I've worked with kids in my community on singing and acting, I've seen firsthand the joy and connection that come from performance. These moments of shared creativity have reminded me of the importance of communication in medicine. Just as I must listen to the voices of children trying to hit the right note or express emotion through a scene, I must listen to my patients—to their concerns, their fears, their hopes. In those moments, the act of listening itself becomes a form of healing.

Finding Balance: The Humanities as a Source of Resilience

Medical school is rigorous. The endless hours of studying, the emotional weight of patient care, the constant striving for perfection—it can be overwhelming. But I have found that I perform my best in medicine when I also engage in the arts. When I am singing, performing, or working with kids on theater, I feel recharged, rejuvenated, and able to return to my studies with greater focus and clarity.

The humanities, for me, are more than just a passion—they are a lifeline. When I immerse myself in music or theater, I reconnect with the joy and creativity that first drew me to these art forms. In those moments, I am reminded that I am more than just a student or a future physician; I am a whole

person who needs time to express, to reflect, and to care for myself. Engaging in the arts helps me maintain the balance that is so crucial to my well-being as I navigate the demands of medical school.

A Holistic Approach to Healing

One of the most important lessons I've learned from theater and music is to see people as whole beings, not just as the roles they play. In these shows, I was part of a cast where every character had a unique story, background, and set of emotions. No two characters were alike, just as no two patients are. As I work with patients, I am reminded that they are not defined by their illness; they are individuals with complex, multifaceted lives. This holistic approach—seeing the person behind the diagnosis—has become central to how I view medicine.

In one of my clinical experiences, I met a patient who had been struggling with a chronic illness for years. She told me about her symptoms, but it wasn't until we spoke about her love for gardening and her fear of losing that part of her life that I truly understood her experience. It was then that I realized how essential it is to treat the whole person—not just their physical symptoms, but their emotional and spiritual needs as well. The arts have taught me this holistic perspective, one that I will carry with me throughout my career.

The Humanities as a Bridge Between Science and Soul

The sciences provide the framework for medicine, but it is the humanities that give it heart. My love for theater, music, and performance has shown me the value of empathy, communication, and resilience. These are qualities that make not only a good performer but also a compassionate physician. The arts have taught me to look beyond the surface, to listen deeply, and to care holistically for those around me.

As I continue my journey through medicine, I carry with me the lessons of the stage and the music hall. I know that these experiences will guide me as I strive to heal not just the body, but the soul. Medicine is, at its core, a symphony—a delicate interplay of science and art, of diagnosis and human connection. And it is this harmony that I seek to embody, as both a future physician and an artist at heart.

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Milkshake Medicine

Ellie Blue, MS III

If you give a man a milkshake,
He might ask you for a straw,
His voice a little scratchy
After the intubation left it raw.

If you give a man a milkshake,
You might earn a smile from his wife,
Who's kept a vigil at his bedside
Since he almost lost his life.

If you give a man a milkshake,
You might glimpse a tear rolling down a cheek,
And his family's joyous expressions
As he takes his first real bite in a week.

If you give a man a milkshake,
He might smile at the taste,
And momentarily forget
About the many challenges he has faced.

If you give a man a milkshake,
You might start to realize,
There's more than just the medicine
That helps our patients feel alive.

In this poem, I reflect on a patient encounter during my rotation with the inpatient surgery service. During this encounter, my patient's family had been waiting all week for their loved one to wake up. They knew his favorite food was a milkshake and hoped to surprise him with one after he was cleared to begin eating again. Upon delivering this milkshake to his room, I was immediately enveloped in a hug by the patient's tearful wife. She was elated to finally be able to do something for her husband, who had been intubated and sedated for most of the week. To the patient's wife, giving her husband a milkshake was an important part of his recovery as it signified that he was not only present to enjoy one of his favorite foods, but also that he was present in her life.

This interaction reminded me of how crucial it is to remember that our patients are people first and patients second. They have people who care about them, goals for the future, and – of course – favorite foods. I hope to keep this interaction in mind during my future patient encounters as a reminder that being a physician is not just about caring for the body, it includes caring for the mind and soul as well.

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Mercy & Metronidazole: A Reflection on Self-Compassion

Rebecca Hofer, MS II

My alarm went off at 4am the day I left for Guatemala, and I remember thinking to myself, "Is this really how you want to spend the last week of your final summer vacation ever?" When I initially signed up to travel to San Lucas Toliman with USD SSOM, I hadn't realized that the trip would occur over the final 10 days of my last-ever summer vacation. Despite my reservations, I was excited to get my first taste of practicing international medicine. Since I was young, I had longed for the opportunity practice medicine abroad, and follow in the footsteps of Paul Farmer, the medical anthropologist who had inspired me to attend medical school.

The trip consisted of six days of clinic and two days of exploring the surrounding towns. As a student just about to start my second year, I hadn't even learned how to detect a heart murmur, let alone how to treat high blood pressure, pneumonia, or the host of other health problems our patients brought into the clinic that week. But before I knew it, I was paired up at a table with a fourth-year student and a translator, nervously asking my first patient questions about her stomachache.

Teddy Roosevelt once said, "In a moment of decision, the best thing you can do is the right thing, the next best thing you can do is the wrong thing, and the worst thing you can do is nothing." As a medical student, I often find myself struggling with the paralysis of perfectionism. "I'm not ready," I often tell myself. "I'm not ready for this test. I'm not ready to see this patient. I'm not ready to take this risk. I'm not ready to make this decision." I expect myself to be able to perform to perfection, to have all the dominos lined up, and to notice every sign and prevent all problems before they happen. But realistically, the chaos of life has a way of throwing a wrench into even the most perfectly laid plans. I think one of the biggest lessons I learned in Guatemala was that it's okay to not know all the answers, but still be willing to address the problems before you. In this state of openness to the unknown, we find solutions and discover resources previously unbeknownst to us.

Our team saw 337 patients over the course of those six days, and I learned something new from each patient I saw. From using the butterfly ultrasound to let a pregnant patient see her

Figure 1. View overlooking Lake Atitlan in Santiago Atitlan.

Figure 2. Marketplace celebrations in San Juan La Laguna.

Figure 3. Lunch on the lake with Leah and Jess.

baby for the first time, to the lightbulb moment of diagnosing a herniated disk, to grieving the frustration of not having the tests and resources needed to effectively help our patients, in each case I saw the beauty in doing *something* rather than *nothing*. We gave out vitamins and metronidazole, scheduled follow ups with local hypertension programs and hospitals, and even when we couldn't do much, we always stopped to *listen* to our patients. Through the process, I managed to let go of some of my paralysis of perfectionism.

Since the trip, I've found myself more interested in pursuing compassion than perfection, both toward myself as a student and toward my patients. My time in the clinic in Guatemala emphasized some of the essential, though often overlooked aspects of effective healthcare. As I continue my medical education and practice in the future, I hope that I first remember to always be kind. I hope that my compassion towards others mirrors my compassion toward myself, that I learn to love the process of learning and the pursuit of excellence, and not be afraid of it.

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Figure 4. Driving out of Guatemala City.

Figure 5. A rainy season evening in San Lucas Toliman.

Figure 6. Foggy morning in the compound courtyard.

Figure 7. Opening the curtains on our first morning.

Every Cut Matters: A Surgeon's Generational Impact

Kevin Feldhaus, MS IV

As a medical student pursuing a career in surgery, I often wonder about the impact I will have on my future patients. I frequently ask myself this question: how can I positively affect the lives of others? However, the rigors of medical school can often overshadow what it means to be a physician and my calling to medicine. This story isn't about me and my pursuit of medicine. Instead, this is about my father and a story that will influence my career. I wrote this to remind myself of the humanity within medicine and the unique relationship physicians have with their patients. My father is a retired cardiothoracic surgeon who, over the course of 40 years, practiced in multiple cities, treating thousands of patients. He has experienced things some can only imagine and cared for individuals on the brink of death. He remembers the patients he has lost and still wonders about the patients he has cared for. Some patients are seen in post-op follow-ups, but as years go on, they no longer need to see him. They simply go on living their lives with a reminder each day of their past in the form of a sternotomy scar. A reminder of how delicate life can be and the importance of healthcare. The impact of the surgical blade can mean life or death and, in simple terms, can be quantified as minutes to years. We know the risks of surgery and the acute benefits seen months post-operatively, but what about generations? What about a patient's life being extended not one or two but ten or twenty years? What about how surgery affects family and friends, careers, or hobbies? My father's wonder of the past patients he had cared for came back to him recently in a unique way.

Shortly after my father retired, my grandmother and his mother became ill and quickly passed away. As he watched his mother experience end-of-life care, his role shifted from caring for a patient as a surgeon to now caring for a parent as a son. My father reminisced on the impact his mother had on his life and the impact he had on the lives of others. At my grandmother's funeral, a man walked in with an envelope in his hand and with the purpose of finding my father. As this man approached, I noticed the tears in his eyes. The envelope's contents signified my father's impact on his life. The man reminded my father that he had performed three-vessel coronary artery bypass surgery for him 20 years ago, and he brought along with him this envelope that represented the generational impact that open heart surgery had. Inside contained pictures of him meeting his grandchildren, watching them grow up, spending holidays with them, and being a part of their lives. He even had a picture of the heart-shaped pillow given to him by the surgical staff, along with a drawing of his bypass. This man described seeing our last name in the paper and wanted to pay his respects to the woman who raised the surgeon who saved his life and reminded the surgeon of his lifelong impact. They discussed the importance of their encounter twenty years prior and how it shaped his life moving forward. The man described his gratitude for my father and his healthcare team in general. To this man, the surgery was a life-altering event that gave him a renewed future with his family and carried importance beyond the walls of the operating room. This operation had a generational impact that not only affected his life but the lives of his children and grandchildren.

After reflecting on this encounter, my father recalled a surgeon's impact on a patient but also realized this impact is reciprocated by patients to the surgeons themselves. He talked about the emotional toll he felt when he lost patients and the feeling of accomplishment during successful cases. This retired surgeon felt fulfillment upon seeing the pictures of his patient living a full life surrounded by his family. Healthcare extends beyond the hospital boundaries, but seeing tangible evidence of healthcare affecting generations later moved my dad emotionally. I hope this encounter exemplifies physicians' unique opportunity to care for the patient entirely and how that care extends to families and friends. The impact of the patient's care compelled this man to show appreciation by reciprocating care and compassion by visiting his surgeon during a vulnerable time. He felt the need to support my father just as my father cared and supported him.

As I reflect on my future as a physician and this story, I think about a physician's unique position. The opportunity to care for the lives of others, establish a relationship with their patients, understand their story, and, in some instances, extend one's life or improve the quality of one's life. With my journey in medicine just beginning, this story will serve as inspiration to focus on the generational impact surgeons have when caring for the lives of others and knowing that each incision can leave a lasting reminder for a lifetime. This will remind me that a surgeon's touch carries great weight and has a generational effect on patients and their families. Our small encounters with patients can leave a lasting impression for generations to come.

