PERFORMANCE BASED MEDICAL CARE: THE INTERSECTION BETWEEN PERFORMANCE BASED THEATRE AND THE MEDICAL PROFESSION

AN HONORS THESIS

SUBMITTED ON THE FIFTH DAY OF MAY 2023

IN PARTIAL FILFILLMENT OF THE REQUIREMENTS

OF THE HONORS PROGRAM

OF NEWCOMB-TULANE COLLEGE

TULANE UNIVERSITY

FOR THE DEGREE OF

BACHELOR OF ARTS

WITH HONORS IN THEATRE

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Scott Hawkins: Performance Based Medical Care: The Intersection Between Performance Based Theatre and the Medical Profession

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The medical profession involves various aspects of performance, from face-to-face interactions with patients to procedure-based work. This raises questions about the role of theatrical preparation and education in the medical field in terms of communication and performance. Effective communication in healthcare is critical, as research suggests that ineffective communication in healthcare is one of the leading causes of medical errors and patient harm. The use of theatrical education may increase the communication skills of aspiring doctors, preparing them for the complex and demanding role of a medical professional. Another aspect of the medical profession is performance, with research showing that theatrical education can increase performative skills of medical professionals. Increasing performative skills sin medical professionals in terms of improvisation and presentation skills have been proven to provide better patient care. Studies indicate that traditional medical education does not provide all the necessary skills to become a competent doctor, and performance-based training can fill this gap. Therefore, new methods of teaching, such as theatrical education, can help the medical profession advance and decrease the gap between doctors and patients. The use of theatrical education may also increase the accessibility of becoming a doctor for those who do not learn by typical methods. Further research into the effectiveness of theatrical education in medical school is called for to enhance the training of aspiring doctors and prepare them for the complex and demanding role of a medical professional. By exploring new ideas and introducing innovative methods of teaching, the medical profession can continue to advance and improve the delivery of healthcare.

Introduction:

The medical field has become a major focus of the public due to recent events concerning the health of the nation and the world. Hospitals and doctors were put to the test as a pandemic swept across the nation, putting burdens on a system that was not meant to handle such a volume of patients. Combined with this strain is the fact that the medical system in place today has a doctor shortage leading to schedules being filled and many people unable to access the care that they need. These strains motivated many people to analyze the system that is currently dominating the healthcare system and if there were any methods to increasing its efficiency and patient care. When researching how to effectively increase the ability of the medical system to treat society's ailments, one may find that tracing medical practice to its educational root is an important step in becoming a doctor that could be improved. Medical education is a crucial focal point of becoming a doctor, with the acceptance into medical school being very selective and the majority of those who get into medical school going on to become doctors according to AAMC data [59]. Therefore, a complete understanding of medical education can lead to a better understanding of how to improve medical care in today's society.

When exploring the medical education system that gives society the medical professionals that treat them, it is important to first understand the historic context of medical education to better understand how the schools that teach doctors evolved to how they are now. While it may be interesting to understand the ancient context of medical education and its roots in ancient Greek culture or Medieval practices, the main focus of medical education that is most relevant to the discussion being presented concerns medical education as it has developed in America. To discuss this history of medical schools in America, a review of medical history

given by Dr. Fulton titled “History of Medical Education″ gives a description of many of the important developments that occurred throughout American history. This historical review details how the American medical schools that are known throughout all of the country today did not exist as America was first founded, rather the American system was based on an apprentice system that had been brought from England [60]. However, there were many shortcomings to this system, so the first medical school was created in Philadelphia for the purpose of “the creation of a professorship in the theory and practice of medicine [60].” Even with this education, there was no licensing procedure for medical professionals to become official, but this changed with the formation of the American Association of Medical Colleges in 1847 with the goal of “raising standards of medical education on all fronts: requirements for admission to medical schools, examinations for licensure [60].” This created a way for society to differentiate medical professionals from those who are not as experienced, but a standardized method of education was still lacking. This was fixed in 1917 when the Yale plan was adopted by medical schools, which allowed the student to work mostly on their own and have periodic examination given by the National Board of Medical Examiners [60].

At this point, the paper outlined by Dr. Fulton goes no further in covering the history of medical education, therefore, research surrounding this topic should turn towards an article written by Georgia Alton titled “The History of American Medical Education.” This article outlines more recent developments in the medical education system such as residency. Alton states that “Specialties such as ophthalmology, surgery and obstetrics/gynecology -- along with associated certification boards -- arose during the first few decades of the 20th century,” allowing for “specialization and sub-specialization among American doctors by the 1930s and 1940s [61].” After this system was put in place, starting in the middle of the nineteenth century,

"the basic components of the modern American medical educational system were in place: students attended medical school for four years and then completed an internship followed by a residency, taking board examinations along the way [61]." This system continues until the present time, meaning that the education system that currently supplies society's medical professionals has not experienced much change since the 1960's.

When considering the education system for future doctors has remained constant while also observing great scientific advances and changes in recent years, the natural progression from this idea is to generate newer and better methods of teaching and learning in medical school. In researching this topic, the idea of theatrical education in medical school to teach a variety of different skills shows up as a topic of discussion. Theatrical education in medical schools offers a unique opportunity for students to develop a range of skills beyond traditional medical knowledge. As the discussion that will proceed will demonstrate, the use of different theatrical exercises can help students to develop critical thinking, communication, and teamwork skills. Moreover, using theatrical education can also help students to develop empathy and understanding towards patients. By stepping into the shoes of a patient or a family member, students can experience the emotional aspects of a medical condition and understand how to approach patients in a compassionate manner. Improving the communication and performative aspects of the medical profession affects the care of patients in many ways, as discussed in this thesis, and works toward empowering physicians to work towards breaking down implicit bias in the healthcare system [66]. However, it is important to note that while theatrical education can be an effective teaching tool, it cannot replace the fundamental medical knowledge that is essential for becoming a doctor. Therefore, it is crucial that theatrical education is integrated with

traditional medical education to provide a comprehensive and effective learning experience for students.

In order to explore the idea of theatrical education becoming incorporated into medical school curriculum, research into the current studies surrounding this idea must be done. When conducting research on this topic, a few modes of research must be discussed, the first being literature reviews. This type of research is very useful as it encompasses a large body of works and places the ideas from all of the papers into one conglomerate work of literature. When literature reviews are discussed in reference to the integration of theatrical training into medical school, these works often describe the current scientific point of view for the topic. This means that they offer the relevant bodies of work that establish the existing body of research surrounding the topic of discussion while also leaving the door open for future research in topics that were not discussed since there is no existing body of literature for that subject.

The next mode of research that must be discussed is the works that fall under the category of experimental research. This involves manipulating one or more variables to observe the effects on a particular outcome. This mode of research is most useful to test the efficacy of different approaches to integrating theatrical education into medical school and to evaluate the impact on medical student learning and performance. However, most of the experimental research that is talked about on this topic involves some sort of survey within the study at some point. Therefore, when discussing experimental research, it is also key to bring up the mode of research that involves surveys and interviews. This type of research is useful for gathering data from medical students, educators, and healthcare professionals to better understand their perceptions of theatrical education and its potential benefits and drawbacks. When looking at

data that comes from surveys and interviews, it is important to understand that the data acquired is qualitative, meaning that the data is descriptive in nature and can identify things that the participants in the study find useful or needing change. However, this type of data can only bring research into this topic so far, and therefore the quantitative aspect of experimental research must also be brought into the discussion. Both of these types of research are offered depending on the subject, so therefore the information gained from such studies should be understood with the overlying general structure of the study.

After discussing the modes of research that were undertaken to provide the research backing theatrical education in medical school, the substance of this thesis must be discussed. It is crucial to note that each of the chapters will outline the details of each subject matter in much greater detail; however, the general outline of the content of the chapters should be given before this detailed analysis. The first chapter centers around the idea of communication as a skill that medical professionals find necessary and should be taught and how that skill can be acquired from education that teaches actors how to communicate with the audience and other actors. The benefits of this teaching can be seen in the many studies that are presented in this chapter, including increased patient care, increased empathetic communication, and increased ability to understand what a patient is saying if they are unable to verbally communicate with their doctor. This chapter not only talks about what communication skills can do for medical professionals, but also how doctors can learn these skills in medical school from theatrical education. The communication skills learned are described to help not only doctor patient interactions, but also doctors interacting with each other and other parts of the medical system. Therefore, the importance of this education is shown and how theatrical education can be used to teach these necessary skills.

Chapter two investigates the relationship between performance and the professional life of a doctor. As described in this chapter, the medical profession can often be seen as a performance either to the interaction that doctors have with their patients or the interaction that doctors have with other medical professionals through presentations. Even more specifically than these performances that is also brought up is the performative aspects of surgery that also play a role in a large part of the medical profession. The performance skills that can be useful to a doctor are those described earlier as the interaction with the patients and other scientists; however, when considering the topic of surgery, more skills such as the ability to handle stress and the ability to improvise can also be displayed as a useful skill in the arsenal of a medical professional. In understanding the importance of these skills, the conversation shifts to discussing how the education that centers on theatrical training can benefit doctors, showing through experimental research containing qualitative surveys along with quantitative data to describe the benefits of this training. In this way, the performance aspect of a doctor's job is displayed and analyzed for further improvement by theatrical education in medical school.

Finally in the third chapter, the discussion changes to how do medical schools and researchers progress the idea of theatrical education as part of the training to become doctors. Chapters one and two provided the essential content that shows the importance of the steps that this chapter outlines. In this way, while the chapters beforehand discussed the body of evidence that exists at the present time, the third chapter aims to look at future prospects that are based on this current body of literature. By looking at what medical schools are presently doing and understanding how to implement and improve these systems of theatrical education, this chapter shows what is possible with teaching communication and performance skills in medical school. However, in order to improve the medical school curriculum, one must first test whether or not

the methods used to teach these skills are effective or not. Therefore, this chapter also outlines the possible methods for future experimental research focused on quantitative analysis of the efficacy of these classes. By turning qualitative skills such as communication, empathy, performance, and handling stress into quantitative data, the research that would be conducted would have more substantial grounding for effecting change in the medical education system that has remained constant for a long time. This chapter also outlines implementing theatrical education in medical school to maximize efficiency and minimize stress.

