HIGH SCHOOL EDITION
Journal of Student Research
Volume 13 Issue 1 (2024)

Aspects of Palliative Care in Medical TV Dramas and A Look into Its Teaching Capabilities

Sydney Engel[1] and Robin Solomon[#]

[1]Leonardtown High School, USA
[#]Advisor

ABSTRACT

Doctors often feel extreme negative emotions when providing palliative care and experiencing a patient's death. Their education leaves them unprepared for dealing with their various feelings which can directly lead to death anxiety and burnout. Doctor's lack of coping in these situations can significantly decrease their feelings of happiness towards their life, career, and overall patient care. Therefore, using a modified exploratory qualitative research approach that distributed a survey to Maryland medical students, an auxiliary form of education was identified to fill the gap in doctor's training. This study sought to find if modern medical dramas could teach medical students about the personal emotions associated with palliative care and the importance of developing healthy coping mechanisms. Through the research the shows "House MD" and "Private Practice" have the most accurate representation of death, the emotions involved, and healthy coping mechanisms. Meaning, that the two shows can be used in medical education to enrich students' learning on the personal effects of palliative care and how to cope. Furthermore, this training can potentially lead to the decrease of death anxiety and burnout in the medical field. Thus, creating an environment where expressing emotion is destigmatized and allows doctors to provide the highest quality patient care.

Introduction

This research focuses on the combined topic of the emotional aspect of palliative care (PC) and the teaching abilities of medical dramas. The study seeks to develop a solution to the missing education for medical students. More specifically, students are not totally satisfied with their medical education when it is solely technical science; in other words, when it lacks philosophical discussion (Shelp et al. 1981). Medical schools focus on patient centric principles but should develop more doctor focused teaching principles (Hafferty et al. 1998). More importantly, medical students do not receive adequate palliative care training that prepares them for their personal emotions associated with end-of-life care resulting in burnt out doctors with death anxiety (Redinbach et al. 2003).

Palliative care is end of life care administered by a doctor that focuses on care, comfort, and control of a patient's death (Quinn-Lee et al. 2014). Doctors who trained in palliative care earlier were shown to have more developed communication, teamwork, professionalism, and patient centered medicine skills, compared to peers who were exposed to palliative care training later (Crawford et al. 2015). Also, earlier palliative care training can lead to increased knowledge of patient needs, increased quality of care and treatment of dying patients (Crawford et al. 2015).

Burnout is a common result from avoiding coping with the emotions experienced after a patient's death, which is defined as emotional exhaustion and detachment from work that decreases one's overall life satisfaction, personal accomplishments, and physical health (Quinn-Lee et al. 2014). Death anxiety is another consequence of losing a patient, which affects the doctor's ability to work, care for patients, and makes them less likely to cope (Thiemann et al. 2015). Coping is defined as the behavioral and cognitive efforts by an individual

to alleviate and minimize stress from traumatic situations (Semenova 2016). Coping is an integral part of being a doctor and it is important for students to be aware of their own feelings and prioritize themselves in their work (Barclay et al. 2015).

Through medical ethics education, students can define their responsibility, professionalism, and authority as a doctor, as well as their identity and how they practice medicine (Shelp et al. 1981). Therefore, improving the ethics of medical students may be able to prepare themselves for the emotional aspect of palliative care. Ethics education could stem from viewing medical dramas since they include more in-depth perspectives on bioethics topics (Fariña et al. 2009). More specifically this study will be focusing on the possible ability of medical dramas to expose Maryland medical students to healthy coping mechanisms to reduce the number of doctors with burnout and death anxiety.

Literature Review

To understand this study's alignment with other works, it is important to look at existing research on experiencing death as a medical professional and opportunities to improve palliative care training. Medical occupations deal with a lot more deaths than an average person (Thiemann et al. 2015). In fact, a doctor's first year at a hospital care for an average of 40 patients who die and 120 who receive close to end of life care (Barclay et al. 2015). In hospital emergency departments, they are responsible for treating thousands of patients where on average they have 1,361 deaths annually (Rassin et al. 2013). Studies have been conducted to determine the effects of experiencing elevated levels of death. In the medical field, doctors often avoid facing their feelings when their patients pass away and may see themselves as unworthy of having emotions leading to withdrawal from their responsibilities. (Black et al. 1989; Ho et al. 2020). Doctors are mostly met with negative emotions like shock, confusion, sadness, guilt, frustration, helplessness, grief, and anger (Fallowfield et al. 2004; Semenova et al. 2016; Ho et al. 2020). The emotional intensity of the job is an incredibly challenging aspect of palliative care. Doctor's emotions after a patient loss are associated with elevated levels of stress, burnout, and death anxiety (Quinn-Lee et al. 2014; Semenova et al. 2016: Ofri 2013). These effects are especially high among doctors due to the dominating opinions that doctors must always suppress their feelings; in fact, those who suppress their emotions are more likely to develop depression and burnout compared to those who engage their feelings (Kerasidou, 2016).

