ABSTRACT

The Art of Empathy:
An Argument for the Use of Acting Training in Medical Education

William Jackson Counseller

Director: Stan Denman, Ph.D.

This thesis argues for the incorporation of theater performance training into medical education. Theater performance training applied to medical student education would enhance clinical skills and patient interaction competency by specifying preexisting clinical training which already utilizes role-playing and Standardized Patient interactions. Through stories, studies, and experiences I expose the need for a type of art education that trains physicians beyond the science of medicine. The expected training in the science of medicine is not sufficient, I argue, to make an excellent physician. A supplemental education in performance art is necessary for the improved application of medical knowledge in a patient-care setting.

APPROVED BY DIRECTOR OF HONORS THESIS:

____

Dr. Stan Denman, Department of Theater Arts

APPROVED BY THE HONORS PROGRAM:

____

Dr. Elizabeth Corey, Director

DATE:_______________________

THE ART OF EMPATHY:

AN ARGUMENT FOR THE USE OF ACTING TRAINING IN MEDICAL EDUCATION

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Jack Counseller

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To my family and mentors who made my education and pursuit of knowledge possible.

Thank you.

PREFACE

I set out to write this thesis to support a long standing feeling I had; a feeling that there was some skill or talent excellent physicians had that set them apart from their peers. I never believed that this talent was found in their knowledge of the medical sciences. Very few patients, aside from medical professionals as patients, are constantly thinking about how much their own doctor knows or how competent they are in pathology or anatomy. The assumption patients make is that every doctor knows the requisite science to perform their job and treat their patients. So, the interpersonal skills I was observing while shadowing different physicians existed outside of their realm of medical knowledge. It was not in their knowledge but the delivery of their knowledge to their patient that set physicians apart, in my mind. The elusive "art of medicine" became clearer as I was able to distinguish between the science of medicine, what the doctors knew, and the art of medicine, how they delivered their knowledge.

As a pre-medical student, I wondered which of my required classes taught me the art of medicine. I was hopeful that my undergraduate education was going to prepare me to be an excellent physician in all facets. However, it appeared that none of them taught me the art of medicine. It seemed impossible that the required physiology, biology, chemistry, organic chemistry, and co-requisite labs taught me and other pre-medical students the art of medicine. After completing all of these courses, I learned that they only taught me the science of medicine.

As an undergraduate, I majored in theater performance paired with my pre-medical course work. My time outside of the science lecture halls was spent on stage.

The longer I shadowed physicians and performed on stage, the more connections I saw between the two. The same skills I was taught to perform with were the skills the doctors, mostly unknowingly, were using to navigate the social gymnastics of a patient interaction. These skills included learning how people communicate, practicing empathy, and navigating human emotions. Although not tested for, these skills are requirements for practicing medicine. It seems that the science of medicine has been a required and tested aspect of doctoring, while the art of medicine has been left to the individual character of physicians. I hope that studying performance can assist in the education of medical students by using preexisting acting vocabulary to clarify and train the art of medicine.

This thesis will layout the argument for the incorporation of theater training in medical education through four chapters. The first chapter will cover the relationship between art and medicine that has existed since antiquity. Elaboration on this relationship in chapter one will reveal the state of modern medical education and its relationship to art and art training. Chapter two will clarify the need for theater training specifically as an effective art training in medical education. This chapter will explain the specific skills theater teaches like playing action, listening, team skills, and empathy. Chapter three picks up with the specific skills and outlines ways to incorporate them in the medical education classroom through standardized patients and acting exercises. Chapter four ends the project with concluding remarks and a brief discussion on the nature of storytelling and its subjective nature. Ultimately, through stories, studies, and experiences I expose the need for a type of art education that trains physicians beyond the science of medicine. The expected training in the science of medicine is not sufficient, I argue, to

make an excellent physician. A supplemental education in performance art is necessary for the improved application of medical knowledge in a patient-care setting.

CHAPTER ONE

The Relationship Between Medicine and Art

The Hippocratic Oath, written by the Greek physician Hippocrates, was used to teach the responsibilities of healthcare to early physicians of the Greek tradition. Modern medical schools have adapted The Oath to fit their mission.[14] The Oath is still widely recognized by physicians and student doctors today. Upon closer examination, a reader will notice that the word medicine is used only once in the Hippocratic Oath. The word art, on the other hand, is used five times. Medicine as an art is not a foreign concept now, nor was it a foreign concept to Hippocrates over 2000 years ago. The art of medicine persists, but it is not well defined. How does one practice the 'art' of medicine? Furthermore, how do physicians train in the 'art' of medicine? These questions are hard to answer. Especially when the recent approaches to medicine and medical training have been mostly scientific in nature, neglecting the fullness of the human experience present in medicine.

It seems that the strictly scientific aspects of medicine are more easily defined and practiced. People who do not work in healthcare could very readily provide an idea of what physicians do every day when it comes to tests and medications. The image of a physician as a diagnostician and prescriber is usually drawn from personal experience with doctor's offices and sickness. People could quickly identify that doctors study disease, provide treatments based on data, perform tests, and use other empirical means of staving off illness. Very few people realize, however, that the scientific aspects of

medicine experienced at the doctor's office are relatively new. The data driven tests and procedures that people living in modern civilizations are accustomed to are not only in their infancy but changing and adapting. The date of creation of modern medicine may be disputed, but empirically driven methods as we know them came around after the Industrial Revolution. According to Lee Goldmann, "almost all of modern medicine is based on discoveries made within the past 150 years, during which human life expectancy has more than doubled."[13] Moreover, these treatments and data have changed over time and, two physicians can make wildly different determinations about the same patient based on the same data. As Dr. Sadhu Panda says, "the half-life of truth in medicine is short."[21] While lab tests and treatments are still growing and changing, the idea of medicine as an art is at least as old as Hippocrates. It then seems odd for the older piece of medicine, medicine as an art, to not be so easily identified in a doctor's office. Where is the art in medicine? It surely is not the blood draws, treatments, drugs, and surgeries performed within the walls of a hospital, perhaps, the art of medicine is the physician's skill in delivering these methods.