Theatre education provides a unique platform for medical students to develop crucial skills for the medical profession. It enables them to practice empathy and understanding towards patients and enhances their ability to communicate effectively. Through implementing the education described in the upcoming chapters, students may learn to observe and analyze human behavior, which can help them understand their patients better along with learning to work in teams and collaborate with others to achieve common goals, which is a critical aspect of medical practice. Moreover, the incorporation of theatrical education in medical school curriculum can help students develop critical thinking skills that are essential to the performance that is integral to the medical profession. Theatre encourages students to think outside the box and be creative in their approach to problem-solving. This skill is essential for doctors as they often encounter complex and challenging medical cases that require innovative thinking to find solutions. Overall, the integration of theatrical education into medical school curriculum can offer several benefits that can ultimately improve patient care. Therefore, it is important for medical schools to consider incorporating such programs into their curriculum to prepare the next generation of doctors to be not only knowledgeable but also empathetic and effective communicators. This

thesis will consequently aim to improve medical education by enhancing the academic and personal aspects of medical professionals.

Chapter 1: Communication

Communication is a crucial skill in any profession, but it takes on an even greater importance in the medical field. Effective communication is essential in the medical profession, as it plays a critical role in building trust, establishing rapport, and facilitating shared decision-making between healthcare providers and their patients. Clear communication allows patients to understand their diagnosis, treatment options, and any potential risks or benefits. It also allows them to express their concerns and preferences, which can be crucial in developing a treatment plan that aligns with their values and goals. Additionally, strong communication skills are necessary when working in interdisciplinary teams, as healthcare providers must be able to collaborate effectively and share information in order to provide the best possible care. Moreover, communication skills are important in building relationships with colleagues and patients. Medical professionals who communicate effectively are more likely to establish a strong rapport with their patients, which can result in better health outcomes. Patients who feel heard and respected by their healthcare providers are more likely to follow their treatment plans, adhere to medication regimens, and maintain healthy lifestyle habits. In addition, effective communication among healthcare professionals can lead to a more cohesive team, which can ultimately result in improved patient care and outcomes. It is the utility of these skills in the medical profession that give rise to the necessity for theatrical education that will be discussed in this thesis.

The traditional method of educating students into becoming medical professionals has become a topic of conversation recently due to the lack of wholistic education in medical school. Former head of Medical and Health Professional Education and Deputy Dean of Flinders university David Prideaux notes that “development in medical education has clearly come through interesting times over the last few decades in terms of an emerging understanding of the totality and complexity of the overall approach [1].” One topic of concern is the communication barrier between doctors and their patients. In society today, there are many ways that communication between a doctor and their patient can be hindered. Since the importance of communication has been highlighted, the next step to take is to look at the different barriers that are present and how medical education can be changed to compensate for these barriers. Therefore, in the journey of exploring how theatrical education can benefit medical education in reference to communication skills, the many possible barriers to communication must be brought to light.

The first and most obvious way is that the doctor and their patient do not speak the same language. As reported by a survey conducted Dr. Hornberger et al., only thirty seven percent of doctors reported being fluent in a non-English speaking patient’s language [2]. This communication barrier is accentuated by the fact that when patients were surveyed, only twenty seven percent of non-English speaking patients believed that their physician was fluent in their language [2]. These statistics demonstrate not only the lack of ability for doctors to communicate, but also the gap between doctors thinking they are able to communicate and the patient’s ability to understand the physician. This ten percent difference in the data reported by the doctors and the patients a disconnect between the doctors believing they are fluent in a language and the patients actual experience of the doctor’s communication in that language. This

not only emphasizes and highlights that there is a burden on the communication that is occurring between the doctors and their patients, but also emphasizes the need for doctors to use more than just the words that they are saying to communicate with their patient. Every doctor cannot learn every single language there is, but if a doctor was trained to express ideas with more than just their words, then communication between the doctor and the patient could be enhanced.

Currently, most evidence surrounding the issue of the language barrier within the medical field centers on the use of medical interpreters. The medical interpreter not only provide a way to convey ideas across a language barrier but also can "helps bridge the cultural divide between patients and clinicians [62]." According to practicing nurse and associate professor at Rory Meyers College School of Nursing Dr. Allison Squires, "[T]he translation process ensures that what a nurse says is delivered not only with technical accuracy, but also with culturally specific phrasing [62]." However, there are a couple of issues that are explained by Dr. Squires that are made clear when working in a hospital. These issues include "depersonalization of the patient encounter when using the interpreter phone" along with the possibility of legal troubles when "[I]nappropriate interpreter use, including nonvalidated translation apps on a nurse's smartphone" occurs in a hospital [62]. Therefore, Dr. Squires highlights that medical interpreters should be used at specific critical points in healthcare such as "at admission, during patient teaching, and at discharge [62]." It is through usage at specifically these times that the usage medical interpreters "decreases the risks of medical errors and hospital readmissions [62]."

While usage of medical interpreters at critical points has been shown to be beneficial, communication during the other points of contact during the care of the patient should also be explored in order to help close this language barrier along with relieving the strain of medical

interpreters and removing the depersonalization that can occur with this service. While the inability to communicate verbally to a patient may inhibit some aspects of healthcare, it highlights the idea that non-verbal communication between a doctor and their patient may have a role to play in the treatment given during medical care. As will be explored later, non-verbal communication skills can be taught to medical professionals, and therefore, can be integrated into situations involving the requirement of these skills.

Communication barriers can be more than just the difference of language between patients and their doctor, as new studies have shown. A study by Dr. Mira shows that twelve to forty-one percent of patients receiving care at a hospital or health center are unsatisfied with the information provided by the doctor or consider the information their doctor provides them insufficient [3]. Some of the major difficulties in this communication that the patients cite is that there was a lack of time in their appointment, information was found on the internet before the appointment, and a negative experience with other health professionals [3]. One reason patients might have had one of these negative experiences can be due to the many differences that can be found between the doctors and their patients. One such difference that can lead to a communication barrier is class. Medical school education alone costs on average $157,080 for an in-state, public education and $254,768 for an out-of-state private school, which doesn't include the four years of undergraduate education that precedes medical school [4]. Needless to say, this education can lead to the graduating class of most medical schools to consist of those who can afford this education. In a study conducted by researcher Arman Shahriar, over half of those who were accepted into medical school belonged to the top twentieth percentile of household incomes, and almost a quarter of those accepted belonged to the top fifth percentile of household incomes [5]. Not only are the rich accepted more into medical school, they also are seen to

perform better in medical school with “[N]o significant differences” being observed between the different incomes in “clinical competence during medical school [6].” All of this suggests that there is a clearly defined class barrier that exists between the doctors and their patients, and this can lead to a lack of familiarity and trust between a patient and their doctor. However, class is but one of many barriers that can be addressed. Race and gender gaps also play a role in accentuating the gap between a doctor and their patient, as there are far more White or Asian matriculants into medicals schools and women underrepresented in many specialties in the medical field [23], [24]. The combination of all these strains is just a part of the reasons why communication barriers exist in the medical field today.

Many routes could be taken to close this communication gap between a doctor and their patient. While the inability to speak a language may only be overcome by the doctor’s ability to communicate verbally with a patient, the other forms of communication barriers such as class and race may have another solution. One form of media that has bypassed class barriers and racial barriers is theatre. Theatre is widely enjoyed by people from every part of the world, and a deeper look into the communication used in theatre may shed light on how best to move forward in the medical field. First, performance in theatre must be defined so as to clarify what this chapter and future chapters will be discussing. A theatrical performance is a dramatic presentation to entertain or inform the public. It is an art form that uses spoken and/or written language to create a plot and relies on the skills of its performers. With so many different types of performances, it is easy to see how theatre has become an important facet part of modern life. Many people think that theatre is just for entertainment purposes, but it has several unique qualities that make it exceptional compared to other media. One such aspect is the idea of communication between actors in theatre. Theatre encourages exchange between the actors and

the audience to associate with character's emotions and feelings in the play. This makes it easy for audiences to identify with the characters in the play and empathize with the emotions being portrayed. Communication skills, therefore, are a critical aspect in the skillset that an actor must acquire. Without the ability to communicate, an actor cannot convey their message to an audience with their performance. The training that actors go through will therefore emphasize communication, reflected in course curriculums meant to train future actors. Curriculums for theatre majors typically have a class or classes that teach physical expression through voice and movement while also taking courses that focus more specifically on choreography and acting. No matter the institution, the combination of these curriculums seems to have great success in the acting realm as shown by the fact that millions of people spend their time and money to go and consume media such as television or plays to enjoy actors who have trained in the art of communication.

However, the question remains on how this education will benefit doctors in their profession. In order to do examine the benefits, a closer look at the communication that actors use on stage is necessary. When an actor is on stage, the first and primary form of communication most important to the actor is between themselves and the audience. If the audience is not receiving the message that the actor is trying to send, then the performance itself will be seen as a failure. Not only does an actor have to communicate well, but this transfer of information has to be believable enough for the audience to suspend reality to enjoy the show. As author and director Joanna Bowman puts it, "As an audience member, we get to choose who we look at and when in a theatre [7]." In order to draw in the audience enough to suspend their reality for the show, however, the actor has to evoke an empathetic reaction in the audience. This empathy that the audience will feel for the actor is crucial because without it, the actor has no

way to draw in the audience and therefore the message will not be received by the people watching the show.

The empathetic hook that an actor employs in a show is a crucial part of the training to become an actor, and this education is able to translate into the medical profession in many different facets of the job. The first and foremost way that this empathetic communication would benefit a doctor's communication would be in closing the gap in trust between a doctor and the patient. As previously mentioned, there are many barriers to communication between doctors and their patients that involve a lack of trust due to differences in class and race. However, if a doctor is able to bridge that gap with empathetic communication, the gap formed from distrust may be able to close. Therefore, research into methods of increasing empathetic communication must be conducted. In researching this topic, a study done in 2009 by Bonvincini et al. explores the impact that communication training could have on physicians' ability to express empathy towards patients. In order to quantitatively measure empathy expressed between those who received training in communication and those who didn't, researchers "audiotaped physician–patient interactions from a large, randomized control trial" which were then "coded using the Global Rating Scale (GRS), a third-party coding instrument used for measuring overall ratings of physician empathy [9]." When the data was collected, the results found that "training would significantly increase physician empathic expression during patient interactions" and was demonstrated by "observer measures of empathy: a global rating scale and a scale measuring physician response to patient empathic opportunities [9]."