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Healing in the Wilderness: Nature's Role in Medicine

Lucas Goetz, MS II

As I hiked through the rugged landscapes of Utah this past summer, I found myself thinking about the connection between nature and medicine. The bright sunrise, towering rock formations, and quiet solitude of the wilderness were meant to provide only a temporary escape from the stress of medical school. To my surprise, they also provided me with the opportunity to reflect on the profound influence of the humanities in medicine.

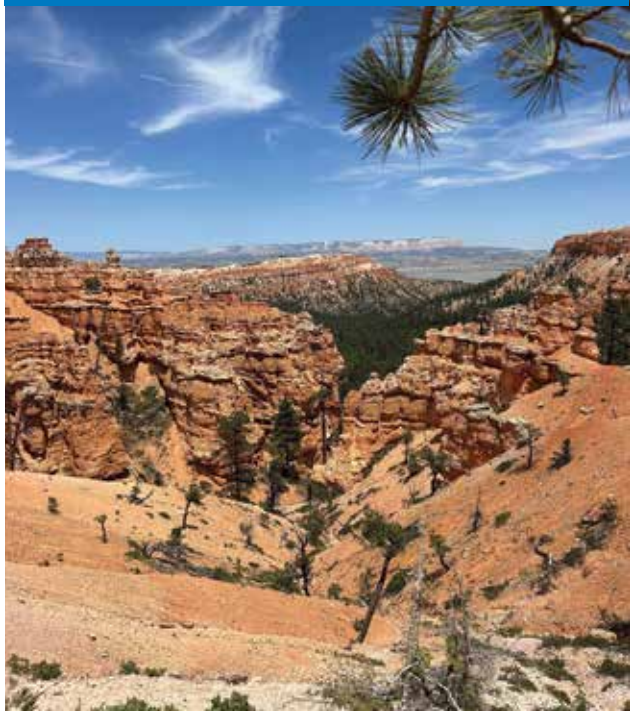
Although medicine is usually viewed through a scientific lens, it seems as if it is just as much an art as it is a science. A truly great physician should show their patients kindness, empathy, and respect from the beginning of the history to the end of the exam. They should understand the human condition and help patients navigate the complex challenges of life and death. The humanities, specifically the connection to nature, play a critical role in being a great physician.

This summer, I set out on an adventure of a lifetime: backpacking Utah's Mighty 5 national parks for two weeks with my now-fiancé and two friends. The planning and research alone that went into this trip taught me more than I ever could have wanted from a summer vacation. But it's the beauty of the landscape that has stuck with me more than anything. The canyons and valleys that, over millions of years, have been carved by the wind and rain reminded me of the resilience, patience, and power of healing I see in medicine. Both on the trip and after, I have pondered this connection between that landscape and the humanism of medicine.

Just as the land is shaped by the elements over time, we too are shaped by the people we encounter and the situations we find ourselves in. Nature provides an environment that encourages reflection. Maybe it's the silence and maybe it's the awe, but nature always finds a way of prompting us to reflect on our thoughts, feelings, and experiences. This connection to nature has benefits that extend beyond the park limits and deep into clinics and hospitals. It can provide healing for both patients and physicians. For patients, spending time in

Sunrise at Mesa Arch in Canyonlands National Park.

Afternoon view from atop the Figure 8 Combination trail, consisting of Queen's Garden, Navajo Loop, and the Peekaboo Loop hikes in Bryce Canyon National Park.



nature promotes physical and emotional healing by reducing stress and encouraging rest and rejuvenation. For physicians, nature can lift the burden of stress, prevent burnout, and help them better provide care to their patients. Just like the land, we, whether patients or physicians, have an innate ability to heal and adapt.

Humanism in medicine emphasizes the importance of kindness, empathy, and respect in our interactions with every patient. We strive to see patients not as collections of symptoms or illnesses but as human beings with stories, hopes, and concerns. During my short time in medical school thus far, I have seen firsthand the impact of humanism on patient care.

When I follow an attending physician, it never seems to be the test they ordered or the treatment they chose that sticks with me. It is almost always the way they interact with their patients that I find myself reflecting on during my drive home. It is how they can show kindness to every patient and every coworker that leaves a lasting impression on me.

Looking back on the hours spent on the trails of Utah, I recognize how much those trails resemble the journey of medicine. Each step requires focus, determination, and an awareness of my surroundings. There are moments of exhaustion and self-doubt, and there are moments of calmness and joy. Each of these, however, can teach us lessons we can take with us into the next stage of our journey.

The quiet nights around the campfire provided an opportunity to reflect on the importance of balance in life and medicine. Nature has a way of slowing down my thoughts, muffling the noise of my everyday life, and allowing me to reconnect with what means the most to me - my values, my sense of purpose, and my loved ones. It is common in medicine (and in many professions) to become consumed by the stress and demands of the work we do, but moments like this remind us how vital it is to maintain our own well-being to care for others effectively.

As I reflect on my experiences in Utah and my journey through medical school, I am constantly reminded that medicine is just as much an art as a science. In addition to knowledge and technical skills, it requires kindness, empathy, and respect to give our patients the care they deserve. The wilderness of Utah reinforced the importance of these qualities and their central role in the humanities in medicine.

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The Physician I Hope to Become

Belle Grady, MS III

The one who listens to the ideas of the team,
And contributes their own as well;
To best treat the aching patient,
Whose symptoms they cannot quell.

The one who greets coworkers,
With a smile and a nod;
Because illness be not the sole contagion,
In these halls we trod.

The one who provides,
A warm and calming space;
With gentle hands in exams,
Who gives all people grace.

The one who sees the person,
And all that they hold true;
To accept alternative treatments,
May that carry them through.

The one who treats a single mom,
Distraught with all life's blows;
Who comes in for a cough,
I will also ease her woes.

The one who sees a broken man,
Who sleeps out on the street;
I first will stitch his wound,
And then will wash his feet.

The one who holds a hand,
When delivering bad news;
Honoring dignity as they depart this life,
For their memory I'll never lose.

The one who hangs up their coat,
At the end of a long shift;
And drives home to be with family,
For this life is a gift.

The one who kneels down at night,
And bows their head to pray:
"Grateful for the honor to touch so many lives,
May these hands heal again my next workday."

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When Nurses Become Photographers

Rylee Honomichl, MS I

My brother's baby book is different than my sister's and mine. There are multiple differences, but the one that stuck out to me the most is the five Polaroid pictures at the front. They are not very good and honestly are a little blurry.

When my mother was in labor with my older brother, she felt something wasn't right. Her uterus had ruptured, and she was rushed to the operating room for an emergency cesarean-section. She remembers the eerie quiet as she waited for the surgical team to come. Her next memory was being pulled out of anesthesia by her doctor to see my brother before he was airlifted to the Sioux Falls NICU, 60 miles away. This was back in 2000 before everyone carried a high-quality camera (their cell phone) in their pocket. Before my brother was whisked away, one of the nurses used a Polaroid camera to catch his first, and maybe final moments.

Photography has become an extremely accessible art form as cell phone and digital camera quality improves. We hold the power in our hands to capture everyday memories in an instant. That small act of compassionate art carried out by a nurse meant that my family had something tangible to hold on to from my brother other than their hollowing grief. And yet, my family is lucky. My brother's baby book is full. They had the opportunity to hold him and bring him home before he passed away.

But I can't help think of the other mothers, fathers, and siblings who only have what their nurses captured for them.

When Nurses Become Photographers

Pain. Chaos. Rushing. Waiting.

Silence.

Chaos ensues and darkness surrounds.

Wake up
Wake up

Your baby is here
Hold on tight, soon he will disappear
What proof will you have, will you remember his face?
As he is taken and flown to a far-off place
Quick... click than flash, and try not to shake
They're not very good, not very great
But they are precious and real, just like him

A small treasure to hold, when the whole world feels dim.

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AI Tools in Medical Education: Some Assembly Required

Nicholas Kendall, MS II; and Benjamin Limburg, MS II

Abstract

As artificial intelligence (AI) tools begin to integrate into medical education, it is crucial to reexamine beliefs about the role AI will play in physicians' training and practice. From our experience as medical students, we have learned that innovative applications for AI must be discovered through hands-on experimentation rather than being passed down from well-meaning entities. We utilized a Large Language Model to create image mnemonics for personal study use. Implementations of AI such as ours can reduce the time spent on mundane, mechanistic aspects of medical education, allowing for more focus on the art of medicine. Encouraging students to explore and experiment with AI tools in their day-to-day tasks will lead to further innovative uses that enhance both learning and clinical practice. This bottom-up approach will empower students to identify and solve problems uniquely relevant to their training, ensuring that AI integration in medicine reaches its full potential, enhancing the humanistic aspects of healthcare.

On November 30, 2022, OpenAI introduced ChatGPT to the world. Within just two months, the engine already had an estimated monthly user base of over 100 million and solidified its position as the fastest growing consumer application in history.[1] ChatGPT's advent will undoubtedly be characterized as Promethean and no field will remain untouched by artificial intelligence (AI).

To discuss the implications of AI for medicine and medical education, the applications, limitations, and biases of AI should first be presented. Generative AI models use machine learning to synthesize data inputs from billions of different sources into a network which can then be used to "converse" with human users on a variety of topics via large language models (LLM).[2] The ability for LLMs to fluently construct sentences informed by facts with striking accuracy is what makes AI models so useful. However, since factual accuracy isn't actually the fundamental premise upon which AI models are built, unintended behaviors such as confabulating facts and biasing answers do arise.

Often, when we encounter headlines about AI's role in medicine, a sense of discomfort emerges. Recent reports of ChatGPT "performing at or above the passing threshold" on each of the USMLE licensure exams challenge the contemporary view of what it means to be a physician.[3] This discomfort, we believe, stems from our correct understanding of the physician's role as inherently humanistic. We perceive the incompatibility of medicine with the impersonal nature of machines. Clearly, medicine requires a team of compassionate healthcare workers, all applying their knowledge to unique scenarios, not simply inputting and outputting information into an algorithm. The philosopher Wilhelm von Humboldt highlighted a similar discomfort centuries ago when he said, "If a man acts in a mechanical way, reacting to external demands or instruction, rather than in ways determined by his own interests and energies and power, we may admire what he does, but we despise what he is."[4]

Amidst such unease, many have developed a fundamental misunderstanding of how AI will be applied. Some are perceiving its application as an "all-or-nothing" event, fearfully awaiting the day it makes healthcare workers obsolete. We are calling for a paradigm shift. AI should instead be recognized as the most dynamic tool in the history of healthcare. Interestingly, because AI is unlike any tool previously encountered, we face a unique challenge: the absence of an instruction manual. When given a hammer, one starts to look for a nail. When handed AI, the next steps are unclear. In what instances has a tool dynamically shaped itself to a task in real time? Traditionally, innovations in healthcare are adopted after the completion of rigorous approval processes, but AI's fluid nature necessitates a more proactive approach. The applications of AI will only be discovered through the direct experimentation of those who use it, requiring us to seek insights from those on the frontlines of healthcare. These individuals are uniquely positioned to explore and understand AI's potential applications through the process of trial and error as they use it to solve problems that only they can identify. Such a perspective shift must begin within medical education, where liability concerns are minimized and where future leaders in healthcare can gain confidence in their abilities to utilize AI. Here the success of AI can begin to be measured on humanistic terms, where integrations should enable students to spend more time with patients, engage in research, and explore the humanities. This approach differs from the common perception of AI success, which often focuses on its ability to replace jobs.