Medicine is an applied science, meaning there is a set of knowledge that is obtained by medicine's practitioners that is then applied. The application, of course, involves the patient, who is the subject of the physician's career. The art of medicine cannot be found in the empirical aspects of a physician's job but in their interactions with patients. Perhaps the art of medicine is found somewhere in the web of subjective claims about disease, patient opinions, and even the physician's demeanor and character. Paracelsus, the 16th century Swiss physician noted the relationship between the physician's character and art: "Medicine is not merely a science but an art… the character

of the physician may act more powerfully on the patient than the drugs employed."[17] Training physicians in anatomy, physics, and pathology, although important, does not necessarily build character in a way that would reflect positively on a patient. There seems to be two separate sets of skills a physician can train: one set for the practical aspect of medicine, the scientific corpus of knowledge that must be learned, and a set of skills a physician builds that creates a positive character that helps them apply knowledge. This second set of skills includes listening, empathy, and an understanding of others. These aspects when combined create the art of medicine. For this thesis, the art of medicine is found in the interactions between patients and their physician. Simply put, the art of medicine is the delivery of treatment through human means: stories, empathy, and understanding. Once this view of the art of medicine is accepted, one can see that modern means of curing disease (surgery, anesthetics, and medications) are merely tools to be employed by the physician's art. Tools to meet an end. The end being the treatment of patients and the abatement of suffering. This thesis will also fight the trend of medicine in the Modern Era moving away from the human and toward the viral, bacterial, and pharmacological. Improved understanding of the art of medicine can be a first step in grounding modern medical techniques within the whole scope of human experience and expression. This is the art of medicine.

The practice of a physician's art covers the proper delivery of the means of curing disease and, therefore, is a critical aspect of the career. The art aspect of medicine has been ignored in the Modern Era being slowly replaced by the more empirical, scientific part of medicine which excludes a patient's subjective claims and experiences. Stanley Reiser, professor of humanities and physician, writes: "The patient's role as a narrator in

the drama of illness has declined in the twentieth century."[5] The focus of medicine has shifted from the patient to the empirical: graphs, tests, and charts. This change is made evident by a longitudinal study conducted on medical and pharmacy students. The study, conducted at Jefferson Medical College, used a JSE empathy test to score the empathy of over 400 students periodically throughout their education. The researchers found that the empathy scores and empathizing abilities of the students declined significantly starting the third year of medical school: "It is ironic that the erosion of empathy occurs during a time when the curriculum is shifting toward patient-care activities; this is when empathy is most essential."[15] Along with this decline of empathy comes a natural change in the goal of medicine: medicine will no longer use empiricism to an end but as an end of itself. Not only will physicians who lack training in the art of medicine have reduced empathy for their patients, they could also become worse diagnosticians.

The science of medicine is becoming greatly favored in healthcare. Perhaps physicians who are products of heavily science-based medical training will be more knowledgeable, but there is no doubt that these physicians will have lacked training in their art. The art of medicine is sacrificed at the expense of more knowledge.

The art of medicine and the scientific body of knowledge that physicians must be trained in are not mutually exclusive. As stated earlier, the art of medicine is the proper delivery of scientific knowledge to a patient. Therefore, the clinic setting is rife with opportunities to apply scientific knowledge through a physician's art and character. It can be seen then that part of the art of medicine is a patient's story. The history-taking portion of a clinical setting is one of the few opportunities that a physician may have to relate to, understand, and comfort their patient. The history of the patient is the patient's story.

There are main characters, protagonists, antagonists, and obstacles.[5] Although a patient's story may be non-linear and convoluted, perhaps lacking the correct medical terminology, they cannot be blamed. Physicians are equipped with the vocabulary to describe pathologies and disease. Patients are not. It is, therefore, the job of a physician and a critical part of their art to be able to tell and understand stories. If proper analytical skills are applied, the correct diagnosis can be found in a patient's story. If the story is ignored, conformational bias in diagnosis can become a dangerous goal of medicine. Once the patient's story is ignored and the means of diagnosis become an end to themselves, the art of medicine is lost. The delivery of the patient's view is no longer the focus, instead the diagnosis is the focus of physicians.[8] The patient becomes a vessel for diagnosis or can even be viewed as an impediment to diagnosis, a dangerous line to cross.

The desire to shift medicine away from subjective means of patient history taking towards apparently concrete diagnostic tests is due to the loss of art training during medical education and an accompanied decrease in clinical training. Anatomy, physiology, and test taking are all the primary focus of a medical education. Since most medical advances have occurred in the last 100 or so years, medical education has become more intense, inundated with courses and material. Stanford Medical School, for example, added 900 hours to their curriculum between 1945 and 1960.[11] The sole purpose of these courses was to keep up with the incredible advances being made in existing and new fields. 1965 was nearly 60 years ago. One can only imagine the medical advances made since then. New classes and increased course load have not only increased the demand on medical students but have been implemented at the expense of other types of training. Clinical training has been most infringed upon, being replaced by

lecture time to adequately cover all the new material. While some medical schools today are reeling back a 2-year classroom time to 1- or 1.5-years preclinical period, the effects of too little training with direct patient contact and interpersonal skills are still evident. In 1803, French physician Armand Trousseau gave a presentation to students about the balance between science education and clinical skills: “You must have sufficient notion of chemistry and physics to understand the application of sciences to medicine. But I should profoundly deplore the time that you might lose to acquire a more extended knowledge of chemistry… So, gentleman, let us have a little less science and a little more art.”[16] Even today the echoes of the lack of interpersonal skills training are felt. Surgeon and author Atul Gawande writes in the introduction of his book *Being Mortal*: “The way we saw it, and the way our professors saw it, the purpose of medical schooling was to teach how to save lives, not how to tend to their demise.”[12] While science courses like chemistry, biology, and physiology are, of course, crucial things for a physician to know in order to “save lives,” knowledge of these fields is not sufficient for treating a patient especially near the end of life. Physician Eric Cassell, author of *Talking with Patients* identified the elusive nature of art in medicine in relation to the science. He writes that the art of medicine through human connection is “incapable of describing and thus teaching about with the exactness possible when examining a biochemical event.”[5] Physicians have the ability of human interaction, conversation, and history taking to understand a patient’s life, desires, and story, which are all aspects of human connection that Cassell describes. How does one teach a student of medicine to understand human connection and a patient’s story and therefore become a better physician? Perhaps, there exists a rote list of questions medical students are taught to ask during the history taking

process. However, there also exists an art that focuses solely on storytelling: the art of theater. This would not be the first proposed attempt to use an art to teach medical students empathy or other personal skills. A group of researchers in Canada, in conjunction with McMaster School of Medicine and residency programs set out to incorporate an arts education in an attempt to improve medical students' ability to empathize. In the study, a group of students and residents were isolated as a control group and not given the art class while the other group, the intervention group, was taught the educational program *The Art of* Seeing. This program required the students to analyze works of art and write critically about them. The students were encouraged to practice "perspective taking" and "fantasy." These two terms were the researchers attempts to measure how well a student may adopt a patient's point of view and practice empathy. In the end, the research showed no statistically significant difference in the interpersonal abilities between the students, except for a slight increase in the intervention group's ability to explain the negative emotions of others.[30] Perhaps, *The Art of Seeing* program was not particularly effective. There is something to be said about the type of art used as an intervention to teach empathy. Observation of art and writing critically about art are two very personal and perhaps more self-centered methods to teach empathy. Both activities can be done in private. To teach empathy, and therefore improve the quality of patient interactions, a different art may need to be used. As opposed to observation of physical art and writing reflections, Theater may provide a means of studying the human connection that Cassell says is "incapable of describing." The art of theater can provide a more objective means as well as a set of vocabulary for teaching what the researchers in the Canadian study[30] called "perspective taking" and "fantasy."