Burnout and death anxiety are alarming symptoms after experiencing loss that severely diminish the quality of care that healthcare workers provide and result in significantly more negative responses to death like extreme anxiety and depression (Quinn-Lee et al. 2014; Thiemann et al. 2015). These feelings have been linked to origins in medical school and are common in young doctors like residents and interns (Dyrbye et al. 2006). Other works concur that exposure to multiple losses, excessive workloads, and difficulties around one's own coping strategies are the greatest factors contributing to burnout. (Slocum-Gori et al. 2013).

Due to Slocum-Gori et al.'s work, training doctors in healthy coping strategies may minimize burnout and death anxiety. The most effective coping strategies are emotional support from their same-age peers and sometimes their attendings (Redinbaugh et al. 2003). Students with coping strategies were shown to have improved management of their sadness and helplessness, where they displayed greater empathy and confidence (Ho et al. 2020). However, a major gap in education of young doctors is the lack of teaching students the important skills for dealing with death and the development of effective coping skills (Redinbaugh et al. 2003). In Price et al.'s study (2006), healthcare professionals reported being inadequately prepared for dealing with patient death. Additionally, doctors begin their careers unaware of the personal impact of palliative care (Barclay et al. 2015). Therefore, doctors lack adequate education on the personal impact of providing palliative care. Furthermore, coping strategies are a necessary aspect of palliative care training missing from the curriculum.

Empathy and human complexity can be teachable through movie clips which promote personal reflection (Blasco et al. 2010). More specifically, the medical television dramas "Grey's Anatomy" and "House MD"

can affect medical students' behaviors regarding bioethics and facilitate a conversation of opinions and perspectives (Czarny et al. 2008). An open discussion of morality and ethics will be able to provide medical students with an avenue to develop their knowledge on patient care (Shelp et al. 1981). Due to the abilities of medical dramas identified in Czarny et al. 's 2008 study, medical schools have used medical dramas to teach students about bioethical issues like patient autonomy and confidentiality. With the use of medical dramas already implemented into medical school education, students could be able to learn about the effects of death and prepare for the emotions associated with it. Hoffman (2017) found that death is often represented within medical dramas. Therefore, medical dramas might provide students with a more complex understanding of the personal impacts of palliative care, but research is required. It is hypothesized that the study will conclude that Maryland medical students are unprepared to deal with the emotional aspects of patient loss, but medical dramas could provide a rich education on the emotional impact of palliative care. Medical students would adopt important coping mechanisms from viewing medical dramas while building an open environment that is not focused on carrying shame and guilt from their experiences.

The Gap

There is little research that offers solutions for integrating more palliative care training that focuses on the doctor's own emotions. The effects of death unpreparedness in medicine is detrimental to doctors' careers and mental health. Future studies focused on avoiding death anxiety and burnout among medical students should be a priority (Barclay et al. 2015). Due to the gap in medical education regarding the minimization of death anxiety and the blatant lack of teaching healthy coping mechanisms, medical dramas could be the solution. Research is still needed to find the ways that the curriculum can improve to build support systems and reduce medical student burnout. Therefore, looking at the implications of medical dramas on building students coping strategies could revolutionize medical ethics learning and convey the importance of palliative care training. The research is guided by the question, do certain medical dramas have the capability to teach Maryland medical students about coping with the emotional toll of patient death?

Methodology

In order to explore medical dramas' capabilities to teach medical students coping abilities after patient death, I conducted modified exploratory qualitative research, a method that looks for patterns, thoughts and feelings of participants while exploring a problem that has yet to be researched (Dudovskiy, n.d). An exploratory research method explores a problem that has yet to be researched and aims to collect analyzable data that adds to previous literary discussion (Dudovskiy, n.d). Modifications of this approach include developing a conclusive argument situated around the problem while remaining open to further research.