Figure 1. Prompt provided to DALL-E 3: A rock climber is making olive oil while drinking a cup of coffee.

Mnemonic meaning

1. Rock climber – representing the climbing fibers of the cerebellum.
2. Olive oil – representing the inferior olive, where the climbing fibers originate from.
3. Coffee cup – representing the Purkinje cells (coffee "perks you up") which receive projections from the climbing fibers.
4. The scene is under a large cliff – representing the inferior cerebellar peduncle.

As first-year medical students, we have utilized a LLM to streamline rote memorization tasks in our medical education. We used OpenAI's image generator "DALL-E 3" to create vibrant mnemonic images covering various pharmacology, pathology, anatomy and other topics (Figure 1). Visual mnemonics, inspired by ancient memory aids like the Greek "mind palace," and more modern resources like Sketchy and Pixorize, do offer an efficient learning method. However, the costs of third party resources can be a barrier for many medical students. For us, utilizing AI to create personalized learning aids has notably reduced study times by allowing us to more quickly memorize commonly covered USMLE topics. This does not undermine the value of memorization, but rather allows more time for prioritizing the development of clinical skills.

How can we encourage the development of more unique and creative AI applications by students? For those involved in medical education, it will require fostering an environment where students feel empowered and encouraged to explore AI in novel, dynamic ways. The term "AI" must not become taboo, whispered only when administrators and attending physicians are absent. Instead, we must demonstrate to students a trust and enthusiasm for their innovative use of these tools. For example, our techniques for creating AI-generated image mnemonics would never have emerged from a conventional "AI in medical education" conference or a medical school seminar on the utility of AI. They arose from our own intimate knowledge of the daily challenges we face as students and our need to expedite our own tasks.

A common leap taken by those with views opposing AI integration is that the potential streamlined learning these tools offer is offset by the facilitation of academic dishonesty. It's true that LLMs allow for effortless generation of written materials and answers to straightforward problems such as on assigned homework. However, such fears are much more correctly placed in the halls of middle schools as opposed to medical schools. Resources are often already in place to keep exams in secure browsers or proctored settings, making testing impermeable to any student attempts to consult AI and gain an advantage. Additionally, medical school traditionally lacks the "busy work" that is easily completed by AI. Although fear of cheating throughout the training process is valid, if safeguards are well thought out, the benefits will far outweigh the risks.

Conventional wisdom on AI, though well-intentioned, falls short of what's truly needed: tangible support, safety, and the assurance that innovative applications of AI will be trusted and valued. Our proposed bottom-up approach underscores the importance of nurturing a culture within the highest echelons of medical education that anticipates and supports student-initiated developments. It's imperative that we take control of the narrative surrounding AI in healthcare, presenting it as the invaluable tool it is, instead of allowing AI to become a mysterious entity. If we want AI to maximize the humanistic components of medicine, rather than minimize them, we must provide those on the ground the creative freedom to explore its applications. Empowering student physicians early in their training prepares them to effectively anticipate and integrate AI in their future practices. Ultimately, students will be prepared to both encounter AI during their training and utilize it in practice, impelling the human component of medicine to flourish rather than diminish in the oncoming world of AI.

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Finding Humanity in the Quiet of Morning Rounds

Melissa Pham, MS III

There is a captivating beauty to an early morning in the hospital, where the quiet transforms into a sanctuary of reflection and healing. These serene moments take me back to my first experience preparing for rounds as a medical student. The resident physician had sent me to go check up on some patients before formal rounds with the attending physician. With only a few weeks of clinical experience, I was filled with uncertainty as I prepared to preround for the first time by myself. I stood in the hallway of the hospital with my patient list clutched in trembling hands. I must have looked nervous because a kind nurse approached me and asked if I was lost. As I approached the room of my first patient, I rehearsed my questions for the patient repeatedly in my mind. I was told that this patient is an elderly woman who was always nice to hospital staff, but she usually had a flat affect. How would I wake her gently? What if I disturbed or upset her? Summoning my courage, I took a deep breath, knocked on the door, and stepped into the room to introduce myself. Under the dim light, I helped her as she reached around for her glasses on the overbed table. To my relief, the corners of her lips turned up into a soft smile which instantly set me at ease. Our conversation started to flow naturally, and I learned that she was a professor once upon a time. My worries about what to say seemed to disappear, and the medicine came effortlessly. She expressed that she had been feeling a little bit lonely since she had not had any visitors yet. After a silent pause, she took out her phone to show me some pictures of her five grandchildren who would come to visit later in the morning from out-of-town. I saw her eyes light up with joy as she talked about each of her grandkids and explained what they are like. I ended up sitting and chatting with her until her family came to visit. As I was about to leave, I thanked her for her time. She reached out to grab my hand and whispered a hoarse thank you. Tears of appreciation had welled up in her eyes as she flashed me a gentle grin. After this initial encounter my perspective on rounds completely changed. I used to approach rounds with fear and a tunnel-vision focus on the medicine. However, now rounds feel like an opportunity to have meaningful exchanges and conversations with patients and their families. I soon learned that one of the greatest teachers on rounds is not only the attending or the resident physician – it is the patient. Rounds were a time to not only check on the patient but also to get to know them and acknowledge their concerns. This memorable experience marked the beginning of my journey in understanding that the true art of medicine lies in these moments of genuine human connection.

Nowadays, as I go from room to room in the hospital, I realize that there is a certain vulnerability in being around patients during morning rounds. In these quiet hours, I can reflect on the raw humanity of each patient. I gain a glimpse into the frailty, the strength, and the experiences that shape their lives. The beeping monitors and constant hum from machines seem to fade into the background as I focus on each individual patient's needs. There is a stillness as I am at their bedside, and I am reminded that each patient has a unique story to share. One of my amazing attending physicians taught me something on teaching rounds that has stuck with me every day: "Always take a moment to get to know each and every patient whether that be as simple as asking them where they are from or what they do for work." This tip continues to echo in my head every time I meet a patient. It has opened up many chances for heart-to-heart conversations with patients. As I get to know each patient, I see their personality emerge beyond their diagnosis and their medical history. If I am lucky, patients might even share anecdotes or life advice with me, and I am constantly reminded through these experiences that patients are more than just medical diagnoses to treat. Each patient has their own quirks, joys, frustrations, hopes, and fears that shape who they are. It has been incredibly rewarding to see that taking the time to understand the context of each patient's situation truly makes patients feel seen, respected, and cared for.

During rounds, I find myself drawn to these small, quiet moments of connection. There are times when I am invited to sit with a patient, to hold their hand, and to offer a moment of comfort and support. I remember trying to get acquainted with the feeling of having silent moments with patients. It felt uncomfortable at first, and I am still practicing how to be more comfortable with being uncomfortable. However,

I have learned to use these times of stillness to understand how silence may sometimes be pivotal in the healing of patients. These quiet moments seem to provide patients with a chance to process their situation while still feeling supported. It is in these moments of physical presence and emotional support that I realize the true meaning of patient-centric care. I realize that the art of medicine is not just about knowing the right course of action or the right dosage. Rather, it is about these beautiful connections we can have with patients – connections filled with laughter, joy, fear, anguish, and sometimes grief. The humanity in medicine is about acknowledging the patient, listening to their concerns, and treating them with kindness. It is about the simple words of "How are you holding up?" or "What can I do to make you more comfortable?" asked not just as routine but with genuine concern. These patient-focused moments are the heartbeat of morning rounds. The honor of taking care of patients is the unspoken bond that links everyone in the hospital together on this shared journey through illness, healing, and sometimes loss.

With each patient, I continue to learn more than just the signs and symptoms. I learn about the lives of each patient and their goals. The next patient you round on might be a grandmother who misses baking with her grandchildren, a father who dreams of walking his daughter down the aisle, or maybe a young woman who yearns for a fresh start. The illnesses of these patients may define their current situation, but it is the aspects of their lives outside the hospital walls that remind me why we enter the field of medicine. These are not merely patients; they are mothers, fathers, daughters, sons, grandparents, and friends. They are individuals with hopes, dreams, memories, and love.

When the rays of dawn trickle into the hospital and quiet prevails, I am reminded of the intricate balance between medicine and humanity. I continue to challenge myself in basking in the silence of morning rounds and embracing the gift of learning from every patient. Even on my busiest days, I hope to always remember why rounding should not be seen as just another task to do for the day but rather an opportunity to gain context into the lives of patients. As a future physician, I hope to share my passion and perspective of rounds with others. The science may guide our decisions, but it is the meaningful connections and empathy that breathe life into the art of medicine. These priceless connections remind us that it is a profound gift to be invited to walk the uncertain path alongside our patients. The beauty of morning rounds lies not just in the care we provide but in the quiet understanding that we are part of their story even if it is only for a brief chapter. It is absolutely a privilege to step into the lives of patients, to offer support, and to witness their vulnerability. When the radiant morning light graces the hospital and rounds begin, we witness medicine as an art of empathy, compassion, and humanity. It is in these golden moments when medicine feels less like a profession and more like a calling.

Disclosure statement: I have no conflicts of interest to disclose regarding the content of this submission.

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Compassionate or Compassion It?

Phebie Rossi, MS II

Along with a fellow medical student, I flew out to San Diego in early August to attend the Compassion Ambassador Program (CAmP) hosted by UC San Deigo's Institute for Empathy and Compassion. There for three days, we had didactic series on the neuroscience of pain as well as "contemplative sessions," where we aimed to define compassion and what it looks like as physicians in the future. My largest takeaway from CAmP was the mental transition from compassionate as a descriptor of another to an action we can decide to undertake daily.

When deciding to "Compassion It," we go through five steps that act as a positive feedback loop. The first step is to slow down enough to recognize the suffering of others. This can be picked up through facial expressions, language, or actions, but it is essential that we are not too caught up in ourselves to notice the pain of another. Following this recognition, empathy is sparked, and acts like a trigger for the rest of the steps to Compassion It. This empathy leads to a desire to help, followed by a willingness to act. Finally, to Compassion It is to feel a warm glow after the action.

This warm glow is a concept I struggled the most to comprehend, as I have felt that I was compassionate before, but I did not feel an overwhelming sense of positivity from the action. We delved into this lack of warm glow and realized that those who choose to Compassion It need further reinforcement of the cycle. I had always believed this reinforcement needed to come from the person I was helping, but this is not completely true. We have the ability to feed into our own compassionate cycles by recognizing the work we are doing. It can be as small as a mental note that we have done what we can or as large as sharing what you did with a confidant. This personal recognition is far from bragging, but is instead positive reinforcement to Compassion It again in the future.

Leaving CAmP, I am excited to practice choosing to Compassion It in my day to day life on this journey into medicine. I am hoping that by finding ways to Compassion It in my preclinical months left, I will be an agent of compassion in the clinic in February as Pillar 2 begins.