Theater is a unique art in that it involves many aspects of other arts, perhaps ones included in the trials of the aforementioned study. When sitting in on a play one can see art in the set design, hear the art of literature from the script or the sound design, and have an emotional experience from viewing the performance art from the actors' technique. Since theater is so complex in the media it pulls from, it is worth narrowing the scope of theater's practicality in a healthcare setting for this thesis. While design related arts are important for a beautiful life and perhaps even for patient care, the aspect of theater that will be the subject of this thesis is that of the performance. The specific aspects of performance that will be addressed are the vocabulary of acting for telling a patient's story, improvisational skills, active listening techniques, playing 'action', and empathy cultivation through well-defined role playing. It is worth noting that all these techniques discussed are based in Western acting technique which shifts focus from the text of the play to the psychological interpretations of characters and natural human behavior. Although there are other techniques used in the performance arts, the Western approach's focus on understanding human behavior seems particularly relevant for medical practice and patient care.

Some theatrical tactics are already being used in medical education. For example, medical students are taught clinical skills using Standardized Patients. SPs are actors trained to exhibit symptoms of disease, while also "playing characters" that exhibit the full range of human emotions and social complexities, that medical students can then practice diagnosing. Medical students must then "perform" their diagnosis while the SP follows their own script for their assigned disease. Less specific terms like "role-playing" and "pretending" are used commonly within medical education to describe the work of a

medical student with an SP. While these terms are not incorrect descriptions of what is happening, there exists a more specific body of knowledge and terms within performance training that would enhance the education of physicians. Actors train in a very similar way to physicians with SPs. Actors practice scenes and dialogue with a partner. Everyone is “playing pretend” but there is a more specific set of vocabulary used to train actors to behave more realistically in scenes. This vocabulary is not used in a medical setting and should be employed for a more fruitful training of a medical student’s art. These techniques and exercises, already being used in medical training, can become more effective if made precise through the lens of acting technique.

Although theater is not explicitly present in modern medicine or medical training, the connection between theater and medicine is not new. In fact, theater and healing have been more closely related than scientific methods and healing. For the Greeks, who were the progenitors of early medical practices and writings, Apollo was an early god of healing. Asclepius, son of Apollo, soon replaced his father as a god of healing in the late fifth century B.C.[16] The temple of Asclepius at Epidaurus is one of particular interest. The temple was erected in the second millennium BCE but modified over time. By the sixth century BCE, the temple became dedicated to Asclepius. This was a place of healing, a place where sick people could interact with the gods.[7] The healing associated with the temple was based in spiritual and religious practices. However, healing at the temples began shifting towards a Hippocratic method as the Greek physician’s influence grew. Many Hippocratic physicians worked at these temples. Soon, the patients who could be cured with the new methods were taken care of at the temple while those deemed “helpless” were sent to the spiritual healers.[16] This system grew and turned the

temple at Epidaurus into an early hospital. The interest of Epidaurus to this thesis is not necessarily its use as an early hospital with multiple buildings. The interesting part of Epidaurus is that the campus included a theater. The healing wards were connected to the theater, which was a site of healing plays and later contemporary Greek tragedies. The Theater at Epidaurus was heralded for its "perfect construction" and acoustics. The construction was so excellent that it was believed the reason the Romans did not alter its design, as they had with many other Greek theaters, was due to its unrivaled architecture.[9] The theater was used as a vessel for religious, healing performances. Hippocratic methods, based more in scientific reasoning, pulled the practice of medicine away from spiritual, artistic fields and towards more objective pursuits.[16] Perhaps, the early Greek connection between theater and medicine accounts for early physicians' obsession with the "art of medicine." It seems as if the only way for early physicians to express their new-found career was through art. Any attempt to connect theater arts and performance to medicine, even as an aspect of training, would not be an invention, but instead a return to the roots of medicine, an attempt to get back to the art.

Physicians are equipped with the knowledge of empirical science and data-driven methods. These methods are intended to be a means to an end. The end being the treatment of a patient. As modern medicine moves towards a diagnosis-oriented approach, patients' stories can be lost. Not only are patients potentially ignored, but physicians neglect the part of their vocation that is more humane, the part of their training that is an art. Physicians today and spiritual healers of the past deliver care in different yet similar ways. Although physicians of today are armed with tests and pharmaceuticals, they still must empathize with and understand patients, which is a skill spiritual healers of

the past must have mastered. Performance training through theater arts is a way to inspire and teach future generations of physicians to care for, empathize with, and effectively learn the stories of their patients. Modern medicine is incredibly powerful and may only continue to grow in its ability to cure disease. However, a physician's ability to utilize their humanity in patient interactions should not be sacrificed because of medical advances in education. As the corpus of medical knowledge grows, the practice of the art of medicine must not shrink in response. Instead, theater, when employed as a training method, will help bring physicians equipped with modern medical techniques back to Epidaurus and back to a more human experience in medicine.

CHAPTER TWO

A Need for Theater Training

Generally speaking, the modern view of art education is that learning art is only for the sake of learning the artistic skill. For example, a painter's only benefit from learning how to paint is to become a better painter. We have become incredibly short sited in education when it comes to the application of artistic skills. The marketability of arts has, for some time, distracted from their benefits. Someone who is recognized as a good painter is thought of as someone who can create things on canvas no one else can. That same painter in their pursuit of becoming a skilled artist has simultaneously trained skills in color recognition, awareness, critical thinking, and coachability from years practicing an art. These are skills that transcend the task of painting. In the same way, theater training is seen as simply a means to an end. The current assumption is that someone who trains in acting is going to be in movies one day. Beside the fact that only a small percentage of people who have received degrees in theater or have attempted to act have become successful in major films, there is perhaps another reason to train in theater.