This change is not only noticed by those who conduct these studies, but also the patients. In a review conducted by Dr. Schwan, a psychology professor at Central Washington University,

on studies examining patient perception of doctors after they have been trained to communicate empathetically, they found that "[P]atients rate physicians who receive this empathy training as significantly more empathetic than those who do not receive such training [8]." This is important to note because while the study conducted by Bonvincini et. al. used a third-person quantitative measuring tool to objectively measure empathy, the patient's experience of empathetic communication is the most important facet of this communication. While a rating scale may say communication is evaluated to be empathetic, if the patient does not recognize it the education would be seen as a failure. However, the review conducted by Dr. Schwan displays that the benefits of this education are noticeable to patients when receiving healthcare. This means that empathetic training can be quantitatively measured as improving the interaction between the patient and the doctor.

Making a connection with communication between the doctor and patient is important, but once that connection is made there are even more skills learned as an actor that can be quite useful to a medical professional. As previously stated, the goal of an actor is to convey a message to the audience. This is done in many ways, but the overall skill that is learned in order to send a message is the ability of storytelling. While there are many performances as an actor where the storytelling is simple and easily digestible to the audience, there are a multitude of stories that are told through plays that utilize abstract methods of performing which can benefit the medical profession. The first topic to explore relies on the previously mentioned topic surrounding the language barrier existing in the medical profession. As mentioned earlier, non-verbal communication may have a beneficial role in the healthcare of an individual by increasing the ability of a doctor to communicate when a medical translator is not present. However, the communication here is useful for the application of those studies to the medical profession. By

conveying a story through body language, an actor demonstrates the ability to convey a message without talking. This skill that actors must learn can then be applied to medical professionals to use their own body in ways that can assist in clarifying ideas to a patient without needing to communicate verbally. While this skill may be applicable, it is still important to realize the limitations of applying this skill to these situations. As previously stated, the use of medical interpreters is critical for certain important times and should be used in order to avoid disastrous mistakes in communication. However, healthcare is not defined by just these critical moments, but rather the entire care of an individual, and therefore implementing these skills in the everyday support of a patient may show beneficial results.

After exploring the direct application of non-verbal communication skills, it is important to recognize another application of these talents. The use of interactions that lack speaking highlights the skill to think critically on how one will communicate with the audience in non-conventional means. The idea that acting can enhance one's ability to think critically is a topic that has begun to be researched, with people such as María Bessega et al. who describe "social actors" and their ability to think critically [14]. A social actor is defined as "anyone who engages in intentional action which is shaped by internalized expectations of how others will interpret its meaning" and therefore "see social interactions as a performance in which actors stage-manage their actions (not necessarily consciously) [14]." Using this definition, Bessega makes the claim that the skills that are acquired as a social actor can enhance one's own autonomy and their own critical thinking skills in a classroom setting [13]. While these tools may be used in a learning setting, there are many applications in which enhanced critical thinking skills in terms of the ability to communicate may be useful.

Since an actor must develop the skills of thinking in non-conventional methods to send a message to an audience through a variety of ways, it is important to see how this can affect the way that a medical professional interacts with patients. One of the goals of a medical professional is to educate the patient about the disease that they have and on the treatment that they are prescribing. This is not only important for the patient's knowledge of their own body and what is happening, but also so that the patient receives the information from the doctor with a more open mind that is willing to take the prescribed treatment. A common problem found between the doctor and their patient is the distrust that people have in the medical profession. As previously mentioned, the public has a lack of trust in the medical field for a multitude of possible reasons, stemming from either personal experience or external circumstances. In either case, it is important for the doctor to establish a connection with the patient so the gap can be bridged between the patient and the doctor.

While a doctor can tell a patient that they can trust them, there is no evidence that verbal statement to blindly trust them as a doctor is sufficient to convince someone to put their faith in another person. However, there was a study conducted by Dr. Clark et al. that taught physicians nonverbal and verbal methods of communication that were intended "to develop a partnership with their patient [15]." These skills that were taught included nonverbal means of showing attentiveness, giving nonverbal encouragement, maintaining an interactive conversation, and many other means of increasing communication with patients [15]. Not only did this study look at increasing the tools with which doctors could communicate, but it also was conducted with physicians who had children as patients, increasing the demand for nonconventional means of communication. In the end, this study found that "performance of physicians in the program group was rated more favorably by their patients' parents, even though on average the clinician

reported spending less time with them" and that parents felt more reassured and informed with less fear [15]. While this study does not directly claim the skills that they taught to be related to acting, the methods of nonverbal communication and maintaining interactive conversation are crucial skills that an actor needs to be engaging to an audience. Through this study, it can be noted that the skills gained in the training to become an actor may be successfully applied to the medical profession to not only improve the interaction between a doctor and their patient, but also shortening the time it takes with each patient, freeing up the physician to treat more people. Therefore, these skills are useful in bridging the gap in trust between patients and the medical professionals that they see along with increasing the efficiency of the medical workplace.

While the discussion so far has focused on the interaction between the patient and the doctor and how they communicate, that is not the only interaction that exists in the medical field. Even though the interaction between a physician and their patient is key to the health of that patient, that interaction takes up only thirteen percent of a typical physician's shift, whereas according to a study conducted by Rachel Butler et al., around thirty to forty percent of the time a physician is working is spent in the physician's workroom [10]. In these workrooms, doctors can consult with other medical professionals in order to come to a conclusion in identifying a problem. Therefore, pinpointing problems within communication within the medical field can also improve the care that a patient will receive. This barrier to communication can also be observed in the interaction between doctors and nurses. A patient may spend eighty-six percent of their time with a nurse instead of a physician, but interactions between nurses and doctors were sparse, with nurses spending only two percent of their shift in the physician's workroom [10]. Comparing the time that patients spend with the nurses to how much the nurses interact with the physicians displays that a gap may exist between the nurses and doctors.

Discussing the gaps in communication within the medical field along with the gaps in communication between a doctor and their patient is important due to the fact that it highlights the issue of the lack of formal education in these skills. The previous paragraphs outlined the specific problems in communication, therefore, the research that should be conducted into possible additions into medical school curriculum should focus on ways to fix these issues found in the healthcare system today. With respect to the doctor patient interaction, studies conducted on improving efficacious and empathetic communication will be useful in describing ways to bridge the gap between doctors and their patients. Along with the idea of efficacious communication is the idea brought up by interdisciplinary communication within the healthcare system. Research conducted into improving general communication skills would also be useful with respect to this topic as increasing the effective communications between doctors and either nurses or those they work for will provide a guide to how medical schools could structure their curriculum. In tandem with useful communication is the idea of non-conventional communication, as research that describes ways the medical profession can benefit from education on this topic will provide structure to future curriculums focused on this topic.

Once an understanding that the communication between medical professionals can find merit in improvement, the research surrounding this communication with respect to theatrical acting can be analyzed. In order to present the story, therefore, there must be a connection between the actors on stage. Focusing on the acting portion of theatrical performance, actors have to be in tune with each other so that they are feeding into each other and not contradicting each other's acting choices. This skill is especially developed in improvisation comedy in the concept called "yes, and…." The concept of "yes, and…" is where improvisation actors work on saying "yes, and…" in response to another actor's question or choice instead of saying no or

something else that would kill the action onstage. This skill is essential to all improvisation comedy due to the fact that all action in improvisation comedy would abruptly stop if this rule concept was not followed. This can be especially useful to medical professionals due to the nature of how treatment is prescribed to a patient. Often, doctors will work with each other and other medical professionals in order to come to a final treatment plan for a patient. Directly contradicting a fellow medical professional by responding to their idea with a verbal blockade such as 'no" or "that's wrong" can immediately create tension and negativity in a team that should be working together. However, using redirecting techniques found in improvisation and the idea of "yes, and…" can increase the feeling of teamwork between medical professionals and can lead to a fuller, more wholistic plan for treatment.

This idea of including the "yes, and…" skill into medical training is not a new one, a workshop called Improvisation for Caregivers was analyzed by Kelly Leonard and Anne Libera. Leonard and Libera explored the different skills that were taught as part of a curriculum meant to teach improvisation to health care providers. One of these exercises was called "Sharing and listening" where "space must be created for each person in a group to collaboratively build upon everyone else's ideas, whether innovating new processes or products, problem solving, or working in crisis mode [12]." This exercise specifically trained health care workers to use the "yes, and…" concept in their practice, and the Leonard and Libera noted that this exercise, along with others "has implications for the well-being of all caregivers" due to the fact "improvisation bolsters the skills of individuals working in teams and team environments [12]." Therefore, the authors concluded that teaching these skills is beneficial because "onus is put on the team, not on the individual," and thereby increasing communication between medical professionals.

Concerning the communication skills that an actor learns and how they apply to a medical professional's work, there is much evidence that these tools are useful to show that these skills are useful as seen previously. However, it is important to look at the efficacy of these trainings to see specifically if training as an actor is useful to medical students. The idea that training medical students in skills useful in the theater as an actor is a new idea that has recently been seeing some traction in the past decade. One study, written by Dr. Skye at al., looks at the role of theatrical education to develop medical school students' ability to confer bad news to a patient. This study took half of a medical school's second year student population and used a twenty-minute sketch along with a discussion afterwards to facilitate growth in the medical students' ability to share bad news with a patient. After this procedure was completed, the medical students took a survey in which they rated the efficacy of the activity they had participated in. Out of all of these participants, ninety-four percent of the respondents said that they "agree or strongly agreed that the piece helped them think about the different perspective involved in the way patients and health care providers communicate" including comments such as that the training allowed "the space to think about the situation from the patient's perspective in a way that is harder to achieve when you are directly involved [16]." This study concluded that they were able to "use professional actors in the role-playing exercises" to "provide a more realistic basis upon which the students may build their skills at breaking bad news" in a "supportive, simulated environment" to "push students out of their comfort zones [16]." Therefore, the education of these communication skills using theatrical education is well received by the medical student population.