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When I Think of Kindness

Matthew Simmons, MD

When I think of kindness,
I think of how
In this moment
I can
Transform my mind
To be more kind.
In a moment,
I can act with kindness
To change a life
Including my own.

This poem appeared in the Spring/Summer 2021 edition of South Dakotan MD. It has been reprinted with permission.

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On Beauty...

Kathryn Vogelsang

I have a friend who worked in the aerospace industry for many years and is also published poet. In the past, when he encountered a brilliant poem – one he wished he'd written – he'd describe it as being "disturbingly good". In a similar vein, I consider Dr. Kathryn Vogelsang 2004 essay "On Beauty" to be brilliant. It is the poignant memoir of a young woman who sustained major physical and emotional trauma, and yet endured and ultimately flourished. As a former editor of South Dakota Journal of Medicine, I consider Vogelsang's essay to be among the best I ever selected for publication. Its message is as timely now as it was 20 years ago. I enjoy sharing this account with medical students because it illustrates the importance of seeing our patients in the context of their lives. There are myriad ethical quandaries in healthcare and attention to the specifics of a patient's story often reveals how best to proceed.

Jerome W. Freeman, MD
Guest Editor, South Dakota Medicine Humanities Supplement

When I awoke in the hospital, I felt as if a freight train had smashed into me. I was in a state of massive confusion, knowing only that I had been in a car accident and that my friend had died. I began to feel pain seeping into every pore of my body. I could feel something strange on the top of my head; it felt as though I had a weave of tight braids nestled in my hair that I could not remember putting in. An intricate web of gauze and wires surrounded the skin that had been taken from my leg and grafted onto a large portion of my head. There was tension in the skin that was stretched thinly over my forehead to cover another wound, feeling like an overfilled balloon ready to burst. I could not close my right eye. I had sustained a plethora of injuries: a concussion, a cracked skull, a fractured neck, a broken hand, and massive blood loss. I felt like a marionette whose strings had been cut; my entire existence was paralyzed.

The succeeding days were a blur. There was a funeral that I was unable to attend and a hoard of people who came to visit me in the hospital. I often wondered if their visits were genuine or if they stemmed from some sort of obligation that they felt towards me. Oddly enough, friends whom I had not had contact with in years and relatives that live thousands of miles away came to visit me and support my family. Because I had not seen any of these people in so long I cynically thought to myself that nearly dying must be an effective way to get grandma to come for a visit.

The days passed slowly and I began to feel the numbness setting in. The place where I was living was desolate and dark, leaving a bitter taste lingering in my mouth. Life now seemed hopeless and brittle. At this point I had not actually looked at myself but had only felt the imperfections with my hands. Seeing with your hands is a tricky thing to do, but fear would not allow me to step in front of a mirror and gaze at who I had become. Avoiding mirrors in my home was not an easy feat. In my bathroom there is a vanity mirror with three opening doors centered above the sink, which is directly across from the toilet, making the mirror impossible to avoid. To solve the problem I turned the two outside doors in to face the center one, forming a barrier against myself.

About a month went by before I contemplated looking in a mirror. The process began by viewing only small portions of my face and head at a time. My mother would lovingly tie silky scarves onto my head when I went in public in order to disguise the disfigurement, and this is what helped prompt me to begin to look at myself. The first few times that I looked in the mirror a scarf was fully covering my head and my appearance was not nearly as grotesque as the multitude of images that I had conjured up. My right eye looked a little bit strange, but I was pleasantly surprised. As the days dragged by I began to slowly pull the scarf back, revealing my brow-line and forehead, and becoming more and more appalled by

what I saw each day. I started to notice that the outer half of my face looked as though I was in a state of constant surprise, or possibly imitating Jack Nicholson. I was beginning to see the damage that would be unveiled in due time.

One day, I entered the bathroom and closed the door, unfolded the two outer doors of the vanity mirror and bravely turned toward it. What peered back at me was an immense, fiery pink bald spot where my hair used to be; I looked like a middle-aged man with a seriously receded hairline. There was a thick, pink scar that traveled from my non-existent hairline down to my overly expressive eyebrow. Although I had seen a good portion of my scars with the scarf on and had felt out all of the newly formed crevices on my head with my fingertips, I was shocked at how horrendous I looked. Viewing myself in parts was much easier than looking at myself as a whole person. The bright colors of the scars stood out so vibrantly that I felt they could blind someone.

After I had finally seen the damage that had been done to my head, I found it more difficult to appear in public. I now knew what people would see if I removed my protective scarf. Days turned into weeks and weeks into months. I had been hiding beneath scarves for nearly eight months and the time had come for reconstruction to begin. This was to be done with skin expanders, silicone "sacks" placed under the skin and slowly expanded with saline in order to create new, healthy skin to replace the damaged area. I needed two expanders placed under my scalp and imagined that it would look as if I had grown large breasts on my head. After the expanders were under my skin, I began to wear hats rather than scarves, which concealed the atrocious sight of my head very well. Initially, the expanders were not very noticeable; they were only small bulges on the sides of my head, and the hats that I wore were disproportionately large. The hats had to be so large because my head would be very corpulent by the end of the procedure.

I am not really sure when the turning point was, but one day I decided that I was not going to worry about what other people thought of my head. I acknowledged that I had absolutely no control over the situation, and was not going to allow myself to be overwhelmed by what I had lost. With this new conviction, I looked in the minor, and did not concentrate on the shape of my head. I admired the beautiful color of my eyes, and the sensual shape of my lips.

Through all of my pain and suffering, I have finally realized that I cannot allow anyone else to determine how I feel about myself. I do not need other people to think that I am beautiful. I need only think that for myself. Beauty does not refer to how someone looks on the outside, but how they feel· about themselves. And, while society may base beauty solely on physical attributes, I have learned that beauty goes far beyond this. In the past year of my life, I have had more people tell me that I am beautiful than I have had in all of my previous 21 years combined. At first I was offended by these compliments, but as I healed and grew, I realized they were not referring to the traditional type of beauty. They thought that I was beautiful as a whole person, not just physically. I have endured many hardships and overcome many obstacles, which make me a unique individual. I have faced many of my fears and overcome them. Most importantly, I have learned to accept my many imperfections. These qualities, along with other, more traditional qualities of beauty, are what make me a beautiful human being.

This essay was originally published in the July 2004 issue of South Dakota Medicine, after the author graduated from Augustana College and was applying to medical school.

About the Author:

Dr. Volgelsang graduated from Kansas City University College of Osteopathic Medicine in 2009. She completed a residency in internal medicine and fellowship in hospice and palliative medicine. She is currently affiliated with the University of Washington in Seattle.

Reflections and Imitations: Personal Artwork That Utilizes Another Artist's Work

Sheila Agee, MA; and Jerome W. Freeman, MD, FACP

Two students (Ruby Hawks and Mariah Shafer) submitted their skilled artistic compositions that closely resemble existing artwork. The practice of basing an artist's work on a prior painting is long-standing and murky. Allegedly, such famous artists as da Vinci, Monet, Vermeer, and Sargent occasionally utilized this practice. Currently an Eyob Mergia painting based on a 16th century Titian is on display at the Health Sciences Center. And, of course, utilization of another artist's work is not limited to the visual arts – the world of music has similar challenges. Presumably, such issues in the visual arts and music will be amplified as the use of artificial intelligence becomes more widespread.

With respect to Hawks and Shafer's submissions, both made explicit and appropriate attributions as to the source of the original artwork. Often an artist will state that a painting is "after" or a "study of" the original artwork. In Hawks' case, the original artwork was created in 1934 and is in the public domain. With Shafer's submission, the original artist does contemporary commercial art. In order to closely copy one of her images as a study, specific express permission has been attained.

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Young Girl in the Lap of Death, 2023 charcoal on paper (18" x 24") (after Käthe Kollwitz, 1934; lithograph at Käthe Kollwitz Museum, Köln)

Ruby Hawks, MS II

Käthe Kollwitz, a German artist renowned for her deeply emotional works, dedicated much of her art to exploring themes of suffering, loss, and the fragility of life. One of her most moving pieces, *Young Girl in the Lap of Death,* depicts the tender yet haunting image of a young girl cradled by Death itself. This piece, like many of Kollwitz's other works, reflects the profound grief she experienced in her own life, and is a powerful reflection on the inevitability and universality of death.

As someone entering the medical field, especially with a focus on serving underserved populations, this artwork resonates with me on a personal level. I recently had my first patient encounter — a standard sports physical for a 13-year-old boy. Despite the routine nature of the visit, I couldn't help but feel the immense weight of responsibility that comes with wearing a white coat. It's an unspoken symbol of trust and authority, and with it comes the expectation to heal and to save lives. Yet, in the back of my mind, I'm always aware of the reality that death is an inevitable part of life. What happens when my next encounter isn't so routine?

Kollwitz's work makes me pause and reflect on this difficult truth. It forces me to ask: *How do we reconcile our fear of failing with the knowledge that we cannot always save our patients?* This question isn't easy to answer, and perhaps that's the point. Kollwitz's art doesn't offer solutions — it invites us to confront our discomfort, to sit with the uncertainty, and to acknowledge the human side of medicine. In doing so, it challenges us to be more empathetic, more present, and ultimately, more compassionate in our practice.

This reflection is crucial as we grow into our roles as healthcare providers. In the end, being a good physician isn't just about mastering medical knowledge—it's about offering comfort and care even when we cannot cure. It's about being there, being present in the moments that matter most; in the moments when life and death intersect.

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Young Girl in the Lap of Death, **2023 charcoal on paper (18" x 24") (after Käthe Kollwitz, 1934; lithograph at Käthe Kollwitz Museum, Köln).**

The Story Hands Tell: A Re-creation of *Aged Flesh* by Jo Beer

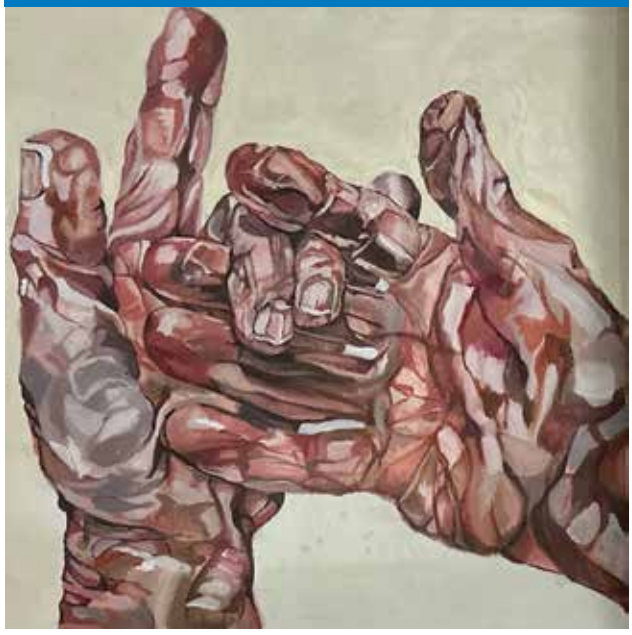
Mariah M. Shafer, MS III

In painting, it can be easy to get lost in the details and the subject's intricacies. Hands are an especially daunting specimen, with precise proportions expected by our subconscious, difficulties foreshortening already short fingers, and intricate creases, well-worn in by years of life. As I set out to recreate this piece, daunted by the details, I approached it with a clever tool I once learned from an artist years ago. Rather than a crisp, clear reference image, he taught me to begin with one blurred almost completely. The subject is indistinguishable from the background, all that can be seen are rough shapes and hues. From here, the job is simply to paint. It is not necessary to even know *what* the subject is. To lay the foundation, it only matters to see the *average* of the image. After reproducing the completely blurred image, the resolution of the reference is increased; once again, the task is simple– paint what you see. With time, layer by layer, features arise; at first, disconnected, scattered across the canvas. But soon, with even more layers, the gaps begin to fill– the once unrecognizable blur becomes familiar.