An actor learns skills like that of the painter. While learning how to perform well, an actor trains skills that very few other disciplines train. Actors learn practical skills like memorization techniques and teamwork. Actors also learn more nuanced skills like empathy, confidence, social awareness, and storytelling. Through practice and studying performance, actors gain an insight into human behavior. Actors can look at situations and ask, "How did this person get here?" or "What were the previous actions that brought

this person to their current state?" Not only do actors have the wherewithal to ask these questions, but they are also able to answer them through the reading of subtext. Actors are taught that characters in scripts may not always mean exactly what they say or they say one thing to elicit a seemingly opposite reaction. These skills are also identical to those required from a physician. Patients use subtext and sometimes confusing stories to describe their feelings and experience with disease. In addition to leaving out important information, a patient may also exclude personal information from a physician because they have deemed it embarrassing or shameful. A physician who can read subtext and navigate the unspoken hints left by patients would be more equipped to analyze these situations. These skills and many others are by-products of an education in performance and theater arts. Whether or not a student's goal is to become an actor, these traits can be honed and mastered. It is not the goal of being an actor that grants a student these skills but instead the continued training in theater. It seems then that physicians could benefit from a theater education even if it is not a career goal but a method of training the art of medicine.

Let us first examine the practical skills that theater teaches that would be beneficial in a healthcare setting. The most obvious skill is that of teamwork. It is hard to replicate the controlled chaos that is a healthcare clinic. Whether it is an emergency room in a major city or a rural family medicine clinic, there is always some stress and urgency in the job of healthcare. When it comes to a person's health, the stakes are always high. To provide care, physicians must work with a team of countless other professionals. Besides the obvious team members like nurses and physician assistants, there are also technicians, front desk workers, administrators, pharmacy representatives, dietitians,

physical therapists, social workers, and many more that could be key parts to providing care to a patient. It would be difficult to find another career in which a single professional encounters such a diverse group of other professionals in a workday.

In a similar way, training in theater cultivates teamwork. On a large scale, working to produce a show requires collaboration of many professionals. Whether it is a large musical on Broadway, or a skit performed at a church for kids, actors must work with directors, administrators, producers, designers, and audiences to have a successful production. Although the interactions in producing a show may be lower stakes than some interactions in a hospital setting, the principals of working with other people remain the same.

Arguably, the most difficult aspect of working with a team is knowing when to lead and when to follow. Theater education teaches this skill in a particularly unique way, especially as performers. In theater, there is a time to lead and a time to follow, just like in a medical setting, except in theater actors are told when it is their time to lead through lines. Lines and dialogue usually prescribe moments where it is time for one person to lead the story and others to listen or follow. Although the actual rehearsal process may not be practical for physicians in-training or pre-medical students, the idea of theater being an orchestra of voices and not a solo still stands. To put this concept in the realm of patient interactions, imagine a physician speaking with a patient during a visit. A physician who believes they are the star of the show will miss information from the patient, their co-star. Physicians are keen to "jump" the patient's lines in favor of their own voice. Performance training highlights the benefits of listening as much if not more

than the importance of speaking. As the famous actor's quote goes: "All acting is reacting." If you are not listening, you cannot react. The patient is the one with the story.

These ideas seem simple, but tactics to train leadership and teamwork are usually ignored in a collegiate environment. The skills of listening and humility are especially ignored in pre-medical training which focuses heavily on STEM courses. STEM majors like Biology or Chemistry are incredibly popular for pre-medical students. AAMC, the application portal for most MD schools in the US, reported that 80% of matriculants into medical school graduated with a degree in a STEM field.[1] These majors are typically isolating and do not focus on teamwork, but rather individual performance on exams. The organization AAMC published a document in 2020 titled "The Fundamental Role of the Arts and Humanities in Medical Education."[26] This document argues that arts improve patient care and even the mental health of the physicians themselves. Exposing undergraduates to a different type of education, an education in the arts, may limit the isolationism of STEM majors and allow students to expand their teamwork skills in a unique environment. While Shakespeare was right that all the world is a stage and all the people in it are players, Shakespeare never prescribed a main character.

Besides leadership and teamwork skills, theater teaches a more unique skill. A skill that is especially useful to physicians. Theater teaches empathy. Acting is the art of walking in someone else's shoes. There is no better way to understand another human than to pretend to be them through a serious, artistic study in theater. Theater is a playground for pretending to be other people. While it may be a bit out of the comfort zone for STEM-leaning students, theater can be a safe place to act as other people within the realm of a script. Constantine Stanislavski, the father of modern acting, writes about

playing as other people in his book *Building a Character*: “I was happy because I had realized how to live another person’s life, what it meant to immerse myself in characterization… this is the most important asset for an actor.”[29] Stepping into other people’s situations in an imaginary environment to practice emotional awareness is an invaluable technique for physicians to practice. Especially because the world of plays can so closely mimic the fast-paced world of seeing patients.

In the discussion of practicing emotional awareness there are two terms that are incorrectly used interchangeably: empathy and sympathy. The distinction between these two terms is important. Sympathy is the human ability to understand another person’s emotion based on our own understanding of that emotion. The word itself comes from Greek meaning “together feeling.”[23] For example, after a person loses a family member, a doctor may be able to recognize that person’s sadness because the physician has felt sad before. Empathy is more specific. In the same example, the physician would have a deeper understanding of the person’s loss because the doctor has lost a family member and knows what that is like. The doctor that empathizes understands emotions from personal experience not just based on their experience with the general realm of human emotion.

It may seem impossible for a physician to empathize with everyone. Not every physician has lost a family member to cancer, so how could it be possible to give cancer patients excellent care? This is where theater can provide an experience for physicians. Theater has a cathartic nature that draws in the viewer and practitioner to experience something outside of their own life. Theater is particularly good at this because theater would provide an environment for a physician to perform a scene or read a script about a

cancer patient. This experience through theater is arguably as close as a person can get to a personal experience without having it in their own lives.

This kind of stepping into someone's shoes, roleplaying exercise is already being used in healthcare training and medical school. In doctoring courses, students take turns "acting as" a patient with certain characteristics and life experiences, while the other student must play the role of the physician. Furthermore, actors are used in Standardized Patient programs to perform rehearsed pathologies that medical students must diagnose. Medical schools are not the only professional school to use these role-playing tactics. Dental, nursing, and physician assistant students all utilize some form of pretend play like theater to practice for a patient encounter.

Theater education and its application in medical school classrooms can refine this training, making it more specific and helpful to everyone involved. Although theater is not a science, there are large, extensive bodies of work about theater and acting that elaborate on current skills taught in clinical skills courses. However, some of the more modern acting concepts would be more helpful in a medical setting.