While the previous study looked at how medical students react to education based in theatre, the ability to teach communication skills through theatrical education requires analysis

from non-participants of the course. Therefore, it is useful to investigate the research completed by Venustiano Borromeo. In this research, Borromeo conducts many studies in order to ascertain the influence of acting classes on students' communication skills. This study contains a component in which the students describe their communication skills before and after their training as an actor, and each student described their skills as having developed as a result of this training [17]. However, this was followed up by an in-depth interview of the participants in order to verify their self-assessment of their communication skills, and these interviews concluded that the training that these participants received not only increasing their communication skills but also giving the participants more confidence in their ability to communicate [17]. While this study was concerned mostly with undergraduates not necessarily affiliated with the pursuit of a medical degree, the skills learned in these acting classes have been shown to be effective at increasing one's ability to communicate, and along with the fact that theatrical education is a well-received method by medical students and gaining traction in the medical field by the fact that these studies exist, it is worth looking into these effects in more depth in order to understand just how much a medical student can attain from some education as an actor.

As previously noted, increasing the communication skills of medical professionals can greatly increase the trust between the doctor and their patient while also increasing communication within the medical field to provide better treatment; however, the question remains whether or not these skills actually lead to a quantifiable difference in the quality of the treatment that a patient may receive. The first part of proving the effect of better communication skills for medical professionals is to understand the role of these tools to the patient's understanding of their illness. A study conducted by Dr. Lermen et al. analyzed the effect of what the lack of communication skills can do to the patients' understanding of their disease and

their health. In order to do this, Dr. Lermen recruited ninety-seven patients with breast cancer in order to collect data on communication with their doctor, psychological distress, and clinical outcomes for the patients. This study concluded that not only did the patients who experienced difficulty in the patient-physician interaction experience less understanding of imparted material, but also difficulty asking questions relating to their health and treatment [18]. This is significant due to the idea presented by a study presented by Dr. Stewart that found patient education was "demonstrated to affect physical health, level of function, blood pressure, and blood glucose levels" using data collected from twenty-one different studies that included randomized controlled trials and analytic studies on physician-patient communication [19]. This means that the ability of the physician to impart an idea in order to educate a patient directly increases the quality of life of the patient receiving treatment. Consequentially, it can then be determined that communication skills are integral to the healthcare system and should therefore be part of medical education.

The effects on patient care of physician-based communication training can be seen across many disciplines in the medical field as described in a review paper given by Dr. Street et al discussing the link between communication and healthcare. To put this review paper into perspective, studies conducted on patients with chronic disease and patients simply receiving a checkup from their primary care physician can give context to the findings of the review paper written by Dr. Street et al. In patients with chronic illnesses, patients with doctors who communicated well "reported fewer days lost from work, health problems and functional limitations because of illness" and "rated their health more favorably at follow-up [20]." Similarly, in the study conducted by Stewart et al. in relation to the patients visiting their primary care physician, found that patient centered communication "was associated with positive health

outcomes [21].” Not only did this study see healthier patients when there was better communication, but also an “increase efficiency of care” due to “reduced diagnostic tests and referrals” that were necessary [21].” These studies consider separate categories of patients in order to support the large body of works that are cited in the review paper written by Dr. Street et al. that determined the inherent link between the improvement of communication and increase of health in the patient’s health and quality of life [22]. Therefore, due to the direct link between the health of the patient and the ability of the doctor to communicate effectively, communication education and skillsets should be one of the focuses of medical school education.

Due to gaps in socioeconomic status, race, and other factors, there is a burden on the communication that is occurring between the doctors and their patients. These difficulties in communication that the patient's site is that there was a lack of time in their appointment, information was found on the internet before the appointment, and a negative experience with other health professionals. Along with these skills, another skill needed in a medical professional is to educate the patient about the disease that they have and on the treatment that they are prescribing. All of this suggests that there is a clearly defined barrier that exists between the doctors and their patients, and this can lead to a lack of familiarity and trust between a patient and their doctor. In connection with the topic of theatre, the education that an actor receives not only can improve their own communication skills, but in the context of the medical field, can increase the trust and communication between the physician and their patient. Therefore, looking towards inclusion of education that resembles the communication training that actors receive in pre-medical and medical studies is an opportunity to not only improve the medical field as it is now, but also relieve some strain on the healthcare system, which benefits both the patient and

the doctor. However, communication is not the only way that the medical education system can benefit from theatrical education, as there will be evidence to show performative benefits as well.

Chapter 2: Performance

When discussing the aspects of theatre and actors who perform on stage, the idea of an actor and their performance on stage is intrinsically intertwined. Therefore, when discussing the benefits of theatrical education within other fields of study it is important to understand how performance is integrated into that profession. Performance is defined by the Britannica encyclopedia as "the planning, rehearsal, and presentation of a work [63]." This definition further explains that "such a work is presented to an audience at a particular time and place by live performers [63]." The art of performing on stage is a complex and multifaceted discipline that requires a combination of communication skills along with performative skills. Whether one is seeking to entertain, educate, or inspire, the use of performance can be a highly effective tool for achieving one's goals. By developing their performance skills through theatrical education, individuals can gain the confidence, creativity, and communication skills that are necessary for success in any profession, including medicine.

In order to understand the intersections between the performance training an actor receives and the medical profession, an analysis of the knowledge and skills gained from curriculums focused on performance-based acting training must be done. According to a recent article by *College Factual* concerning drama and theater arts degrees, those who train to become professional actors will have to take a multitude of acting, speech/voice, and physical expression classes along with extra courses such as theatre history classes throughout their educational career [64]. In the discussion that will take place in the rest of this section, the classes that have most pertinence to the topic at hand are not the extra courses, but rather the courses focused on the practice of acting. However, it is important to understand what goes on in these classrooms to

better grasp what is being taught to those studying to perform on stage. While each school will differ tremendously with how the curriculum is exercised, there are standard requirements in order to be a viable part of the acting community. Unlike the topic of communication covered in Chapter one, these performance-based skills that will be discussed will affect more than just the interaction between the doctor and those around them. Rather, this chapter will focus on how performative skills affect all aspects of the medical profession, and that these particular skills can be derived from acting training that are helpful for those wanting to become a medical professional for a multitude of reasons.

In his book *Acting in Academy History*, Peter Zazzali writes about acting curriculums throughout America and what they teach. Exploring this literature is important to the discussion encompassing performance as it gives a perspective of the exact types of skills being taught in American universities today. First and foremost, Peter explains that "improvisation and rehearsing plays were the basis for training performers to have a keen sense of theatrical and emotional truth in their craft [26]." Improvisation is the basis for creation and performance of theatre, so it makes sense that this skill is integrated into an actor's training in academia. While rehearsal is also mentioned as an important part of the training to become an actor and the usefulness of rehearsing not being lost, the skill that will be mentioned further in the discussion surrounding medical education integrating with theatre will direct focus more towards the skill of improvisation as it is more specific to theatrical education than the ability to practice material.

Furthermore, Zazzali claims that this improvisation work works in tandem with classes designated to developing an actor's voice, claiming "voice and speech courses complemented an amalgam of movement techniques [26]." Some of this voice work included exercises such as Meisner's exercise on spontaneous human vocal behavior. This exercise would have a pair of

actors learn how to control the entirety of their voice by "instinctively and repetitively verbalizing an observation about each other until the exchange becomes fluid to the point of organic communication [26]." These exercises involve a pair of actors who use one word to enact an entire scene or conversation. During these exercises, actors are able to control the flow and meaning of a conversation by the mere use of vocal inflection and body language, as the words of the conversation give no meaning to the other actor or an audience. In order to make the scene work, however, the flow of the conversation has to be spontaneous and natural, relying on the body's own response to the information the other actor is giving. Therefore, practicing this exercise can increase the control that an actor has over their own voice and body.

In a similar aspect, Zazzali also explains that the curriculums are also gauged to teach a person on stage "respond spontaneously and realistically to stimuli [26]." What this means is that those who get taught this curriculum with not only be able to respond well to an experience with trained vocal skills as previously discussed, but also be able to respond to a situation quickly and appropriately given a certain random set of circumstances. Exercises to enhance these skills will not only allow an actor to perform each scene as if they have not rehearsed it many times before, but also allow for the actor to handle different stressors on the stage such as lines being skipped or technical errors. It is this standardized education system for acting training that performers gain a multitude of skills that are applicable to many fields.

Understanding the techniques that an actor learns about performance in academia is important, but it is also important to understand what these skills teach actors outside of the theater. First, the performance technique of improvisation should be analyzed for its usage beyond the stage. Improvisation is the skill in which an actor is able to work with others to set up a functioning scene without rehearsing it. Those who improve and train this specific skill will be

able to expand upon the activities previously discussed surrounding believable instinctual reactions to stimuli in order to be able think critically and quickly in any situation that may arise. While the specific techniques taught in academia pertain mainly to the ability to improvise a scene, these skills can translate to multiple different facets of life. In a review paper written by Dr. Chelariu, multiple studies show that "learning can be a result of improvisation, where there is discovery and retention of knowledge…and lessons drawn from an improvisation episode become a part of organizational memory" which can lead to those studying these techniques to "to leave aside their long held assumptions and to think outside the box and to come up with new solutions to new problems [27]." By reviewing the surrounding literature on this topic, Dr. Chelariu proposes that the skill of improvisation not only increases the ability of someone to change once long-held beliefs but also to think creatively in order to solve new issues they encounter. Knowing this, it can be shown that the improvisation skills learned while training to become an actor can not only improve the way people learn, but also change the way that people solve problems. This is important to doctors because problems that occur in the medical field often do not have simple solutions, and therefore require creative and new solutions. This, along with other applications of improvisation techniques that will be discussed, are part of the reason theatrical instruction has much to offer the medical education system.