To answer my question best, I developed a survey. After receiving research approval from an IRB board, I conducted an online survey (Table 1) which gathered qualitative and demographic data. A survey was used as the data medium. A survey allowed me to collect data that could provide a representative conclusion on a large group of people's attitudes regarding a certain topic (Blackstone 2018). Additionally, surveys are a dependable method of inquiry because they are a set of standardized questions, and such consistency is not present in interview methods of inquiry due to the conversational environment (Blackstone 2018). Due to the research question, the participant criteria required an age limit of 18 or older and currently enrolled in a Maryland medical school. This ensures that I will be able to draw a conclusion for most Maryland medical students because of the benefit of a larger sample size made possible through survey distribution (Jones et al. 2013). I chose to survey medical students because this research's goal is to avoid death anxiety and burnout, therefore requiring preventative measures of coping mechanisms that begin in medical school rather than focusing on lessening the effects experienced after providing palliative care. Therefore, the survey was the most effective

way to gather data that answers my question. A copy of the survey that was distributed to Maryland Medical students is listed below.

Table 1. Online Survey Questions

Question	Answer Choices
Q1: Are you over 18?	Yes No
Q2: Have you read the Informed Consent and agree to take my survey?	Yes, I agree No, I do not agree
Q3: List Preferred Gender	Open-ended
Q4: State Your Age	Open-ended
Q5: State The Medical School You Currently Attend	Open-ended
Q6: Which of the following shows have you seen?	Grey's Anatomy The Good Doctor House M.D. Chicago Med New Amsterdam The Resident ER Scrubs Nip/Tuck Private Practice Other (please specify below)
Q7: If you chose "Other" specify in this box	Open-ended
Q8: Shows realistically represent the situations, diagnoses, and/or procedures' outcomes in a hospital.	Strongly Disagree Disagree Neutral Agree Strongly Agree
Q9: Shows exaggerate the situations, diagnoses, and/or procedures' outcome in a hospital.	Strongly Disagree Disagree Neutral Agree Strongly Agree
Q10: The fictional doctors are good role models.	Strongly Disagree

	Disagree Neutral Agree Strongly Agree
Q11: How often do shows depict death and patients dying?	Never Occasionally Sometimes Often Always
Q12: Patient death in tv shows represents the amount of death in real life.	Yes No Somewhat
Q13: TV depicts doctors' emotional responses to death.	Never Occasionally Sometimes Often Always
Q14: The doctors responded composed and with limited emotions.	Never Occasionally Sometimes Often Always
Q15: The doctors displayed intense emotional distraught.	Never Occasionally Sometimes Often Always
Q16: The fictional doctors sought help after the loss of a patient with a friend, professional, partner, etc.	Never Occasionally Sometimes Often Always They didn't need help
Q17: I feel prepared to deal with the death of patients or providing devastating diagnosis.	Strongly Disagree Disagree Neutral Agree Strongly Agree

Q18: Is patient dying/death part of your medical school education/curriculum.	Yes No Somewhat
Q19: My curriculum includes suggestions for dealing with patient death.	Clearly does not Mostly does not Somewhat Mostly does Clearly does
Q20: Thank you for completing my survey. Is there anything you wish to tell me about medical television shows, death and dying in this shows/real life, your bioethics curriculum, etc.	Open-ended

Survey Distribution

None of the participants were provided compensation or given incentives to take the survey. Every participant took the same survey and was all given the same survey format. All medical students were anonymous to protect their privacy, forcing me to trust that all participants told the truth. During participation, they were asked to answer all the questions but not required to. The only required questions were the first, second, and fifth questions. These questions ensured that they were eligible and understood the informed consent. The fifth question was phrased so that the exact survey could be replicated at other medical schools. Most of the questions limited the responses to a Likert scale. The Likert scale represents an equidistant interval where, for example, the difference in attitude between disagree to neutral is the same distance from neutral to agree or agree to strongly agree (Joshi et al. 2015). I chose to limit the answers that could be provided to a likert scale because it is the best way to quantify the abstract like feelings, emotions, and opinions in the simplest way for a survey participant which can then be used to reach a conclusion (Garland 1991).