The first acting concept that can be taught to medical students to enhance role playing education and patient interaction is the concept of "action." As the father of modern acting, Constantin Stanislavski said, "all acting is action."[25] Actions are the motives actors use to influence other character's emotions and opinions. Actors are also taught to use concise actions to overcome the obstacle in a scene. An example from a play may be helpful. In Act 3, scene 5 of *Romeo and Juliet*, Romeo must leave the Capulet house, since he has stayed with Juliet which, if he was caught, would lead to his death.[22] During this scene both characters play different actions to reach their goal.

Juliet's goal is to have Romeo stay longer. To achieve this goal, Juliet claims that the bird they hear is a nightingale, a bird of night, and not a lark, a bird that signals the morning. An actor playing Juliet could deliver these lines playing a few different actions. The actor could play the action "to seduce" or, an opposite action but also valid, "to sadden." Either of these actions would lead to a different type of scene, but both actions seem like valid approaches to the plot. A Juliet who seduces Romeo would be equally effective at making him stay as a Juliet that saddened Romeo to make him pity her. These emotional gymnastics that actors rehearse are helpful for analyzing and practicing human interactions. Actors, through this practice, can explain or adjust human emotion and behavior. Not only does acting training hone action skill for understanding others' behavior, but actors also become more introspective. Understanding human behavior through action makes the individual more aware of what actions they use in everyday life. An awareness of one's strengths and, perhaps, faults is a virtue for working in any team setting but especially in healthcare.

Acting not only teaches individuals how to use language more effectively through action, but it also teaches empathy. As stated earlier, acting can be viewed as an approach to others' lives by literally "stepping into their shoes." Theater provides a safe, educational environment for observing and displaying behavior. Revisiting the provided example about the cancer patient, a medical student may not understand what it is like to lose a family member to cancer because that student has never experienced that in their own life. Theater provides an experience that allows a student to observe a story about loss or play a character that has lost someone. By becoming a character in an educational

setting, the medical student will more strongly empathize with the background of the patient since the student must now behave like someone they do not know.

Some would argue that training doctors in theater would not only be ineffective but perhaps harmful to patients. The most common rebuttal is that physicians who are taught to act will be insincere with patients because they are just behaving as the character they think fits the patient's needs. This is a reasonable concern. Actors are not, in fact, the characters they rehearse or play on stage. So, there does seem to be some level of insincerity in performance. There is, however, an important difference between performing in a play and using theater training with a patient. That difference arises from the "given circumstances." Given circumstances are the set of situations and facts that surround a plot or an individual performance. To repeat an example, in *Romeo and Juliet*, some of the given circumstances for the two lovers are the facts that they live in Verona, have two rivaling families, are in love, and could be punished if caught. There are also given circumstances in a hospital setting. Each patient arrives to see a physician with a set of given circumstances. These circumstances can be directly related to their chief complaint, or they could just be facts of the patient's life. Unlike in a play, the given circumstances in clinics are, in fact, real. The reality of circumstances present in a medical setting are what sets performance apart from just the utilization of acting technique. Actors must perform realistically under imaginary circumstances, but physicians must perform realistically under realistic circumstances. The difference between circumstances may seem small, but it is a factor in determining the sincerity of a physician. Besides the differences in circumstance, this thesis is not attempting to force

physicians to “act” a character. The goal is, instead, to use acting technique to better listen, analyze, and react to patient needs.

Although it may seem that theater training would create insincere physicians, they would instead be trained to use and refine the already innately human ability to empathize. Theater training would give a specific vocabulary of action and given circumstances to role playing activities already used in medical education and Standardized Patient interaction. This extra training in performance would specify and improve medical education and grant physicians new ways to approach patients.

CHAPTER THREE

Practical Applications and Performance

Applying beneficial performance techniques to medical education may not involve specific “theater classes,” but rather a streamlining of the current techniques used to teach medical students “doctoring.” Current medical education in the United States involves classroom work as well as clinical skills courses (sometimes referred to as “doctoring” courses) up through the first year-and-a-half, sometimes two years. The strictly classroom work in medical education, as mentioned in the first chapter, teaches the science of medicine, and will not be discussed here. The “doctoring” courses where clinical skills and physical examinations are learned are of more relevance to a performance education, since it is in these courses that students can practice the delivery of medical knowledge, their art. These courses also mirror acting and performance as outlined in this thesis. Acting teaches its performers to use a set of skills to reach certain goals on stage. These goals can be emotional, a character wants another character to feel a certain feeling, or they can be physical, a character wants something from another character. In a similar way, physicians, in a doctoring course, are taught skills to achieve a series of goals. Physicians use these skills and if they are unsuccessful, they then adapt these tactics with their “acting partner,” the patient. This duet between doctor and patient can, interestingly, result in the comic or tragic endings seen in the theater.

The streamlining should begin in the part of medical education already utilizing acting technique, and sometimes actors: clinical skills labs. Clinical skills education

usually involves hands-on training with peers, teachers, and most often Standardized Patients. SPs are paid workers or volunteers who are trained to present, or act out, some sort of pathology that medical students must examine and diagnose. According to Johns Hopkins School of Medicine website: "Standardized patient simulation involves the use of individuals trained to portray the roles of patients, family members, or others to allow students to practice physical exam skills, history taking skills, communication skills and other exercises."[19] The use of Standardized Patients has become ubiquitous in medical education, probably for its positive impact on the field. Students trained with SPs were found to have increased retention of clinical observation skills, scored higher in evaluations, and claimed the experience was realistic.[10] To practice with a SP, medical students run through their graded skills while dealing with a real person who brings their own unique background to the pathology being studied. The similarities to theater are apparent. The student is expected to work with a prescribed set of information in their graded physical exam, like a script, while also managing the unexpected aspects of patient care that come with dealing with a real-life person. The handling of patient opinions and medical "curve balls" is like improvisational skills actors have and practice. Not only are the skills used in SP encounters like skills practiced in theater, but the SP is sometimes described as an actor. In fact, actors typically use SP programs as day jobs. It seems the only participant not taught directly to use acting technique in educational clinical medicine is the student doctor.

There are two facets of performance that could be most easily incorporated into medical education: playing action and reacting. These two tools are basics for any experienced actor. Playing action is the tool actors use to change the emotional states of

others, which is a valuable skill for physicians. Reacting, on the other hand, incorporates an actor's ability to listen and respond realistically to their partner's actions. Listening and reacting to others in performance is so important that a famous quote attributed to Stella Adler circulates the theater community which is that "all acting is reacting."[2] The practice of clinical medicine in its own way is a reaction to the signs, symptoms, and story of a patient. All medicine is reacting.