On a similar note, the technique of responding spontaneously to new stimuli that Zazzali mentions hints at a more general skill of being able to handle different stressors. In his paper titled *Privileged Emotion Managers: The Case of Actors*, David Orzechowitz notes that "[F]ormal training provides actors with a set of techniques to manage emotions on- and offstage [28]." Being able to handle one's emotions is a useful skill in all aspects of life; however, it can be especially useful in the workplace since it allows a person to respond to different things while

remaining professional and composed. While there may be many ways to learn to control one's emotions, it is important to note that "[T]he stage provides a unique set of conditions under which actors manage their emotions," and therefore, provides a unique method of not only controlling one's emotions, but being able to learn how to control them by a specific set of coursework [28]. This is useful for many reasons, however, one reason that this type of curriculum is specifically useful to medical education is the fact that it teaches one to control their emotions while juggling multiple other given tasks. While other forms of education centered on managing emotions may rely on a more one-dimensional curriculum that focuses on isolated incidents and self-centered solutions. However, the theatrical curriculum focuses on managing emotions in a multidimensional way that best relates to the healthcare system by learning to control one's emotions in response to numerous uncontrollable factors. Given that doctors will have to manage many different emotional stressors that are sprung onto a doctor's busy schedule, this specific type of education would be of benefit to the medical profession.

Finally, the vocal training Zazzali mentions as noted earlier in this chapter speaks to the larger skill that is public speaking. From delivering presentations in a boardroom to engaging in conversations with family and friends, the ability to communicate ideas confidently and effectively is paramount. As spoken about earlier, the communication skills that one builds as an actor can improve one on one interactions, but the ability to speak publicly involves more than just communication. It requires vocal training that Zazzali describes in length pertaining to the specific techniques that were introduced by Strasberg and Meisner and taught in academia today. This training teaches one to use their body as an "instrument," relying on "body language, facial expressions, and vocal dynamics to get across not only information, but *emotion* to your audience" to vastly improve one's ability to publicly speak [29]. Being able to communicate well

verbally along with physically is shown by countless studies, including a study conducted by Dr. Chen et al. that noted that both automated and human evaluations of public speaking that included effective body language and embodiment of the presentation were given higher scores [65]. Therefore, the benefits of vocal training extend far beyond the stage and into the realm of effective public speaking.

Now that the skills that are acquired during training to become a professional actor have been ascertained, it is time to turn towards the medical field, specifically to how these skills can be applied. At its core, medicine is a performative art that requires a high level of skill and expertise to take on the role of someone's doctor. Just as actors must learn to inhabit a character and perform a role convincingly, doctors must learn to perform effectively, developing a bedside manner that inspires trust and confidence, make critical decisions under pressure, and present themselves and their work to the world. The major skills that have been discussed so far have been the ability to improvise, to handle stress and emotions, and to publicly speak and present. Therefore, to understand the intersection between the performative aspects of the medical field and the training an actor receives, a deeper analysis of these skills is necessary.

There are certain fields of the medical profession that specifically take the idea of performance even further than most other fields. One example that comes to mind is the popular field of surgery. To become a surgeon requires many years of training on top of specific training for the specialty that a future surgeon is looking into. Even though specialties involving surgery often take the longest to become fully trained in, they are still on top in terms of competitiveness, taking three out of the top five most competitive residency positions [30]. Since it is so popular, this is a field that many take special interest in finding out how to excel and stand out in reference to others that might be competing for these residencies. This is where the idea that

training in acting may come into the picture, as techniques learned in the process to become an actor may be useful to someone who is pursuing surgery. While there are many skills that may be applicable to surgery, the skills learned from acting classes that may be most useful are the ability to handle stress and the ability to improvise.

The first skill to be mentioned that applies to people pursuing surgery is the ability to handle stress. While everyone may know how stressful the process of completing a surgery might be, the toll that it takes on doctors is something to also take note of. In a Medscape report in 2022 describing the percentage of doctors in each specialty that experience burnout, forty-four percent of doctors who practice general surgery and forty percent of doctors practicing plastic surgery reported that they experienced burnout [31]. When asked about the reason for this burnout, one of the biggest reasons for this burnout was the emotional intensity that is experienced, along with time pressures and chaotic environments [32]. While currently there is not a large body of literature surrounding specifically surgeons receiving specific acting training to regulate their emotions, there is a large body of literature, including a paper written by Dr. Jackson-Koku and Dr. Grimes, that claims “use of self-regulatory or taught emotion regulation skills/interventions were associated with a reduction in burnout [33].” Since it has been shown that actors can regulate and handle their emotions better from their training, research into what the benefits in training like this could be for surgeons is a unique and new approach that may show some benefits.

The second of the acting skills mentioned that a surgeon could benefit from is the idea of improvisation. While it has been shown what it means to improvise as an actor, the idea that a surgeon might improvise may seem a little strange. Certainly, a doctor should be following specific procedures that have been proven to give the best result possible. However, when things

start to deviate from normal, steps may need to be taken to correct the situation. Complications in surgery are common in the operating room and happen in a surprising number of cases. With respect to general surgery, vascular surgery, and cardiothoracic surgery, a study conducted by Dr. Healey et al. found that complications ranged from twenty-six percent to forty-two percent depending on the specialty [34]. When complications arise, it is important to understand the balance between procedure and improvisation. Due to the complicated nature of many surgeries, it is not always beneficial to improvise new and different methods during an operation. However, as Mckenna et al. outlines, "Improvising is one strategy for navigating uncertainty. Through improvising, providers can vary their actions based on context. Improvising does not mandate a course of action, but rather is an iterative process that allows care teams to creatively solve the problems at hand [35]." Therefore, allowing the practice of improvisation into the field of surgery when it is applicable may become a useful skill as more complicated surgeries may develop more complex complications. The best part of the improvisation training that an actor receives in reference to this issue in the operating room is that actors are taught to recognize circumstances in which improvisation is necessary and when sticking to the regulated procedure, such as lines from a script, is more beneficial. In this way, the performance aspect of surgeons and the procedures that they perform can be enhanced by some training in theatrical acting.

While the surgical field is an especially performative aspect of the medical profession, there are other facets that include performance as an intrinsic component of practicing medicine. Another example of one of these elements is the interaction between the doctor and the patient. Adding to the analysis of communication between a doctor and their patient as discussed in the previous chapter, the performance behind the communication is another aspect that should not be overlooked. As stated by Dr. Case et al., "multiple performance theories offer support for

analyzing interactions in clinical situations by recognizing that every person in the patient's room and hospital corridor is performing his or her role [36].” While saying that the interaction between doctors and patients is a performance, this does not mean the performing role of a doctor is insincere, but rather “an acknowledgment of learned behaviors developed to meet critical objectives. These roles include appropriate and symbolic costumes, notably the white coats of the doctors and the loose gowns of the patients. Scripts are followed closely, having been learned—and sometimes consciously rehearsed—before the performance [36].” This means that, in combination with the communication skills previously spoken about, those pursuing medical education would receive the tools in order to perform their job with professionalism and mindfulness. This idea is reinforced by Michael O’Donnell, who states that “the more a medical performance is based on understanding, the more likely it is to be therapeutic [37].” With this in mind, it is not difficult to see the benefit that performance-based training could have for medical professionals in order for them to treat their patients to the best of their ability.

The final skill mentioned in reference to theatrical acting is the ability to publicly speak in an effectual manner. While discussion on doctors and their interactions with their patient has dominated the communication discussion, doctors often find themselves presenting ideas and research to more than just their patients and are therefore not strangers to the idea of speaking publicly. More specifically, doctors may “provide health education lectures in the community for patients while others become involved in advocacy, making presentations to lawmakers to inform policy decisions that affect health” along with attending seminars or conferences “to share your approach to patient care with your peers” or “present your research findings in front of an audience [38].” When observing what acting classes can bring to one’s public speaking skills, there are many skills that an acting class can bring to the medical field. Learning how to

respond to an audience, to use body language, to use one's voice, to be energetic, and to be confident in front of an audience are a few ways that acting classes can specifically increase one's ability to be a better public speaker [39]. Therefore, public speaking skills are quite useful as a medical professional, and while one can take a course specific for public speaking, the other benefits gained from courses in theatrical acting mentioned previously offer more skills with the same coursework load.

Understanding the connections between the medical field and the acting profession, it is time to bring attention to the reception of this kind of curriculum. As many people know, medical school is packed with classes and lectures along with studying, and courses such as a performance-based class may be seen as uninteresting and irrelevant. This is classified as the relevance critique in a paper written by Dr. Shapiro et al. that describes different discontents that a critic of these programs may have. As Dr. Shapiro puts it, the relevancy critique claims that the humanities may be seen as "important to future physicians in some indirect way, but it asserts that the material is impractical. The humanities can't provide student physicians with concrete skills (such as learning how to start an IV) that are useful in clinical practice [40]." However, to retort this claim, Dr. Shapiro et al. looks at a study where students were questions after receiving performance-based training and found that over half of the students giving it positive ratings and the other half of the student body giving it moderately low ratings [40]. In another experiment conducted by Dr. Gretchen and Dr. Micco, setting up a course that allowed doctors to perform for both elderly and young patients was seen as a resounding success [41]. When asked if this interdisciplinary work can work together with PhD and medical education, the response was also positive, stating that "[T]he rewards for both of us were clearly manifested and includes a better understanding of each other's disciplines, the pleasure of stretching into unfamiliar academic

territory, and the excitement of working with a variety of new students [42].” In a more practical sense in reference to becoming a doctor, Dr. Gretchen notes that the skills learned from this course were “not only necessary to a fulfilling career in the medical professions, they are an essential part of a reflective, satisfying life [42].” Therefore, the relevancy and the ability of these skills to translate over to the medical profession has shown to be accepted and useful to those looking to become doctors.

Once it is understood that the curriculum taught to actors translates to and can be accepted by medical school curriculums, the question that remains is does this training work. To explore this idea, a look into the research that surrounds this idea is necessary. In doing so, a study by Dr. Macneill et al. titled “Actor training for doctors and other healthcare practitioners: A rationale from an actor’s perspective” surfaces to describe the possibilities of such training. In this study, a multitude of exercises were held in two workshops that were “offering health care workers (HCWs — clinicians and others) training in theatre skills and techniques to expand their range of ‘performativity’ and effectiveness [42].” The exercises that were done were to enhance performance on a theatrical level and included activities such as performing scenes in masks, body awareness activities, and voice work activities. While mask work was not specifically talked about in reference to the typical curriculum of actors in academia, training in body awareness and the voice were specifically mentioned as foundational parts of acting curriculum. This study found that these exercises were able to enhance the ability of a doctor to relate to a patient through embodied practice along with increasing the ability to manage the emotions behind sympathy along with the analytical rational that comes from being a doctor treating said patient [42]. The main focus of this study, however, was not to show specific, quantifiable results

on the health care workers that went through this program, but rather to offer a number of justifications for this work.