As I gazed at this work, I reminisced on my experience as a student of the art of painting. It appeared to me a striking parallel to my life now as a student of the art of medicine. You see, each patient sitting in front of us is a set of hands we must paint. Each life experience an intricacy. It is a formidable task, to capture the well-worn creases– badges of a life fully lived.

Our minds may expect a certain life story based on the subject set before us, yet we must be careful to paint an accurate picture. As a student, I find that I can often become lost amidst the details. I have noticed that the patient interview is much akin to painting an intricate pair of hands. When I am consumed by each high-level detail, the story becomes overwhelming; I focus too much on the thumb and forget to leave room for the pinky finger. As I grow in clinical experience, I am recognizing the importance of starting with a blurred image rather than a clear reference image. Instead of a diagnosis, I start with a broad differential, a blurred outline, barely distinguishing the foreground from the background. I don't *know* what I am looking at when I begin, I don't need to; in fact, it is best that I do not even assume that I could know. Rather, I blur my image by asking broad questions, attempting to make no assumptions. And layer by layer, I paint. As I narrow my focus, features begin to appear; at first, facets of the history begin to emerge from the background. The resolution becomes clearer as I place my hands on each patient. Eventually, a final layer of lab values and images scatter across the page. With time and intention, the gaps become filled and a once unrecognizable ailment becomes a familiar diagnosis.

Oil on cardstock (2.5' x 2.5'): a re-creation of *Aged Flesh* by Jo Beer.
Verbal permission obtained 10/11/2024



The task of the physician is much like that of the portraitist. It is not to paint what we *believe* we see, but what truly presents before the eye. It matters that our representation is accurate; others depend on it, *lives* depend on it. Let us not forget the proper order of things, let us not begin with the end in mind or paint the picture with assumptions. Rather, let us strive to paint our patients as they truly are, capturing every essential intricacy, every formidable feature of their well-worn hands of life.

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Hurry Up and Slow Down

Samamtha Erickson, MS I

Hurry up
you used to say
hurry up and be over
Hurry up

But now
at the end
you beg
slow down
Slow down and don't be finished quite yet
I'm not ready
I'm not done
Please —

But life doesn't listen
because life
is the spinning of the earth
and the reality of time

Life
in these moments
seems to offer only
anxiety
and bad habits
and a reason to go home at night

Hurry up and remember it all
the good and bad and otherwise
yes, even what right now feels
unremarkable

Drink it in
Because some day, it isn't
Some day, it is everything
and it's already gone

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The Things We Take for Granted as Patients and (Future) Physicians in the United States

Tiffany M. Knecht, MS II

In June 2024, I had the privilege, along with 14 fellow Sanford School of Medicine students, of traveling to San Lucas Tolimán, Guatemala to provide healthcare to various communities. Below is a reflection on how this experience shaped my understanding of both local and international medicine.

If I were to walk into the Sanford Vermillion Clinic today and mention feeling fatigued, the first test they might order is a CBC. If I complained of generalized abdominal pain, they'd likely order a CMP. For head pain after a fall, they'd likely order a CT scan, and for a wrist injury, an X-ray. Shortness of breath and coughing? Probably a chest X-ray. If I experienced abnormal vaginal bleeding, I'd likely undergo a pelvic exam, a CBC, and possibly a transvaginal ultrasound.

However, when patients in Guatemala presented with these same complaints, we didn't have access to the array of diagnostic tools that I've grown accustomed to. It may seem like a "first-world problem," but the lack of these resources made effective treatment significantly more challenging.

Our group goes down to Guatemala with stethoscopes, an otoscope, an ophthalmoscope, penlights, reflex hammers, and a butterfly ultrasound, along with suitcases full of medications. And that's it!

This is where the importance of history-taking and physical exams became clear. In our first year of medical school, we spend a lot of time practicing histories and preparing for Observed Structure Clinical Exams (OSCEs), where we ask 20 to 30 questions when entering the exam room. At times, this can feel excessive or even unnecessary. However, the ability to ask the right questions and interpret patient responses is an essential skill — especially in settings like Guatemala, where access to advanced diagnostic tools is limited. The same goes for physical exams, which are sometimes undervalued when technology can provide answers without us even speaking to or examining the patient.

After providing healthcare in Guatemala with minimal technology, I believe that the absence of such resources can actually make one a better physician. It improves listening skills and enhances your ability to rely on history-taking and physical findings to generate a differential diagnosis and treat patients empirically. Furthermore, it allows one to build rapport and trust with the patient, which is a critical component of the patient-physician relationship.

Beyond the limitations in medical technology, another crucial factor to consider is what the patients themselves have access to.

For example, if I visit a doctor in the U.S. and they tell me I'm fatigued because I'm not sleeping enough, I can simply adjust my schedule to prioritize sleep. If they diagnose constipation due to a lack of fiber, I can pick up a fiber supplement cheaply and easily from Walmart. If chronic back pain is caused by a physically demanding job, I could consider asking to switch to a less strenuous role. If dehydration is causing daily headaches, I can make a conscious effort to drink more water. These solutions seem simple to us — but in Guatemala, and even for those less privileged in the U.S., they're not so straightforward.

For example, the Guatemalan patient who comes in fatigued is a mother of four juggling household duties while making and selling clothes to support her family. Prioritizing sleep is nearly impossible for her. Instead, we might suggest seeking support from family or the community so she can rest occasionally. For the person with constipation, they may not have access to fiber supplements, whether it be a supply or funding issue, so instead we need to suggest incorporating locally available, high-fiber foods. A man with chronic back pain from working in the fields for 10 hours a day cannot simply stop working — his family relies on income from his produce. In this case, we may offer pain medication and suggest stretches to help manage his symptoms. And as for the patient suffering from headaches due to dehydration, while we could offer Ibuprofen or acetaminophen, recommending more water might not be feasible, as access to clean drinking water is limited. While we can offer a bottle of clean water for the day, we can't fix the root cause, and that's a difficult

reality to confront when you're there with the intention of helping.

These are just a few examples where the disparities between healthcare systems and the social determinants that frame societal contexts become glaring. And though the focus of this reflection is on the things we witnessed while in Guatemala, there are many people living in the U.S. who struggle from the same inaccessibility to adequate sleep, healthcare, nutritious food, and water. As future U.S. physicians, it is incredibly important to continue addressing and spreading awareness of these social determinants in our own communities.

I'll close with a few key takeaways: First, we are fortunate to have access to technology and affordable resources like fiber supplements. Second, to be a great physician, it is imperative that one really learns the basics of medicine, including history taking and the physical exam, as the technology we are used to may not always be accessible. Finally, and perhaps most importantly, wherever we are, whether in Guatemala or the U.S. — we must always treat the patient as a whole, taking into account their unique circumstances, not just their disease.

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The Language of Medicine: The Patient's Endorsement

Henry Travers, MD, FACP

Abstract

The lexicon of medicine is dynamic and new words as well as redefined old words are regularly incorporated into medical practice. For most of these words, there are sound reasons for their use. For others, the reasons are not so clear. One example of the latter, the word *endorse*, has appeared in medical records meaning to describe, note or confirm the presence of something. The typical context is a patient's description of some aspect of illness such as "The patient *endorses* depressive symptoms." Describing something absent requires a negative, i.e. *does not* endorse. This meaning of *endorse* is found in two standard English dictionaries, resurrecting a meaning declared obsolete by yet another English dictionary. Except for that fact of its widespread use in medical records and published literature, there seems to be no particular reason why some use the word in place of more transitive and arguably more precise words to describe what a patient experiences of illness.

Physicians have recorded their interactions with patients since Hippocrates, the record structure and the language changing over time.[1] In the late 1820s, as part of the history of present illness (HPI), one might read "On going to bed she complained of a cold creeping of the skin..."[2], the term "complained" persisting today as the patient's *chief complaint* (i.e. the primary symptom or event causing someone to seek medical care). Medical students continue to be taught to record this in the patient's own words.

Gillean and Ries[3] observed that "complaint" or "complains of" could be contextualized negatively as "whining," contending that the term has fallen out of favor and was replaced by more focused terms (e.g. describes, reports, expresses). Their main focus, however, was on another word, *endorse,* used in place of "complains of" (e.g. "the patient endorses depression"). They provided ten examples of *endorse* meaning "describe" or its synonyms from a review of major psychiatric journals over the 2-year period 2012-2013 along with four examples from the same review where *endorse* meant something else. Questioning *endorse's* use in this way, they called it a "stylistic catachresis." Others have raised similar questions.

Ronald Renolds,[4] in a 2023 letter to the editor of the *American Journal of Medicine*, took the authors of a previous paper (Moss et al.)[5] to task for the use of *endorse*, saying, "When a clinician says 'the patient endorses chest pain', they are saying that the patient thinks that chest pain is a good idea, not that the patient is experiencing it." A blog post by a member of the University of Cincinnati internal medicine faculty in 2018 called the use of *endorsed* to mean "reported" by a 3rd-year medical student, "a misappropriation of a word handed down by the *apprenticeship* [italics added] of medicine."[6]

In responding to Reynolds, Moss et al[7] quoted the medical definition of *endorse* from the Merriam-Webster dictionary.[8] Acknowledging the possible validity of the linguistic debate, they concluded that "The need for a standardized medical lexicon is essential, necessitating an adaptive design to the current environment around clinical care, health policy, and the proper meaning and delivery." Their general justification for the use of *endorse*, with its reliance on authority and the lexical needs of medicine, is non-specific; it does not tell us why *endorse* is the preferable word to indicate what a patient says.

Although the Merriam-Webster dictionary is not the only dictionary referring to a medical meaning for *endorse,*[9] its examples of the use of *endorse* in a sentence do not include the medical meaning.[10] An example from the Cambridge Dictionary does.[11]

The process by which a new word or a new meaning of a word is incorporated into the Merriam-Webster dictionary begins with the dictionary's editors collecting citations of a word's use and recording them in a database. Use illustrated by the citations is then evaluated against three criteria: frequent use, widespread use, and meaningful use. The first is quantifiable, but the last two can be more subjective. Merriam-Webster explained the first two criteria: "Frequent means that the word is used that way over time. If it's a trendy flash in the pan that comes and goes, we don't enter it into the dictionary. Widespread usually means that the word is used by people across industries or regions, in other words that an average adult is likely to encounter the word and need to know what

it means."[12]

The linguist Jeffrey Elman[13] described the lexicon as a "repository of facts concerning individual words, and a set of rules." The "facts" are words themselves, symbolic representations that can be connected with specific contexts and properties through the "rules". For the English language, a respected arbiter of the "rules" is the Oxford English Dictionary.