The concept of playing action is present in modern acting methods which is more heavily based on emotional states and psychology. The emotional acting of today's film and theater exists in stark contrast to the methods used in Shakespeare's time, for example. When acting a Shakespearean piece there was no concept of "feeling the part," instead the actor leaned on the verse and the poetry of the writing to dictate their decisions on stage. Modern plays have moved away from poetic speech and focus more on psychological approaches to acting and plays themselves. Modern playwriting was born through the likes of Ibsen and Chekhov who both lived around the same time as the advent of modern psychology. Their work in playwriting, which defines the modern era, was heavily influenced by the emergence of the psychological field. Due to this transition in playwriting, acting has also shifted to being a more psychological analysis of human motivations, sins, and desires. Because of this, actors now have a vocabulary for describing and interacting with the human psyche. Action is one of many pillars of good acting technique, but it is the most important for a physician because action describes how people influence other's emotional state and achieve their goals on stage and, hopefully, in a clinic setting.

Although modern acting utilizes these emotional techniques, including action, the first mention of action as a facet of drama comes from Aristotle in his *Poetics*. In section 6, Aristotle describes action and makes the argument that a plot cannot constitute a tragedy without action:

> Again, Tragedy is the imitation of an action; and an action implies personal agents, who necessarily possess certain distinctive qualities both of character and thought, for it is by these that we qualify actions themselves, and these—thought and character—are the two natural causes from which actions spring, and on actions again all success or failure depends. Hence, the Plot is the imitation of the action: for by plot I here mean the arrangement of the incidents. By Character I mean that in virtue of which we ascribe certain qualities to the agents. Thought is required wherever a statement is proved, or, it may be, a general truth enunciated. For Tragedy is an imitation, not of men, but of an action and of life, and life consists in action, and its end is a mode of action, not a quality. Now character determines men's qualities, but it is by their actions that they are happy or the reverse.[3]

Action in the modern performance age, as mentioned earlier, has been colored with psychological concepts. However, the echoes of Aristotle's thoughts are still heard. Action on stage is, indeed, an imitation of real life since humans work through action. The text that will provide a more modern insight into how action can be used in a medical context is Stanislavski's *An Actor Prepares*.[24] Through this text, a more accessible and practical definition of an action can be made for use in a clinical setting.

Stanislavski describes action as decisions an actor makes that are "logical, coherent and real" and have "an inner justification."[24] These decisions are intended to illicit a response in the play world around the actor. This response is intended to be emotional, an emotional change in your acting partner, and as applicable to medicine, an emotional change in the patient. This emotional change in a patient is not the only goal of action. Action can also be used to obtain physical goals, like eliciting a certain response from a patient or uncovering the true reason for a patient's inattentiveness to a medication

regiment, for example. Action is not as Stanislavski says, “immediately for arousing a feeling in oneself for its own sake.”[24] Instead of being self-serving, action is meant to comfort, inspire, or alter other people.

An example would be helpful in expressing the difference between feeling for feeling sake and eliciting change in someone else. An actor that is playing a role in which he or she has lost a loved one has two options in performing the scene in which they lose their mother, for example. The actor could feel for feelings sake and come out onstage crying and wailing and expressing the actor’s version of what it means to be sad. This approach is called “playing emotion” and is equivalent to a farse. This approach to the role is hardly believable, and any audience could see through the fake interpretation of sadness and conclude that the actor was bad or poorly trained, because they were “faking it.” On the other hand, the same actor could decide to make their response to their mother’s death actionable and not just for feeling’s sake. The actor could go into a scene with their brother and have the action of “making their brother feel guilty for their mother’s death in order to make him apologize or feel responsible.” This is a much more interesting interpretation of the script because the actor is engaging real human interaction and emotional stakes rather than crying to show the audience that they are sad. When the actor uses action, they are engaging another human by attempting to alter their emotional state and in this case make them “feel guilt.” This guilt in the other person can then spur a physical response in the world. Perhaps, the brother will then feel responsible for the mother’s death and pay for the funeral expenses or quit smoking because he now realizes that’s what his mother would have wanted. Outside of this play example, it is easy to see that almost all real human interactions are action and not just useless

emotional expressions. Humans also use these actions to demand a real-world response in others. Humans feel anger, of course, but anger is usually directed at someone or something. Humans become angry to change their circumstances or the opinion of the person that made them angry. In fact, action is one of the oldest human instincts. Babies cry not to just experience what it is like to feel sad, but to change the world around them. They cry to make their mother feel pity, responsibility, or guilt in an attempt to be fed, comforted, or cared for. Humans emote and speak to change the world around them. Humans, outside of plays, use action. The physician should be aware that they are already using action with their patients and seek to master it for the benefit of their art.

Physicians, in the same way, speak to change the world around them. The world of the physicians can be confined to a clinical space for the purpose of this thesis. In the clinic, patients express certain emotions to affect the emotional state of the physician and vice versa. The actionable power of the physician's words can be practiced through performance technique and in acting itself. While interviewing a physician during my research for this thesis, I posed the idea of action to her. She explained that at least half her job was changing people's emotional state. However, she did not say emotional state, instead she said, "it sounds rude but the only word I can think of is 'manipulate'." This physician, not trained in performance technique felt the echoes of the use of action in her job. Although 'manipulation' has negative connotations, it is not far from expressing the truth of what actors do. Since what is manipulation except changing someone's emotional state for your own ends? Action is manipulation without the self-serving component. The interviewed doctor is apparently not alone in her feelings about how she communicates with patients. Cassell, who collected thousands of recorded hours of patient visits,

teaches the art of human connection to other practitioners, which includes communicating effectively. Many of the physicians he taught felt the same way the interviewed doctor had: "when I teach materials in this book to experienced practitioners, they frequently tell me that they already do many of the things that I describe, but they have never known why."[5]

Half of the battle of training a physician in the concept of action is making them aware of its existence. The vocabulary for acting itself would be beneficial for physician training. However, there are ways to practice action once a student is aware of the concept. A few methods can be applied to SP interactions while other methods are best used in group discussion.