In order to see more quantifiable data, more data must be analyzed that gives some qualitative or quantitative analysis. When looking for more analysis on this topic, another study conducted by Dr. Macneill et al. titled "Enhancing Doctors' and Healthcare Professionals' Patient-care Role through Actor-training: Workshop Participants' Responses" can be observed. In this study, a multitude of workshops similar to the previous study were conducted in order to find how relevant the material seemed and if it would be useful for medical professionals. After conducting these experiments, the researchers found that the material was not only well received, but also caused "revelations in understanding and potential changes in approach to 'acting in the role' of a doctor, nurse and other healthcare worker" and that actor-training that was experimented with in this study resulted in "acting skills, self-awareness, and effectiveness of clinicians, trainees and other HCPs" in relation to working with their patients [43]. With these results in mind, the combination of these studies shows a possible benefit that could result from more research into what theatrical education can do for the medical profession in terms of performance directly relating to patient care.

While patient care is one aspect talked about in terms of performance, there are other aspects of the medical profession that contain aspects of performance that should be researched. As mentioned before, doctors will often be presenting information to peers or to an audience at a conference, and a study conducted by Dr. Hammer et al. looks into how acting training can affect a doctor's ability to perform this task. In his paper titled "Telling the Patient's Story: using theatre training to improve case presentation skills," Dr. Hammer et al. outlines a study that they conducted where medical students were put in a weeklong acting workshop dedicated to honing

skills such as “[A] performance sensibility that ensures the delivery of a good story, otherwise known as stage presence” and “[T]he cognitive capacity and flexibility needed to evaluate and acquire reliable clinical information” among other useful techniques [44]. This study focused more on the ability to publicly speak and found that the acting techniques improved the participant’s storytelling skills, ability to deliver patient histories, and competence in presenting publicly [44]. However, this study was conducted as a self-review and not as an objective quantitative analysis of the skills acquired from such techniques. However, Dr. Hammer’s study along with the two studies conducted by Dr. Macneill show strong evidence for the benefits of performance-based training for doctors, displaying that a multitude of skills can be acquired from practicing techniques taught to actors in academia.

The research conducted in previous studies has provided compelling evidence on the effectiveness of performance-based training in various fields. However, despite the data that has been collected, there is still a notable gap in the literature when it comes to examining the application of performance-based training within the medical profession and measuring these skills in a quantitative manner. While some studies have explored the use of simulated scenarios in medical education, there is limited research specifically on how much acting training can be of use in this context. Despite this gap, the findings presented in the existing research on the topic are promising. The studies that have previously been described have shown that performance-based training can enhance a wide range of skills that are highly relevant to medical practice, including improvisation, voicework, and emotional regulation. These skills are essential for healthcare professionals to effectively engage with patients, provide quality care, and achieve optimal outcomes. Furthermore, the potential benefits of performance-based training in the medical field are not limited only to the development of interpersonal skills as described here.

Given the promising results of previous studies, there is a clear need for further research on this topic. Quantitative studies could be conducted to provide more rigorous evidence on the relationship between performance-based training and the acquisition of performative skills relevant to medical practice. Additionally, discussions within the medical education community could be encouraged to explore the potential benefits of incorporating performance-based training into existing curricula. With more research and dialogue, the use of acting training in medical education could become a valuable tool in preparing healthcare professionals to provide the highest level of care to their patients.

Chapter 3:

After covering the benefits of theatrical education to the medical field, one is left to wonder how to implement changes in the education system set up for preparing doctors to provide care in order to see these benefits. As of recently, the incorporation of theatrical education into medical training is a topic of increasing interest and importance as seen by the multitude of citations to studies that have already been presented. However, so far, there have only been examples of change on the level of adding a course or a seminar for a maximum duration of 2 weeks. However, greater change may be necessary in order to see greater benefits from these programs. As the field of medicine continues to evolve, so do the demands placed on healthcare professionals. And so, to best serve this community's need, it is important to look at the options presented and see which is the best in terms of time, resources, and efficacy. There are some critics to this addition of work to the medical school curriculum, and a look at these critiques can offer good insight into where improvements can be made. Therefore, this chapter is devoted to looking at the different critiques of adding this type of curriculum and then move into the next steps that should be taken. By carefully considering the options available and investing in the most effective training programs, we can help ensure that the next generation of medical professionals has the skills and knowledge they need to succeed in a rapidly changing healthcare landscape.

In order to truly understand the benefits and the outcomes of implementing theatrical curriculum into medical school, there must first be an analysis of the critiques to implementing this type of education upon medical students. Since this is a different theory of educating medical students than what is currently accepted, there are bound to be those who question the legitimacy

and efficacy of these techniques. While some critiques have already been mentioned in reference to the other skills previously mentioned, there are still some critiques which can be addressed.

The first of these critiques is that there is simply not enough time for medical students to be added to classes that have no pertinence to science or medicine. The curriculum that medical students face during their training is already infamous for its difficulty, and adding more to this curriculum can be seen as an unnecessary burden. However, with the studies that have been shown so far, whenever students are asked whether or not their seminar was useful or not, most students tended to respond positively. This point is exemplified by a study conducted by Dr. Koufopoulos et al. that entailed a four-week course that included devising scenes, discussions about the scenes, and a questionnaire to gauge the efficacy of this training. This study concluded that this longer seminar was a success at facilitating acting curriculum inside of medical school, but more importantly received praise "for the adequacy of time dedicated for tutoring, questions, and discussion" and commented on the course load on the students being "neither characterized as exhausting nor too short [45]." This positive feedback is critical to the understanding that students do not see this classwork as a time burden, but rather a good learning experience for skills that can be useful in their work as a medical professional.

While this seminar was not as long as other blocks on the medical school curriculum, the fact that there was significant positivity directed towards this type of curriculum by the students shows that there is not only little burden placed on a medical student by theatrical curriculum, but that this curriculum can be so positively reviewed that students find it "absolutely necessary to attend such an event and would also recommend it to other students [45]." Some students even find that the programs that are given are too short, with one student in a study conducted by Dr. Cho and Dr. Roger finding "that if the training had been longer, she would have been able to

make a lot more progress, given what she had accomplished in just seven workshops [48].” These findings indicate that the medical students that would be burdened by this extra work not only find this work useful, but also see the benefit of this work and wish to increase the time spent on this type of work.

Another critique surrounding the implementation of theatrical education in medical school is the idea of the trustworthiness of the teachers that would instruct such a curriculum. This critique is brought up in a previously discussed paper by Dr. Shapiro et al. in chapter two and describes how some in the medical field may think about reliance on non-physicians. In this discussion, Dr. Shapiro et al. outlines that “[T]here is a widespread perception that nonphysicians do not comprehend clinical realities. Students object that humanities instructors lack professional training or experience in medicine. They aren’t doctors, and only doctors can train medical students in clinical skills. Thus, to many students, medical humanities teachers seem to talk the talk without walking the walk [40].” Firstly, it is important to acknowledge that medical humanities instructors may not have the same professional training or experience in medicine as doctors do. However, this does not mean that they are incapable of teaching medical students’ important skills such as communication, empathy, and effective teamwork, which allows them to bring a unique perspective and set of skills to the classroom. While the educators that teach this curriculum may not have firsthand experience with the world of healthcare from the perspective of a medical professional, the skills that they teach are applicable to many situations, as outlined in both chapters one and two. By taking the education given by the theatre classes, medical students will be able to take what they learned from these classes and use them as tools in their clinical experience This means that medical humanities teachers can support medical students in the acquisition of clinical skills, even if they do not have professional training or experience in

medicine. This combined with the fact that the coursework would be structured by educators from both the theatrical realm and the medical field would ensure that the material is not only as beneficial as possible, but also contains relevant clinical and medical information.

Another critique is the idea that medical students will reject theatrical work due to its introspective nature. This concept was also proposed in the paper written by Dr. Shapiro et al. and claims that "Humanities-based exercises frequently ask students to reflect on their own values, attitudes, and behavior, as well as on issues of subjectivity, multiple truths, and ambiguity through the filters of poems, stories, artwork, or music [40]." It is because of this introspection that a study carried out by Dr. Wear, professor of Family and Community Medicine at Northeast Ohio Medical University, found out that students believed qualities of compassion, altruism, and respect for a patient are already formed characteristics and are unable to be changed by humanities courses [47]. In this theory, by the time that medical students have come to medical school to attain their medical training, they have already experienced life such that their philosophies pertaining to these characteristics will have been formed and solidified. Having been made rigid through their own experiences, teachings that will improve the skills involved with communicating empathetically and performing one's duties compassionately will not be effective. However, in reference to this critique, it should be noted that all of the studies noted so far referencing questionnaires for students after being educated in theatrical techniques have found that students see improvement in such skills after the training. More specifically, with the longer training session carried out by Dr. Koufopoulos et al. found that students saw that "the acquired knowledge would sustain a long-standing effect [45]." This idea is deconstructed even more when understanding that these skills may not change the philosophy of the students and make them actually more compassionate as a person, but rather be able to be perceived as

more empathetic by those who need such actions. This is the basis of acting and performing on stage, as those playing villains are not actually evil and those playing heroes may not be as heroic as their character. However, the performance that the actors put on for these characters is convincing enough to have people believe that the person on stage has the characteristics that they are trying to show. Therefore, it can be shown that these skills can improve the ability of a medical professional to be empathetic or perform their care in such a way that their patient perceives compassion.