The Oxford English Dictionary, available online at https://oed.com, lists 18 definitions for *endorse* dating back to 1572. Its use to mean "to characterize, describe entitle" from the years 1596-1655 is labeled "obsolete, rare." A related definition dating from 1847 reads "To confirm, sanction, countenance, or vouch for (statements, opinions...)." Thus, except for a meaning regarded as obsolete, the closest the Oxford English Dictionary comes to the definition offered by Merriam-Webster and illustrated by the Cambridge Dictionary is to "confirm" or "vouch for" a statement. One could argue that the Oxford meanings "confirm" and "vouch for" are similar enough to "reporting the presence of", but confirming or vouching for something is an after-the-fact statement rather than a declarative one. Dueling dictionaries are unlikely to enlighten us further.

For in-depth searching about the medical use of *endorse*, the tool DEVONagent Pro[14] enables users to see how search terms are related and presents results in multiple formats including general topics and something analogous to a word cloud. The tool uses multiple search engines, scanners related to specific topic areas, and Boolean operators. It employs artificial intelligence (AI) to connect additional related words to the original search words. Using the search terms "definition BEFORE endorse", "endorse BEFORE symptom" and "meaning BEFORE endorse" and the search engines and scanners listed in Table 1, the tool returned results separated into topic areas for each search (Figure 1).

While the meaning-endorse combination returned definitional topics, the symptom-endorse combination returned clinical topics, many related to psychiatry.

The searches confirmed the use of *endorse* in summary descriptions of symptoms and other aspects of illnesses[15-17] and it indicated that *endorse* was most extensively used in neuropsychiatry journals or in papers dealing with behavioral aspects of disease (Figure 2). No citation offering

Table 1. DEVONagent search tools

Search engines	Topic browsers
arXiv	Blogs
Baidu	Browsers
Bing	Dictionaries
DuckDuckGo	Government
Ecosia	Medical
Google	References
Google PDF	Science
Quant	
Yahoo!	

Figure 1. Topic classifications of searches. (a) Meaning and endorse; (b) Symptoms and endorse. The numbers to the right are the total citations found under each topic.

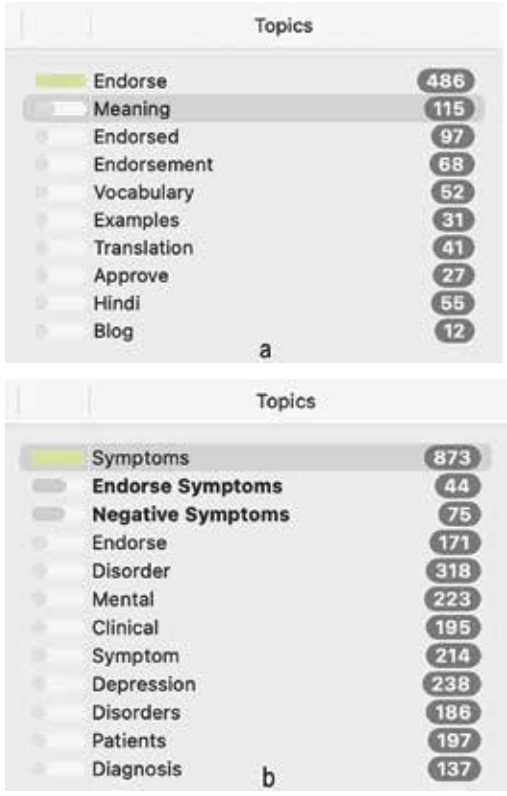

Figure 2. Terms related to endorse-symptoms search. The red circle is the core topic with orange circles showing highly related terms and purple circles showing less strongly related terms. Note the frequency of terms related to psychiatric illness.

an explanation of why *endorse* is preferable to "describe", "report", "note", or synonyms of these words was found in these searches.

Catachresis or no, *endorse* is commonly found in patient notes written by students at the Sanford School of Medicine, by South Dakota physicians in active practice, by students and residents at other medical schools, and in nursing notes.[18] What is curious is how a word most commonly meaning *inscribing one's signature* and *openly approve or recommend* came to mean "report or note the presence of"? When asked how he started using the term in his own notes, one Sanford School of Medicine student said, "When I was a junior student, I remember hearing it from upperclassmen students who would give us lectures and eventually I started to use it myself when I entered clinical rotations." A currently practicing orthopedic surgeon in South Dakota offered a similar scenario for his use.

There are some common reasons why words develop new meanings, a phenomenon called semantic change and succinctly described in Wikipedia.[19] Of all the reasons scholars have cited for semantic change, I think the one most likely to underlie the new medical meaning of *endorse* is the influence of others. For students of medicine the customs of our teachers, our most significant influencers, are often spontaneously copied whether that teacher is a professor, a fellow student, a more senior trainee or a physician in practice. If this conjecture is correct, there had to be a beginning, someone who first decided to use *endorse* in this new way.

Evidence suggesting *endorse* got its start in the field of psychiatry offers no solid clues about why *endorse* is preferable to "describe" and its synonyms, words that are arguably more specific and more transitive. Does *endorse* conceptually change our perceptions of what our patients are telling us? Does it improve precision and clarity?

I have not found a persuasive explanation of why *endorse* should be used in place of more precise terms in a medical record or case description. I think it *does* change our perceptions of what patients are saying, patients' own words in their own contexts transformed into doctors' summary contexts. Rather than improving precision and clarity, I think it obscures both, first because the most frequent meaning and use of *endorse* is so different and second because other words (describe, report, note, confirm, deny) focus attention on what the patient is *saying* rather than what the physician perceives the patient is *confirming*. Not every new use of a word, even if it is selected for inclusion in some standard dictionaries, should survive and many have not. This new meaning of *endorse* should be one of them.

Those who have challenged *endorse* as a catachresis in the face of its apparently widespread use, its appearance in well-regarded dictionaries, and the self-evident need for a dynamic medical lexicon, so far seem to be swimming upstream. David Lindberg suggested a reason why this may be so. He believed that because linguistic communities are passionately siloed, "we have no choice but to accept a diverse set of meanings as legitimate and do our best to determine from the context of usage what the term…means."[20] In other words, discussions of precision in medical or scientific language are unlikely to reach consensus and diversity of meaning must simply be accepted; we then "do our best" to discern meaning from each and every context.

I think Lindberg throws in the towel too easily. Were we able ask that giant of French medicine, Pierre-Charles Louis, about *endorse*, we would be reminded about the importance of clarity by someone who taught us the systematic understanding of clinical case descriptions we embrace to this day. Louis pointed out in 1835 that the difference between exactitude and vagueness can mean, for the patient, the difference between truth and error.[21]

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moths

Marilee Kneeland, MS IV

during night shift the moths emerge

gathering at your bedside: drawn to glowing brown skin,
drawn to warm fire in your brown eyes
three moths and a flame

eclectic and fluttering lepidopterans: one for your feet,
two for your head, three for anything remaining unsaid
you waved us in, thin-armed but sure—one with a plan,
two with a plea, three was I, waiting to see
you chuckled in the evening, warm
curled edges of your mouth gummy and wide;
the blue-gowned moths fluttered around
from head to toe, bed to ground
you smile at me, actias luna student
with her uncertain hands holding one end of
a stethoscope to your chest

they're sending me home
(your voice raspy like an embered campfire)
my family is taking me soon
I'm ready to go
nodding eyes met: understanding.
where knowledge has
joined hands with acceptance
where the metastatic early decomposition
of a body consuming itself
does not douse your flame
us moths of Ibu will always be drawn to your midnight gaze
you know
I will not see you again
you pat my hand three times
remember child
one: to be patient, two: to be kind
three: lose the fear of speaking your mind

this moth remembers you for what you bestow:
one for your peace, two for your pride, three
for this notion: when you've tried you have tried

Trauma 1

Marilee Kneeland, MS IV

yours the effort without trying
in rain cogent, cold, uncrying;
when we all are slowly dying
who wrote the litanies unseen

you had a ticket to that sundown
a fast track out, a gold round;
crossed hemispheres to be found-
pathways gleaming cortex leaked

collective globus was the main course
anticipation's final recourse
to the questions slowly detorsed
if you have solutions speak

the morning, red, birthed slowly
illumined pain-unkempt, unholy
from these pulses high and lowly
and the hallowed list we keep

you had that spotlight for a moment:
fountain heme, scarlet pigment,
globin slick upon our pavement-
rhythm drums from audible to free

in betadine-encrusted twilight
floating high above the op light
day's-dreams drifting into by-life
upon a calm chaotic sea.

Wager

Marilee Kneeland, MS IV

we were not called to carve
pale flowers from the spring of life to
wager days and time, dime and
malaise in endless
gambles through the night

the gods who deal out scope
and scalpel forgot to keep their watch:
they gave no remedy for this

no remedy for empty halls
for hands and hearts and
tears we skirt around
for *what's for lunch* paired next to
where's my son and for all that's
said and said and said and done

we wagered nights and hours,
towers and lights for this
they wagered lives and hopes and
tries and fails to miss
to miss that hand in hand and
heart to heart
and we were the lucky ones
with all these cards dealt out with
love and loss, dove
and dross within these bets we've
weathered out

still the weight is not so sterile
in this dish of days it grows; all
these years and walls, halls and
fears are how we know and grow;
in that maze of scattered paths
when time is enemy of past
this weight is what we have—this weight
is what will last—for how else can
we show: which are the things we hold
and which are those we here bestow
intoned, intombed: let go

Editor's note: Another poem written by Kneeland, *Hues of You*, was granted an award and published in the summer 2023 edition of *Pharos, 2023; 86 (3): 45.*

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The Brain, The Mind, The Person

Hannah Paauw, MS IV

100 trillion synaptic connections have sparked extensive philosophical, psychological, and scientific debate. While a reductionist approach to exploring the brain has facilitated the study of physiology and the development of treatments, it often falls short of capturing the complete essence of the human experience. Medicine, while concentrating on the brain, frequently overlooks its role as the organ of the mind. The mind encompasses consciousness, original thought, and the rich experiences of being human — elements that cannot be fully understood by examining the physical components alone. Physicians must address the subtleties of the mind in their approach to healing the brain, recognizing that both dimensions are crucial for true well-being.