To practice action, a medical student should be able to vocalize the actions they are "playing" when with a patient. For example, after a particularly difficult interaction with a patient that had an unfortunate diagnosis, the student should be asked what actions they sought to use in the room with the patient. While there exist many correct answers to this question, there are a few incorrect options. The students should not answer with the following: "I felt sad for the patient." As discussed earlier, the feeling of an emotion is not action, it does not affect the emotional state of others. The student has merely expressed a feeling and not a tactic meant to assist their patient. Correct answers would be any actionable sentence that was appropriate for the situation in question. For example, the patient that answered correctly and understood action would say, "I tried to inspire the patient and make them feel confident to take control of their regiment of prescription drugs." This more active approach to patient care and interaction will benefit the patient and the physician.

The structure of describing active choices follows a subject, verb, object pattern to avoid non-active statements that just express personal feeling. The verb itself is the part of the sentence that colors the interaction between the doctor and the patient. Therefore, it is incredibly important to make medical students aware of the breadth of their emotional capabilities. There are some common actions doctors may play like “to comfort” or “to uplift,” but these do not fully embody the range of tactics physicians have at their disposal to deliver their art. A book written by Marina Caldarone called *Actions: An Actor’s Thesaurus*[4] contains a wide variety of action words organized alphabetically and by emotional group. This text has been incredibly helpful for actors to describe decisions they will make on stage. It will also be useful for health care providers to bolster their vocabulary when analyzing and discussing approaches to patient interactions.

Beyond analyzing interactions in writing or aloud with action vocabulary, there are more active ways to practice action between students. Effective practice would involve two students in a “scene” where they practice playing assigned actions in different circumstances. Start by placing the students in a common life situation, unrelated to a patient or medical interaction. The example provided on the acting website “Backstage” is helpful and concise. Examples like the one they provide can be modified for the group being taught. The important part of this exercise is that the dialogue is simple, repeatable, memorable, and actionable. In the “Backstage” example written by actress Elizabeth McGowan the students are playing roommates:

> For an example of actioning, imagine a scene in which your character offers their roommate a glass of water—that is the literal action of the moment. Let’s say the subtext of the scene is that your character has fallen in love with their roommate, and their *objective* is to get them to notice. During your early preparation, your marked-up script may look like this (*actioning in italics*):

> You: Would you like a glass of water? (*entice*)
> Roommate: No, thanks.
> You: Are you sure? You look hot. (*pursue*)

> Of course, the verbs you choose depend not only on the subtext of the scene, but also the context. Imagine the same scenario, but your character's roommate has a nasty temper:

> You: Would you like a glass of water? (*pacify*)
> Roommate: No, thanks.
> You: Are you sure? You look hot. (*test*)[18]

While this example may be silly, it's use for illuminating performative aspects of professional and social interaction is critical. Different meanings can be gleaned from the dialogue when it is read with the different actions associated with the line in parentheses. The practice of reading lines with different actions is the training of an actor. This same training can be used to provide physicians with a similar skill set. Students should practice these readings and notice the different tactics they may use to express the assigned action. A person trying to entice another person may place a hand on their partner's shoulder, use softer vocal tones, or have a more relaxed posture. On the other hand, a person trying to intimidate their roommate in the scene may stand up straighter, push out their chest, point a finger, or use deeper vocal qualities. These are all innate tactics humans possess to express action and interact with others.

The description and application of action may seem obvious. It should be. People use action without knowing to interact with each other every day. Humans do not go a day without using action to change the world around them. It is the ubiquitous nature of action in human interaction that makes it of critical importance for physicians to learn. Since humans use it, doctors should be aware of it. It is the job of the physician to study, analyze, and then use these tactics for the treatment and navigation of patient needs. It seems critical that mastery or at least competency in human interaction and behavior is

foundational for physicians to deliver the medical care. The art of medicine is the delivery of the science, and the science seems to be delivered, at least in part, through action.

The second acting technique that can be taught to physicians to practice their art and clarify patient interactions is the art of reaction. Reacting or listening is an important part of acting and being a good physician. While action mostly covers the tactics physicians can use to speak to patients and change their emotional state, reacting covers the other half of a patient visit: listening. Physicians who learn to listen well are able to respond to their patients at the appropriate time, with the correct information, and with the right attitude and tone. This is reacting.

The patient's history is the most critical part of understanding the story of a patient and their disease. Although it is the most important it may not be the easiest to decipher. Patients describe symptoms in ways that medical school may not be able to teach. The average patient coming to a clinic will not know or even understand the pathology of their condition, hence the reason for their arrival at the clinic. Patients describe their symptoms with story, which is the way humans communicate most of our experiences. These stories are complicated and rarely objective. As Cassell remarks, "it is virtually impossible for a patient to report a symptom as an objective fact, as would a talking computer."[5] Histories are delivered in subjective ways and patients rarely include the medical terminology with which doctors so often operate.

An excellent listener is required for understanding the development of a patient history through story. There are a few practical skills that separate a good listener from a bad one. These skills would be improved with acting training but sometimes a good

listener is just a person who is being attentive. Physicians should ask open ended questions that don't presuppose a diagnosis. The physician should also avoid interrupting the patient and understand that patient's sometimes do not tell stories linearly. This idea reflects the obvious in theater which is that in a performance each actor has a time to speak when their line is written. Physicians and patients have dialogue and although it is not prewritten like a play, there are still times where the patient should speak and the physician should listen. Improvisational theater, a subset of performance art, trains this very concept. Although there is never a script, performers in improv use action and listening skills to seamlessly communicate with one another.

The easiest way to practice listening is to do just that: listen. Before expecting a student to listen to a patient's needs, they should first practice the basics by listening to a story. It would be beneficial to have paired-off students take turns telling each other a one-minute-long story. One student speaks about anything of their choosing for a minute while the other student simply listens, nothing else. After the minute is over, the listener should retell the information to the best of their memory. Actors practice similar skills to focus on the pertinent pieces of information their partner may be giving them in a scene. An actor does not want to miss valuable information so that they are honest to the story that was written in the play. A physician should remember valuable information so as to not miss a diagnosis.

Perhaps listening skills, much like the skill of playing action, are obvious and seem facile to practice. However, this judgement may only come from those who believe theater is only about emotion. Outside of performance art, communication skills are

generally thought of as improvable through practice. Theater simply provides the foundation for practicing communication through plot, characters, and objectives.

Theater, regarding its application in medical training, is merely one proposed methodology to train the unquantifiable art of medicine. Physicians must dissect the human body and learn countless details of pathologies. It does not seem out of the question that practical techniques should be considered to improve delivery of the knowledge gleaned from such dissections. The art of theater is one of perhaps many approaches. However, theater's description of action, which is ubiquitous in all human interactions, is particularly unique in its potential to improve physician's skills.