The final critique that will be mentioned is the idea that the theatrical classes would be elective classes and therefore should not be required meaning that many students might not see interest in taking these courses. As outlined in Dr. Shapiro's paper, this critique is the manifestation of the irrelevancy critique of the humanities courses, stating that "[B]ecause medical humanities are a domain outside the basic and clinical sciences, some students believe that one must have an interest in or affinity for them, a bit like the elective system in the final year of medical school [40]." This proposal may be one that initially comes to mind when initiating conversations surrounding integrating theatrical education into medical school; however, this optional focus on skills that many medical professionals will find necessary is more reminiscent of the lack of commitment to medical educators in teaching things other than just the science behind becoming a doctor. As Dr. Shapiro et al. states, "[T]he key emphasis, however, should be on systemic application: all these suggestions require buy-in from the leadership on basic science and clinical curriculum committees to prevent the sporadic, in-the-margins enactment of humanities inquiry, which often gives such inquiry its irrelevant, frivolous, why-are-you-wasting-my-time feel for so many students [40]." By integrating education focused on communication skills and performance enhancement as a regular part of the curriculum of

medical education rather than an elective, the benefits seen will not only be that students will see the commitment of the administration to the development of these skills but also the greater ability to teach these skills to a broader range of students. Having this type of education as a requirement rather than an elective will train all those wishing to become a medical professional, not just those who seek out these courses as an elective part of their education.

What remains to be answered, however, is the question of what theatrical education in medical school can look like. Considering all of the benefits of this education while keeping in mind the critiques and the responses to these critiques, it is important to look to the future of medical education in order to see what type of program is feasible. The programs that have been presented so far offer a window into what theatrical instruction in medical school looks like today, and seeing the benefits of these we can understand how to move forward with this type of training. However, the examples given are not the only examples of education in theatre that are currently being taught in medical school. Some others include Columbia Medical School, which offered a 120-minute class dedicated to improving argumentation skills and found not only an improvement of these skills, but also "students commented that 'such ethical questions are rarely asked in our social or educational environments.' Indeed, some of them said: 'this is the first time I have been asked this question,' 'nobody has ever asked me this question,' and 'teachers in school, and even those at the university, rarely ask such questions' [49]." Another example is a study conducted by Dr. Nordström et al. that implemented an exercise based on the work of Augusto Boal, a Brazilian dramatist who founded the Forum Theatre among other theatrical practices. The Forum Theatre was created by Augusto Boal as an art form where "actors perform a short scene based on an event involving oppression" along with spectators being "encouraged to suggest and enact solutions to the problem in the scene [46]." In Dr. Nordström's study,

exercises from the Forum Theatre, including an exercise called the Marathon death where medical students “take on the role of medical doctors and relay the death notification to the next of kin without paraphrasing” to a teacher which is videotaped and then analyzed [49]. These exercises were done in order to increase student’s abilities in delivering death notifications. This study concluded that the exercise was a “useful pedagogical tool that enables students to practice delivering death notification” and that it allowed for the “ability to practice under realistic conditions contributes to reinforce students in preparation for their future professional role [49].”

These and all the other studies seen so far show a progression in the medical field towards education that involves theatrical education, and the general body of evidence pertaining to this matter shows “positive or promising results in changing student feedback, attitude, reducing anxiety, and enhancing learning experiences” from the education they are currently receiving [51]. However, this is not the end of the progression of theatre in medicine. As has been mentioned before, so far, most studies make use of seminars that are optional for medical students and the basis of the program’s success is determined by surveying the students afterwards on how they feel the seminar went and the effects that they feel they received from this process. While these studies offer great insight into the opportunities theatrical education offers, if greater measures are to be taken in order to fully integrate theatre and medicine, studies with more quantitative data will be necessary.

Therefore, the next steps in this process should be two-fold. The first of these steps should be to conduct studies that measure quantifiable skills that are being increased by the training the students are receiving. If the students say that these seminars are affecting their ability to communicate and perform, these studies would be able to present those changes in a manner that scientists and medical professionals can appreciate. More specifically, these studies

should focus on quantitatively analyzing the performative benefits of theatrical education towards medical professionals, as there is more quantitative evidence surrounding communication and empathy that comes with theatrical training than studies on performative benefits. However, increasing the body of evidence that contains quantitative evidence on any of the aspects spoken of would be useful as it cannot hurt to have more evidence promoting this type of education. In order to gain this quantitative information, the observer of the change in skill must come from outside of the student or teachers of these courses. Rather, a third person should be an objective measure of these skills gained by these courses. In order to measure these skills, a scoring system must be put in place that is both objective and efficient. While each study will have to gauge their measurements based on the type of study being conducted and the skills that are being measured, coordination and research must be done in order to understand how each skill is measured. Since the skills being talked about are qualitative skills and can be subject to subjectivity in how they can be measured, this is a critical step in creating a study that accurately represents the data.

To begin this discussion surrounding how to quantitatively measure the skills that theatrical education can offer, there must first be a standard way of measuring communication skills. As communication skills are a subjective skill, it is difficult to find ways to quantify the change in this skill through education in a systematic manner. However, Dr. Valette, professor of French and director of the Language Laboratory at Boston College, offers a method to quantitatively measure the change in this skill in a journal article titled “Developing and Evaluating Communication Skills in the Classroom.” In this article, Dr. Valette first describes a taxonomy to the different stages of learning how to communicate. The first of these stages is mechanical skills, which is merely the ability to speak the words for a certain idea, followed by

knowledge, which is the increase in "vocabulary, sentence patterns, and grammatical rules [51]." The next stage is known as transfer, which is the state "at which the student manipulates these 'bits and pieces' of language in new ways, under the guidance of the teacher of the learning material [51]." Finally, the last stage is mastery of communication, in which the student is able to communicate their idea using the new skills that have been learned [51]. The tests of this study, therefore, are designed to make sure the student has reached the level of communication mastery by the end of the program, and the way that this is done is through an interview session at the end of the term. In this interview session, the performance is "is rated on a scale of 1 to 5 in areas comprehensibility, ability to respond to questions, and fluency, as appropriateness of vocabulary, accuracy in use of structure, and pronunciation [51]." As such, the teacher is able to grade the students regularly on their improvement in communication, and therefore turn a qualitative skill into a quantitative measurement. While Dr. Valette describes her program as centering more around the field of linguistics, this method can be adapted to fit in with education that will improve communication within the medical field. In this way, medical schools can systematically check up on and improve the communication skills of their students in a method that is reminiscent of other types of education within the medical field.

The next part of this discussion revolves around finding a standardized way to measure empathy. While there is a lot of literature surrounding empathetic testing for those with disabilities such as autism and neurodivergent diagnoses, there is less research conducted to measure normal adult's ability to express empathy. However, a study conducted by Dr. Konrath et al. resulted in the development of a test that they named the SITES test. The SITES test, which is short for Single Item Trait Empathy Scale, is designed to be "positively correlated with other measures of empathy, self-esteem, subjective well-being, and agreeableness [52]." This test is

much shorter than other empathy based tests and is therefore efficient for time management and for easy access to scores after taking the test. While not much was given on what the test comprises, the study conducted found that the SITES test "correlated positively with the most widely used measure of empathy, the Interpersonal Reactivity Index," which is a much longer test that requires more time and money [52]. The researchers for the SITES test even include the fact that their test is useful for "exploratory research settings and in situations in which participant time and question quantity are under strain" which is useful for studies such as ones that are being suggested, where medical student's time is involved, and empathy is being singled out and observed [52]. Overall, this study may be useful to take before and after the education that is designed to increase empathetic communication as to see if the empathy perceived by the test increases after the education. In this way, a quantitative measure of a medical student's empathy can be measured in a way that can be studied and observed.

Another topic of research necessary to expand upon in upcoming research is the performance skills learned through theatrical training. Performance skills in terms of presentation skills are also a qualitative skill, so a standardized system to measure the increase of this skill is necessary. In response to this, a study conducted by Dr. Hughes and Dr. Large focuses on increasing oral presentation skills. In this process, teachers and tutors of this skill would teach the skills for each lesson and then assign presentations for the students to complete, and after giving the students time to prepare, a presentation would be given by the students to demonstrate the ability to use these skills [53]. Then, the tutors and a member of the academic staff would develop "criteria for a good presentation," at which point an assessment is given and scores are distributed back [53]. Criteria for the presentation consisted of questions such as "Was the subject adequately introduced? Were the findings explained cogently? Was the talk suitably

completed? Was it delivered without being read? Were any conclusions justifiably drawn?" along with many others [53]. After a multitude of successive rounds of this process, the students would put together all of their skills for a "10-12 minute presentation to an audience comprising their peers (35-45 students), postgraduate students, departmental staff and some members of industrial partners associated with the department" which is followed by "a 3-5 minute period of questions from the audience [53]." This type of work not only is graded by the teachers of the class, but rather part of the grade comes from those participating in the audience, as their perception of the presentation is crucial to understanding if the skills that were taught actually reflect well when spoken to an audience. Marks were then quantified onto a chart to observe the change in presentation skills at the start of the process versus the end. By the end of the process, the researchers found that their method of testing and quantifying the data was "a more discriminating and useful assessment of abilities" in reference to oral presentation skills [53]. Therefore, a similar model can be implemented within the medical school environment in order to quantitatively measure the increase in ability to perform in a presentation setting.

The final measurement that must be quantified is the skill of handling stress and stress management. As has been discussed, there are many occasions where doctors will face stressors in their career and handling that stress can be taught using theatrical techniques, but the question remains how to measure if these methods are useful when applied in the setting described in this discussion. However, there is a lot of research surrounding measuring perceived stress by a person in order to measure their stress levels. This test is described as "a 14-item measure of the degree to which situations in one's life are appraised as stressful" that was designed to measure "the degree to which respondents found their lives unpredictable, uncontrollable, and overloading [54]." The fourteen questions that comprise this test consist of "7 positive items and

7 negative items rated on a 5-point Likert scale" and can be measured by the faculty that teach the courses or a third person reviewer to make it more objective for a study. Despite being introduced in 1983, this test continues to be a commonly preferred option for gaining insight into how various circumstances impact our emotions and perceived stress levels [55]. This test has "demonstrated satisfactory test-retest reliability when its first and second administrations were separated by between 2 days and 4 weeks [55]." With this in mind, intervals for this test when administered in medical school should be within this time frame, preferably closer to the four-week intervals as this will give the most time to learn the skills taught by the theatrical education. This test is useful in this aspect of this discussion as it is both short and effective at measuring what it is testing, meaning that much of the medical student's time would not be needed to put towards this test and results could be measured by most people on the faculty. When analyzing the data from these tests, if perceived stress is noted to be decreasing over the course of the education, this can show that the skills being taught are being practically applied. Therefore, if studies were conducted this way, more information can be achieved in reference to quantitatively measuring the ability to handle stress.