Artist's note: For this project I utilized "Watercolor Brain – Cross Stitch Pattern" from Cross Stitch Lovers

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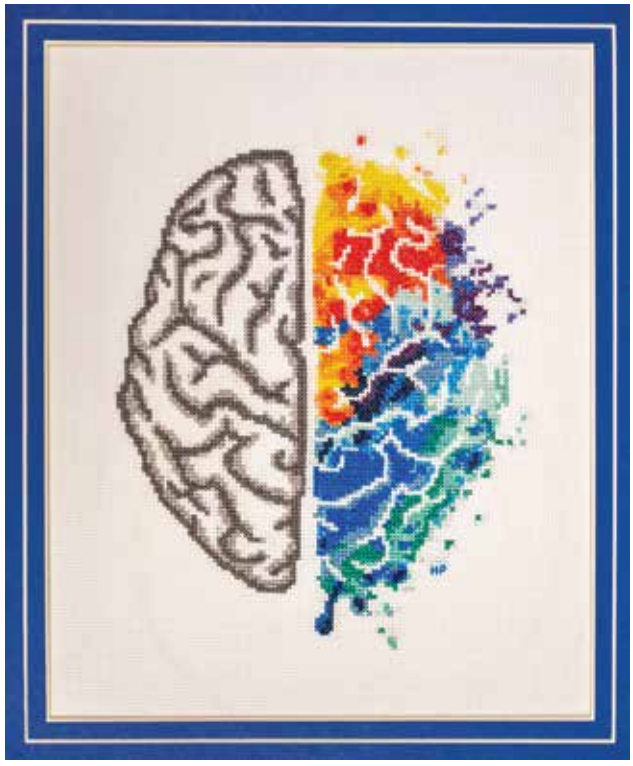
The Brain, The Mind, The Person **cross stitch.**



On Advocacy: A Medical Student's Perspective on the Alzheimer's Impact Movement National Forum

Sara Alhasnawi, MS I

Attending the Alzheimer's Impact Movement (AIM) Advocacy Forum for the first time felt like stepping into a collective heartbeat, where every pulse was a rhythm of hope, determination, and shared purpose. The gathering was more than just a meeting of minds—it was a convergence of souls bound by a common quest to unravel the mysteries of memory and restore the light to those whose minds have dimmed. I was invited to be part of the South Dakota advocacy team, as they embarked on a mission in DC to plead with congressmen to support Alzheimer-related bills. In the words of Thomas Elness, the policy director of the SD Alzheimer's Association chapter, "At first glance, a retired chiropractor from small-town South Dakota, a West River cowgirl in a studded fringe jacket, and a young Muslim woman born in Yemen don't have much in common. Alzheimer's changes that, like everything it touches." His artful words paint a diverse picture of our dear group of six South Dakotans, a group that surprised many at the Advocacy Forum and welcomed me into their embrace so effusively.

Though our differences could not be greater, our common thread of being touched by Alzheimer's tied us together. We were brought to D.C. on the promise of meeting with lawmakers to make a lasting impact on Alzheimer's policy.

We landed in Washington D.C. on April 7th, 2024, and met as a group for the very first time. Following a few introductory sessions, my fellow SD advocates told stories of deep heartbreak, their lives touched irreversibly by Alzheimer's. For the next three days, we attended eye-opening sessions regarding advocacy, research breakthroughs, and moving celebration of life. Not everything was great news: I heard of unaffordable drugs, a lack of primary care physician training to diagnose Alzheimer's, and insufficient research funding in certain states. Yet, as I moved through the sessions, each word spoken felt like a thread, weaving together the past, present, and future of Alzheimer's research and the lives affected by each discovery. The air was thick with the promise of breakthroughs yet to come, each a beacon of hope on the horizon. The stories shared by caregivers and advocates resonated deeply, echoing with the quiet strength of those who have walked this disease's long, winding road.

In the midst of it all, I felt a renewed sense of purpose. The connections made, the knowledge gained, and the collective spirit of the attendees filled me with a deep resolve to continue the fight against Alzheimer's. As a scientist and a future physician, these stories showed me a world where I could be a puzzle piece in the overarching solution to this devastating disease. Thus, I resolved to give my best effort in contributing to the makings of a cure and providing the best equitable care for my future patients. As an advocate, I intend to continue pushing for reform, meeting with lawmakers, and amplifying touching stories that need to be heard. I will always be reminded that the conference was not just an event, but a reminder that in the face of such profound loss, we must hold fast to the belief that even the most elusive memories can be safeguarded. One day, we will find a way to keep the lights from fading.

Leaving the conference, I carried with me not just information, but a sense of kinship with my fellow South Dakotan advocates and a strengthened commitment to the cause.

Conferences like AIM make us feel like our efforts are never in vain, as thousands of individuals will always be there to carry on our momentum. AIM was a reminder that while the path ahead may be challenging, we are not walking it alone. Together, we are the guardians of memory, the keepers of hope, and the bearers of a future where Alzheimer's is but a distant memory itself.

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Juntos Podemos: Ethical Considerations of Medical Outreach to Lower-Resource Countries

Narysse Nicolet, MPH, MS IV; Madigan Moore, MS IV; Leah Naasz, MS III; J. Samuel Vassar, MS IV; John Richter, MS IV; Lindsey A. Kroboth, MS, MS IV; Jessica Linke, MS IV; Andrew Lund Guymon, MS IV; and Daniel Megard, MD, FACP

After two flights and a four-hour bus ride over winding mountain roads, we arrived at what would be our home for ten days. San Lucas Tolimán, San Lucas for short, is situated on the southern shore of Lake Atitlán in Guatemala. The area is known for its tourism, but also preserves traditional Mayan and Guatemalan lifestyle, with local women often seen wearing vibrant-colored Mayan outfits and men carrying machetes for a day of agricultural work.

The Mission of San Lucas was established in 1963 by Father Greg Schaffer. Inspired by the community, Father Greg partnered with local leaders to create programs aimed at improving healthcare, education, and land distribution. He dedicated nearly half a century to serving the people of San Lucas, leaving behind a lasting legacy. He later received the Order of the Quetzal award from the Guatemalan government, an honor for artistic, civic, humanitarian, or scientific achievements. One of his final projects was establishing the Friends of San Lucas, a non-profit organization that continues outreach in the community and funds the mission's initiatives. Today, the mission's programs, led by Guatemalan community members, serve their communities by listening and assisting in meaningful ways. These programs include education, coffee production, construction, charity work, a women's center, a visitor program, and a hospital in San Lucas.[1]

The University of South Dakota Sanford School of Medicine (USD SSOM) has a longstanding relationship with Friends of San Lucas. However, due to the COVID-19 pandemic, student trips were suspended from 2020 through 2022. In 2023, with the support of Drs. Mark Beard and Daniel Megard as well as two senior medical students, USD SSOM resumed its international outreach trips. This year, our group included 16 students — seven fourth years, one third year, and seven rising second years — along with three attending physicians specializing in family medicine, obstetrics and gynecology, and internal medicine.

Our typical day involved serving at medical outreach clinics in surrounding rural communities from 9 AM to 3 PM. Community leaders were notified in advance that we would be there, allowing patients time to come for walk-in appointments. Patients were registered through the local hospital system using an iPad. Then, medical students would take vitals and triage patients. Consult stations were staffed by a senior medical student (3rd and 4th years) and a junior medical student (2nd years) to collect basic histories and perform physical exams. The students then collaborated with an attending physician to discuss each patient's plan for medical management. (Figure 1). A translator was assigned to each student consultant pair (Figure 2).

Common reasons for seeking care included viral illnesses, poor growth/malnutrition in children, allergies, prenatal care in newly pregnant mothers, diabetes, hypertension, and

Figure 1. Students conducting clinic in Guatemala. This demonstrates a typical clinic set up with triage in the front, medical consulting stations on the sides, and a pharmacy table in the back.

Figure 2. Students Benjamin Kulesa. MS II (left) and J. Samuel Vassar, MS IV (right), with a medical translator conducting a history and physical for a family of patients at a medical consultant station.

arthritis in older patients. We provided common medications like antibiotics, non-steroidal anti-inflammatories, antihypertensives, and vitamins. We also coordinated with hospital staff to ensure patients received follow-up care when possible, including therapies, consultations with specialists, and referrals to community programs for diabetes, hypertension, and malnutrition.

After clinic, students had the opportunity to explore the mission's various programs. We toured Hospital Monseñor Gregorio Schaffer (Figure 3), learned about Café Juan Ana coffee, which supports fair trade and protects the income of local coffee growers, and visited the Women's Center, which helps women in the area develop skills in cooking, sewing, and traditional medicine.

Figure 3. USD SSOM students and mission staff pictured in front of Hospital Monseñor Gregorio Schaffer in San Lucas Tolimán.

Our group was a mix of students that had previous experience in outreach trips and others who had never left the U.S. Beforehand, some students had concerns about language barriers, minimal healthcare access, and being based in a remote location. However, thanks to the mission, once we arrived and began attending clinics, students were pleasantly surprised to find community workers who were trained in medical translation, well-established community health programs, and a solid medical system already in place.

Major points of reflection among the students included the ethical considerations surrounding "medical mission trips," especially regarding language translation, medical management, and treatment. We were acutely aware of our presence as visitors from the U.S. helping in a lower resource country. Our group was careful not to view the experience as medical tourism. Instead, we focused on the opportunity to learn about their culture. Noting the importance of listening to community members and leaders to understand their needs, rather than imposing our own ideas of assistance. Our partnership with an organization deeply rooted in the San Lucas community, along with the guidance of local leaders, was invaluable in reinforcing this approach and ensuring that our efforts were aligned with the community's needs.

Although students were encouraged to practice Spanish, translators were essential and communication challenges still existed. Spanish translators were very helpful in guiding students in language and cultural norms; however, some patients spoke only Mayan. Mayan translators at the clinic were far fewer in number than Spanish ones. In one instance, a patient's daughter translated from Mayan to Spanish, and then the mission translator converted it to English. While not ideal, this was the best solution. Lack of direct translation from Mayan to English in combination with disparate health literacy complicated the tasks of parsing out medical concerns and relaying treatment plans.

Another ethical concern was prescribing medications and giving medical advice to patients due to lack of resources, cost, and cultural differences. The mission uses a general medication formulary, emphasizing the need to bring medications that are available for sale in Guatemala. However, due to resource scarcity, it was challenging to prescribe treatments in the same way we would in the U.S. One patient chronically suffered from amoebic infections despite drinking clean water; further questioning revealed that she was using tap water to brush her teeth, leading to reinfection. Community leaders recommended we prescribe to manage symptoms rather than to treat as she could not afford the steps required to prevent reinfection and would therefore likely continue to be reinfected.

Dietary advice posed similar dilemmas as many parents were concerned about their family's nutrition. In Guatemala around 1 in 2 children suffer from chronic malnutrition.[2] It felt ingenuine to recommend increasing protein intake when food access was largely limited to some vegetables, beans, tortillas, and rice. This constraint also complicated dietary counseling for chronic conditions such as diabetes and hypertension.

Cost of treatment was another consideration. In Guatemala, the average person earns $3-4 U.S. dollars per day,[3] meaning treatments beyond a short course of medications could pose a significant financial burden. For chronic conditions like hypertension or diabetes, we would provide a 30-day supply of medications. In communities with established follow-up care, patients would be connected with local health programs for ongoing management, but this was not universally available. In remote communities without these programs, our medications had to bridge patients until the next visiting group arrived. In some cases, more definitive care, such

as surgery, or further work up may have been indicated. However, due to the cost, follow up with labs, surgery, or additional treatment was difficult to recommend.