CHAPTER FOUR

Conclusions and Types of Evidence

A focus on the art of medicine has been pushed to the side in favor of scientific discoveries and research in the Modern Era. The shift in focus has not been caused by a lack of care among medical professionals or a disdain for the humanity of patients. Instead, the shift has happened much more naturally because of the objectivity of medical research. Disease and diagnosis have plagued humanity forever, but within the last five hundred years humans have begun to fight back. The fight has been mostly procedural: find a culprit for the pathology and match the appropriate treatment plan to the patient. This is not always an easy task, but in its best form it is objective. Disease and treatments can be measured in different facets, while the humanity of the physician and the patient cannot. The tendency of modern medical education to favor the science of medicine has arisen from an inability to quantify, identify, and practice the art of medicine, rather than a disdain for the art itself. The trend to favor science was easily followed throughout history. Science is black and white. There is usually a provable, objective, and correct answer that can be applied to a patient. On the other hand, the art of medicine is not as tangible and harder to work with. Science has been favored because it has been the path of least resistance for the last few hundred years.

The hope of this document is to provide a route for the identification and practice of the art of medicine. Regardless of the reason for the loss of education of a physician's art, the goal of future medical education should aim to place the art of medicine in equal

footing with advanced scientific approaches. Physicians today are equipped with all the scientific knowledge and equipment that has been discovered throughout human history, but they have not been provided with the means to practice interpersonal patient skills, the training has been absent.

These skills are incredibly important to practice, whether it is through theater or some other method. Either way, there is no debating that the science of medicine has limits. Medical science cannot cure death. When patients are met with the last diagnosis or the last medication that did not work, what can a provider do? There is nothing a medication or treatment can do, but it does seem that the physician still has a duty to these patients. Besides, there is a whole branch of medicine, palliative care, that focuses on providing care when death is imminent.[6] While these physicians can still provide medications that reduce pain, they seem to have a different primary function. Perhaps a palliative care doctor acts as a voice of reason, a helping hand, a shoulder to cry on, or just a person with whom to talk. All physicians can practice and use these skills whether in high stakes interactions where death is a possibility or in a low stake, clinical setting. Either way, a physician's practice will benefit because the delivery of their care will improve.

It may be hard or impossible to measure the actual effects of a theater education on a practitioner. Research like this thesis may also investigate the effects of religious practices and beliefs on physicians and their patients. The effects of theater training like religious or spiritual practices may have immeasurable benefits. As shown with a few studies, there are complexities in measuring how well someone listens or how nice the patient thinks they are. These values are incredibly subjective. A study[28] performed for

the *Healthcare* journal in 2017 showed statistically significant increases in fourth year medical students' abilities to speak to patients after learning Stanislavski acting technique, including increases in interdisciplinary learning, clinical team performance, and improved empathy skills. These studies make use of poorly established measures of empathy that are also subjective and based on Standardized Patient responses and participation. On the other hand, this thesis has made use of many pieces of anecdotal evidence for the art of medicine, which opponents may say decreases the reliability for the efficacy of theater arts intervention in medical education. The next steps would, of course, be to have an interventional study performed on a group of healthcare practitioners or medical students. This study would replicate the one performed in Canada or in *Healthcare*, except the intervention group would be taught with the techniques outlined in this thesis. In the meantime, anecdotal evidence should be given more value in this realm of medicine. Scientists use quantitative evidence to describe measurable events in a clinical study or lab. Quantitative data pairs well with subjects that can be massed, timed, or measured. Anecdotal evidence and stories pair well with the art of medicine, which itself seems to rely on stories and feelings. Arguably, the science of medicine has been a constellation of all the stories of medical history put together. Without the stories of medicine there is no science. Perhaps, the science of medicine when paired with patient experience is the art of medicine.

A pediatrician who was interviewed for this thesis spoke about a time she experienced the art of medicine when faced with a difficult decision. While in her residency, this physician was put in charge of a newborn infant who had several birth defects which would lead to the infant's death. The child would not be given a chance to

leave the hospital. According to the pediatrician, the mother was understandably distraught. There was no medication that could be given or test that could be run. The child was going to die. The science of medicine had met its limit. The mother asked the pediatrician to hold her baby because she could not watch her child die. That was what the patient wanted. The pediatrician said that she held the child as they passed away: "which book did I learn that in?" Many, if not all physicians, have stories like this one. There was nothing measurable or objective about the pediatrician's approach to this situation. As she said, through her rhetorical question in the interview, there was no book in medical school that taught her the appropriate response to that situation. The author Atul Gawande presents a similar experience when describing his most memorable aspects of his career: "I never expected that among the most meaningful experiences I'd have as a doctor- and really, as a human being- would come from helping others deal with what medicine cannot."[12]

Dr. Eric Cassell in his book *Talking with Patients* also grapples with the subjective nature of the teaching of clinical interactions with patients. Dr. Cassell arrives at a similar conclusion at the end of his introduction to his second volume. He believes examples and subjectivity are key in teaching clinical medicine: "I believe there is no other equally effective or realistic manner to approach the study and teaching of communication between doctor and patient in the clinical setting than the use of examples."[5] Although Dr. Cassell arrives at a similar conclusion regarding the importance of subjective evidence as this thesis, he goes further without addressing the possibility of arts education as a means for teaching the art of medicine: "the recitation of

cases, telling stories, has been a method of teaching aspects of clinical medicine that has survived through the ages because nothing does the job as well."[5]

The point that Dr. Cassell does not elaborate on is "the telling of stories." Theater is the art of telling stories that Cassell does not name but defines. The art of telling stories is critical for the understanding of patient lives, personalities, and their health. A simple introduction to performance training and theater deserves further investigation as a means for teaching medical students which would perhaps result in theater's incorporation into medical education. As shown, the addition of theater training into medicine would not differ widely from the current tactics used in clinical medicine. Theater would simply specify and provide further elaboration on the preexisting methods of training physicians, while also providing physicians a new range of vocabulary and skill with which to diagnose and treat patients.

Physicians must be brought back to the art of medicine. With theater, physicians can understand the stories of their patients, interact with those stories, and provide treatment in conjunction to their patient's story. Disease is not just pathogens and medication. Disease is the result of how suffering and these pathogens manifest themselves in a human body. Medicine, then, is not simply the study of pathogens and medications, but the study of the whole constellation of human experience and stories in relation to medical science. Therefore, the distinction between clinical medicine and bench research is the art of understanding humanity and its expression and relationship to disease. This is the art of medicine. When the science of medicine reaches its limit, the art of medicine must prevail.

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