Now that the discussion on how to set up experiments to test the efficacy of these methods of education has been explored, the next step in progression in order to see how much students can benefit from this education must be explored. The preparation of how to quantify the data received will help to keep the idea of theatrical education in medicine moving forward, however the length and type of education is another aspect of progression that must be identified. As of now, the coursework for theatrical education is not one that is collectively accepted in medical school education. In order to progress towards a system that includes more education in communication and performance, common ideologies surrounding the education must be found

and expanded upon in order to create a system in which medical schools can work their curriculum around. Therefore, investigating how much time should be spent on these programs, the way these classes would be assessed, and the way this curriculum would be presented to medical students is the next step in addressing theatrical education in medical school.

As previously discussed, the studies discussed concerning education for performance and communication have been around four weeks long. In order to see better results, however, it is important to see if longer periods of study on this material will benefit students in attaining more and longer lasting skills. For example, having these classes go for six to eight weeks during the first or second year may prove useful for a multitude of reasons that have been discussed. However, these years are considered to be the most stressful due to the "transition from college to medical school (i.e., increased workload)" in the first year and "a more competitive/less supportive school environment" in the second year [56]. However, when increasing the duration of time, the material and skills that are being taught do not change. This means that the material is more spread out giving the students more time to spend on improving their skills rather than cramming in work along with other classes. Therefore, increasing the amount of time that the course takes may also reduce stressful factors of this workload on the medical students. This possibility, therefore, should be explored in future studies.

Another methodology that should be studied is the grading system that the theatrical education should be assessed by. So far, the studies have been mostly survey based and do not add to the medical student's curriculum, however, if this type of education is to be incorporated into medical schools on a larger scale, a grading methodology must be implemented in order to unify curriculums across schools. What this means is that making theatrical education more official requires more than just an observation of the feelings of the students, but rather a way for

administration of the medical school to assess the knowledge gained by the medical students in a systematic way. However, it is hard to look at the qualitative skills of performance and communication in a way that is graded on a percentage-based scale, as the objective of this type of material is improvement and not perfection. Therefore, the idea of making grades for these classes either a passing grade or a failing grade can be introduced into the system. As of now, there are over seventy-nine medical schools that use pass/fail grading systems for their pre-clinical studies, including Harvard, Stanford, UCLA, and Johns Hopkins [57]. This means that the introduction of pass/fail classes is not a new idea to medical school education. By making the classes pass or fail, students have relief from the pressure to get a certain grade to compete with other medical students while also learning the material, relieving the academic workload of these classes from the students. However, one may argue that making a class pass/fail means that the class does not matter, and students may not take the material seriously. It would be important to note for future research that the passing grade for this class should not be taken lightly and that medical administrators should be overlooking the grading criteria in order to ensure that medical school standards are being met.

Finally, the issue of presentation of this coursework to the medical students must be addressed. As previously mentioned, the studies consist of optional seminars that students choose to participate in, however, if this type of education is to be implemented on a larger scale, this coursework must be implemented into the curriculums of the medical schools as part of the requirements to graduate. Some may argue that the coursework should be at most an elective class that those interested can choose, however, as demonstrated by the evidence surrounding the increase of medical outcomes after training in communication and performance, it is imperative that the medical profession begins to advance in education of this type in a manner that is similar

to the standard pre-clinical education. Studies conducted on medical schools that have begun to incorporate this type of education into their curriculum as a requirement have shown that students significantly improved their "overall communications competence as well as their skills in relationship building, organization and time management, patient assessment, and negotiation and shared decision making—tasks that are important to positive patient outcomes [58]." Therefore, operating under similar conditions as the schools that have begun to progress in this type of education is integral to improving the current medical education system currently in place.

As science is an ever changing and growing field, those who study this field are always trying to increase their knowledge within this discipline while also improving the systems that are currently in place. Medical schools, as part of the scientific community that is in a special and distinct role in society due to their integral part in caring for the public, are often under constant pressure to prepare the future of medical professionals in the best way possible. While the scientific aspect of medicine is always advancing, the community aspect of being a doctor is often overlooked in education due to the fact that these skills were not part of standards that have been long held traditions of medical school curriculum. However, as the research that has been discussed so far and the research that has been suggested shows a benefit to theatrical education, it is part of the natural course to then pursue these facets of medical education. By exploring these methods discussed here along with all other benefits that have yet to be discovered, medicine can keep improving the lives of the people that seek its help and sustain a society in a healthier and happier manner.

Conclusion:

As stated in the introduction of this discussion, the medical field has recently come under intense scrutiny due to the global pandemic, with hospitals and doctors being put to the test. The system in place is already under strain due to a doctor shortage, which limits the care that many patients can access. Improving the medical system's efficiency and patient care starts with understanding medical education, a crucial focal point for becoming a doctor. However, when tracing medical practice to its educational roots the system has not experienced significant changes since the 1960s despite major scientific advances and changes. In recent years, however, the idea of theatrical education in medical school has emerged as a new tool for teaching medical skills and knowledge, which can help students develop critical thinking, communication, teamwork, empathy, and understanding towards patients. While this type of education has not been implemented unanimously by medical school curriculums around the country, it has been tested at multiple schools as shown in the third chapter. These tests have shown that theatre education can be integrated efficiently into medical school. Therefore, the current research outlined in this thesis into the current studies surrounding the incorporation of theatrical education into medical school curriculum are crucial for identifying ways to improve the medical education system and ultimately the medical field's ability to treat society's ailments.

To review the ideas covered in this thesis, the idea of communication must first be revisited. Effective communication is essential in the medical profession, as it plays a critical role in building trust, establishing rapport, and facilitating shared decision-making between healthcare providers and their patients. Additionally, strong communication skills are necessary when working in interdisciplinary teams, as healthcare providers must be able to collaborate

effectively and share information in order to provide the best possible care. Medical professionals who communicate effectively are more likely to establish a strong rapport with their patients, which can result in better health outcomes. In addition, effective communication among healthcare professionals can lead to a more cohesive team, which can ultimately result in improved patient care and outcomes. These ideas were not only displayed through many different studies, but also furthered by the expansion into the idea of theatrical education in medical school. The studies that were chosen to represent this topic highlighted the importance of communication skills in all of the ways previously outlined in order to close the communication gap between doctors and those they communicate with. Communication barriers can be more than just the difference of language between patients and their doctor, as the studies presented have shown. The next step in this process was to show that theatrical education worked to improve the communication skills, as shown by the multitude of studies that were conducted showing that doctors who received training in communication were able to increase their ability to communicate in an empathetic and informative way. When combined with the fact that theatrical education trains actors to effectively communicate, it came as no surprise when studies specifically showed that theatrical education had a direct correlation to the ability of a medical student to communicate better, showing the possible benefits of this type of education in the realm of communication.

However, communication was not the only skill that was explored in this discussion. Performative skills in the medical profession were also observed in how the related to theatrical education. As was explained previously, it is commonly known that those who train to become professional actors will have to take a multitude of acting, speech/voice, and physical expression classes throughout their educational career. While each school will differ with how the

curriculum is exercised, there are commonalities that are seen as necessities in order to be a viable part of the acting community, examples being the ability to step into and out of character and the ability to improvise. Improvisation is the basis for creation and performance of theatre, so it makes sense that this skill is integrated into an actor`s training in academia. Exercises to enhance not only improvisation skills but also vocal and performative skills were explained in a multitude of acting curriculum studies. These skills will not only allow an actor to perform each scene as if they have not rehearsed it many times before, but also allow for the actor to handle different stressors on the stage such as lines being skipped or technical errors. It is through these exercises among others that provide a basis for theatrical education currently. Understanding the techniques that an actor learns about performance in academia is important, but it is also important to understand what these skills teach actors outside of the theater. Improvisation is the skill in which an actor is able to work with others to setup a functioning scene without rehearsing it. While the specific techniques taught in academia pertain mainly to the ability to improvise a scene, these skills can translate to multiple different facets of life. However, the discussion at hand led to focusing on improvisation in the medical profession. By exploring the benefits of improvisation in the facets of being a doctor such as being able to handle different stressors and creating new solution in a surgery room were shown to be quite useful and therefore should be explored. Another skill that was talked about was the ability to handle one`s emotions as taught by theatrical training; however, it can be especially useful in the medical field due to the fact that it allows a person to respond to different things while still remaining professional and composed. This is important for medical professionals as they need to uphold an image towards their patients. By understanding the roles of these skills in the medical profession, the extent of the possible benefits to medical school from theatrical training becomes more evident.

After covering the benefits of theatrical education to the medical field, the discussion then diverted to the topic of how to implement changes in the education system set up for preparing doctors to provide care in order to see these benefits. However, after seeing the body of evidence prepared in this thesis, greater research and exploration may be necessary in order to see if greater benefits from these programs are possible. By carefully considering the options available and investing in the most effective training programs, we can help ensure that the next generation of medical professionals has the skills and knowledge they need to succeed in a rapidly changing healthcare landscape. The first thing that was covered to see how medical education can progress with theatrical training was to talk about some critiques that others may offer. In this part of the discussion, each of the critiques were displayed along with solutions to those possible problems. Such problems included the time it takes to teach these methods to medical students, how medical students would receive this type of education, and can this education even change certain characteristics of people. All of these critiques were kept in mind when discussing the possibility for future research conducted on this topic. The first thing that was mentioned was the idea of quantifying data on the qualitative skills that are given by theatrical education. Different methods were given for each of the qualitative skills that were mentioned to be improved by acting training. It is important to note that these are suggestions based on the leading research on how to quantify this type of data; however, studies in the future that do not use these specific tests should not be considered inept. The suggestions given are not hard rules that must be followed, but merely a guideline for what can be done. After considering these propositions for possible research, the focus then shifted to how the curriculum could look in the future for medical schools to incorporate acting training. Examples of the changes that could be implemented were presented, including longer teaching periods, pass/fail grading, and

the idea that this coursework should be mandatory in the earlier years of medical school were presented. These ideas culminate in the idea that improving medical education is possible through theatrical education; and the possibilities of this type of education can be far reaching and should be further researched.

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