Cultural barriers, such as discussing psychiatric conditions and violence in homes, also posed a challenge. Due to cultural norms women may not want to discuss things happening in their homes or ask for help if experiencing domestic abuse. In one such case encountered this year; students utilized interpreters to determine what was a socially acceptable direction to guide the patient. In most rural, Guatemalan communities, domestic violence resources are scarce or non-existent. Ultimately it was decided that the patient should report to a local clinic if she ever felt unsafe in her home. Many other patients presented with somatic complaints with underlying mood disorders. As psychiatric medications and therapies would often be too costly or difficult to obtain for many patients, students focused on sharing stress reduction techniques with patients such as breathing techniques, taking a walk, or talking with a trusted individual.

This highlights the adaptive problem-solving required to manage chronic conditions in resource-scarce areas where the availability or timing of follow-up care is uncertain. We focused on preventative medicine, viewing simple interventions such as vitamins and dental hygiene supplies as valuable investments for our patients. Given our short time in Guatemala, we worked to address the more acute problems and provide reasonable solutions with guidance from the local community leaders.

Concepts like the Health Insurance Portability and Accountability Act (HIPAA), documentation for reimbursement, and litigation are different or absent in Guatemala. Privacy was limited, with clinics held in common spaces where many people gathered at once. In smaller communities, most people knew each other, and sometimes clinics were conducted in homes. We typically had multiple consultation stations in one room, with private exams conducted behind a simple barrier in a corner. For some communicable diseases, such as cases of scabies, we had to discuss details with community leaders to ensure proper follow-up, even though this posed privacy concerns. Documentation emphasized information for future medical groups rather than U.S. insurance companies and so involved only basic information such as the chief complaint, physical exam details, and treatment. The high regard in which patients held our recommendations reinforced the importance of practicing within our medical scope. There was less concern about litigation than in the U.S., which could lead to potential malpractice if not carefully prevented.

Our reflections after the trip centered on privilege, culture, and flexibility. We realized how fortunate we are in the US to have access to specialists, medications, general care, and even ease of access to medical information on the internet. While we acknowledge the inequities surrounding care within the US, we are grateful for the opportunities available. In Guatemala, we learned the importance of being flexible with treatments. If our "textbook plan" wasn't feasible, we considered functional medicine techniques like using plants as medicine or other traditional remedies. Understanding what was available in terms of diet and resources was vital to providing meaningful assistance. We also reflected that although the language barrier existed, having a basic level of Spanish proficiency was sometimes sufficient for communication as it met the level of health literacy of most patients.

Looking ahead, we believe this trip has equipped us to be more mindful of care in many ways. We will be more thoughtful of health literacy when working with our future patients. Even when speaking the same language, we saw how crucial it is to communicate in terms that can be easily understood. We also anticipate being more flexible in our practices. For example, we would be more willing to incorporate traditional and functional medical approaches into our practice, recognizing that Western medicine and traditional remedies can complement each other. Additionally, flexibility in practice helps meet patients where they are and work with them to achieve their personal health goals. Lastly, many of us hope to continue engaging in global health outreach and improving our Spanish language skills as we move towards residency and beyond.

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Humility, Humanity, and Heritage in Medicine

Avery D. Franzen, PhD, MS IV; and Riley T. Paulsen, PhD, MS IV

Introduction

Avery is an MD-PhD student and Riley is an MD student that received her PhD prior to matriculation to medical school. Both are members of the class of 2025 that will be couples matching into psychiatry and obstetrics and gynecology. They are married and are proud parents to one son, Ramsay, who was born 2 months prior to Riley starting medical school. They hope that you enjoy the series of photographs that capture their journey through medical school through the lens of their son, above whom they cannot think of a greater example of humanity in medicine.

Despite being only a few days old, Mom and Dad have me reading *Dr. Kandel's Principles of Neural Science*. If they thought this would make me nap without being held, they were mistaken. In the background is *Neural Networks for Babies*, but fortunately I had a head start having listened to Mom's PhD defense while I was in her belly.

Mom was practicing for the OSCE, but I could not be left out. I needed my own medical kit complete with reflex hammer, otoscope, stethoscope, thermometer, and Band-Aids. One must also always remember to wear eye protection. Unfortunately, at this time hand hygiene is a bit of a struggle for me. Similarly, patients do not seem keen on my use of equipment that I like to disinfect with my mouth.

Mom and Dad have started their clerkship training on the Yankton Campus, and I am giving their cohort a refresher on some content that will be tested on their shelf exams. Any marker I get on this white coat should be able to come out in the wash, right?

For Halloween this year, I thought it was time to get my own pair of scrubs to match my parents. I do see the appeal – they are quite comfortable, yet practical, and I will be able to get candy on them in a guiltfree manner.

The blue sterile fields are too alluring to touch for me, and I would need several steps to view the operation, but I do enjoy wearing the bouffant hat. Similarly, they do not provide shoe covers in my size. I am not sure if I will like surgery like my Mom or enjoy pharmacology as much as Dad, or something else entirely, but I have plenty of time to figure that out.

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The Anatomy of Grief: Processing Death as a Medical Student

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Medical training, particularly during clinical rotations, exposes students to death and the emotional weight of loss. Whether it is the death of a patient they have cared for or a personal loss they experienced during their training, dealing with grief is an inevitable part of a medical professional's journey. But nothing can truly prepare someone for the first time they encounter death, or rather, for the first time they feel the impact of death.

I was halfway through my third year of clinical rotations and was on my acute care general surgery rotation. By this time in my training, I was comfortable with taking consults and rounding on patients first and then presenting to the residents or attending surgeon before they saw them. Early one morning, I printed the patient list and marked a few that I planned to see before team table rounds. One patient I marked on my list, I will call him Tom, is one I will never forget.

Tapping on the sliding glass door before entering, Tom and his daughter pleasantly greeted me as I stepped into the hospital room. I explained my role as a medical student and asked if it was okay if I talked with and examined him. He agreed and waved me over to the bed. Tom appeared to be a fairly healthy man in his 50s. Last night, he had an acute onset of abdominal pain. Like most middle-aged midwestern men, he rarely went to the doctor unless his family forced him to. So while at first refusing to go to the hospital, his teenage daughter insisted that she drive him to the emergency department where he was admitted for likely cholecystitis.

Along with talking about what brought him to the hospital, we talked about the weather, his family, the upcoming and likely disappointing Minnesota Vikings season, and other common topics of small talk. I explained that the surgeon and I would stop by later this morning with a better plan. He reached out, gave me a sturdy midwestern handshake, and said, "That sounds like a plan to me. Thank you, young man." I cannot remember every detail of what we discussed, but I remember leaving the room thinking, "Wow, what a nice guy." After discussing his case at table rounds with the rest of the general surgery team, the surgeon and I stopped by his room again. We explained to Tom that we had consulted some other services, ordered some additional labs, and would check back in later today after several surgeries.

Several hours later, I sat back down at the computer station after several procedures to check on the patients. When I hovered over Tom's name to see if the new labs had resulted, there was a big red banner that read "deceased" over his name. Confused, I double-checked his name and date of birth. Only six hours had elapsed since my last conversation with Tom, this must be an error. I frantically clicked into his chart and found a long, detailed note from the hospitalist. It read that in just a few hours, Tom developed acute liver failure and died. I was completely baffled by what I was reading, and I ran to my attending surgeon, who was also shocked. It was later determined that his slightly elevated liver enzymes in the setting of cholecystitis masked the true etiology and severity of his liver failure. However, it was incredibly unusual that his liver would fail in just a matter of hours. Even after an autopsy was performed, no reason could be found for the liver failure.

His death rattled me to my core. Did I miss something? Was there something more I could have done? Did I somehow contribute to him dying? These questions spiral in my mind. Then I thought about his three children, all similar in age to myself, learning that their healthy dad had died of some freak liver failure. Being able to point a finger at someone and call them a villain might have been the easiest solution. But despite our team's best efforts and correctly following all guidelines, the worst case scenario occurred. So instead, the medical team was left shrugging their shoulders and his family was left without a father and without answers.

For the next several weeks, I felt this sense of numbness. I was not sad, angry, or guilty, but I continued to feel this lingering heaviness wherever I went. I was still able to laugh and smile, but there was this feeling I could not shake. Maybe I was too busy on my clinical rotations to fully comprehend what I was feeling, or perhaps I was just too naive. But at one point, I even found myself searching his name online and reading his

obituary. I read about him growing up, marrying his high school sweetheart, the birth of his three children, how he liked to hunt and take his daughters four-wheeling, and all the other qualities that made him "Tom."

This was not my first time dealing with death. I had experienced the deaths of several other patients and even family members, but for some reason Tom impacted me differently. I replayed my conversations with him but struggled to remember anything besides routine small talk. I then reread my notes in the electronic medical record, looking for any mistakes. I was professional, had not gotten too personal or involved with him, and found no medical mistakes for me to blame myself. I was searching for anything to make sense of why his death continued to weigh so heavily on me. But once again, I was left confused.

Death and grief are universal human experiences, yet in the context of medical training, it is often under-discussed and underestimated in terms of its emotional impact. The sudden and unexpected death of a patient for the first time forced me to confront these new and unfamiliar emotions. It was disorienting. Did the surgeon, hospitalist, or nurses feel like this too, or was it just me? Why did I, the medical student with the least responsibility on the team, feel this pervasive numbness? There must be some reason why I feel this way, right?

Prior to this, I believed that grief only occurred after traumatic experiences or to those who lost someone they had a close personal relationship with. Not necessarily. Grief is a deeply individualized, personal, and multifaceted experience, and there is no one way to predict when it will happen or describe how it affects someone. The death of a patient can affect anyone part of the healthcare team, regardless of how much or how little they were involved. While painful and unpredictable, these feelings serve as an important reminder that healthcare workers are human.

The first time experiencing an unexpected patient death transformed my view of patient care. Tom's death highlighted the importance of empathy and personally connecting with patients, even if only briefly. This experience also underscored the necessity for medical professionals to seek support and employ strategies to manage grief. Support systems, open conversations about emotions, and self-care practices are vital to cope with the emotional toll of our work. Had I known what I was experiencing, perhaps I could have utilized some of the resources and support I had available. Recognizing and addressing these feelings can ultimately help us provide better care and support to those we serve.

As I apply for residency this year, I know that death, both planned and unplanned, will always play a role in my life. The structured environment of medical training often emphasizes quantitative facts and procedures, but when faced with a patient's death, we as students are forced to confront the emotional and ethical aspects of patient care in a new way. Encountering death as a medical student was a crucial part of my growth as a physician. The feelings of grief that followed eventually faded and were overshadowed by the countless other reasons that motivate my passion for healthcare. In fact, those dark memories of death only make the feelings of fulfillment of helping people through their vulnerable moments even more special.

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