To grasp a higher understanding of my research, I contacted a mentor, Alan Regenberg MBE. He is an Associate Faculty, Director of Outreach & Research Support at Johns Hopkins Berman Institute of Bioethics. He offered advice during the method process that led up to the research's IRB approval. He guided me during the creation of my survey and offered constructive ideas on formatting and asking questions that best aligned with the research question. Additionally, his connections with Johns Hopkins provided me with an outlet of survey distribution. It was published in a Hopkins Medical Student club as well as the listserv, a mass email, for all Hopkins medical students. The period of survey participation began on December 8, 2021, and ended on February 1, 2022.

Analysis

To find meaning in the data, I divided the results into two categories, medical students' data, and television show data. The responses to the medical school aspect questions were analyzed based on age. I found the average age of each response for these types of questions. The average age of the responses was determined when topics were introduced to the students. For example, older students answering in affirmative to these questions while younger answering negatively would show that the topic of death is eventually introduced to medical students. Similarly, for questions about being prepared for death, its responses were analyzed based on age to

determine whether older students can get more comfortable with death as they gain emotional maturity and progress through medical school.

For the remaining questions asking about the contents of the medical dramas, the responses were analyzed per the four most popular televisions shows. The analysis demanded that each response corresponded to the medical drama, or all dramas that the participant watched. Therefore, the answer was considered applicable for all the shows the students listed. This specific analysis was done for the four most popular television shows and provided an in-depth exploration of each of the four medical dramas instead of a generalization of medical dramas. After dissecting the responses' alignment with the medical dramas, the show with the best statistics on representation of death, depictions of emotional reactions, coping abilities of doctors, and role models provided a conclusion for this research. Finally, the last question of the survey is an open-ended question where the answers were divided based on the main idea of the response provided, then grouped with similar answers, and summarized.

Results

Medical Students' Data

The online survey received 69 responses from medical students at two different Maryland medical schools. Of these participants, 68 of them responded to the demographic questions. The ages of the participants ranged from 22-37. Of the 69 participants, 67 of them reported the shows that they have seen (Figure 1). Overall, the most watched television shows among medical students were House MD, 74.6%, Grey's Anatomy, 73.1%, Scrubs, 64.2%, and Private Practice, 28.4%.

To further define the individual medical students' experiences with death and their attitudes toward the subject, questions were asked about their curriculum. It was found that 48% of students have only or not at all learned about patients' death in their medical school curriculum. Additionally, most of the Maryland medical students, 64.7%, has a medical school curriculum that clearly does not or only includes suggestions for dealing with patient death. As a result of the curriculum, 43.4% of the survey participants disagree or strongly disagree about being able to deal with patient death and providing devastating diagnosis. Whereas only 30.4% agree or strongly agree with the previous statement. With consideration of the young average ages of the participants, it is likely that there are a few first-year medical students who have not yet reached their end-of-life care education. Responses about a medical school curriculum containing education about death regarding age, did identify a more positive trend with older ages (Table 2). Since the ages between the responses were roughly one year apart it can be assumed that the progression of medical education will eventually include some information about patient death. To find any connection to maturity and preparedness for death, age of responses was analyzed (Table 3), which found that age or progression through medical school had little to no effect. Additionally, age analysis of Q19 shows that age has little to no effect on the responses, so it can be assumed that Maryland medical school does not include suggestions for dealing with death (Table 4).

Table 2. Responses to Q18: Is patient dying/death part of your medical school education/curriculum, based on age of respondents

Responses	Percent	Age Mean	Age Mode
No	16.2	24.5	25
Somewhat	32.4%	25.1	25

Yes	51.5%	25.9	26

Table 3. Responses to Q17: I feel prepared to deal with the death of patients or providing devastating diagnosis, based on age of respondents

Responses	Percent	Age Mean	Age Mode
Strongly Agree	7.2%	24.8	24, 25
Agree	23.2%	25.8	26
Neutral	26.1%	26.1	26, 28
Disagree	33.3%	24.7	23, 25, 27
Strongly Disagree	10.1%	25	25

Table 4. Responses to Q19: My curriculum includes suggestions for dealing with patient death, based on age of respondents

Responses	Percent	Age Mean	Age Mode
Clearly Does	11.6%	26.1	25
Mostly Does	23.2%	25.1	25, 26
Somewhat	31.9%	25.5	26
Mostly Does Not	27.5%	25.2	24
Clearly Does Not	4.3%	25	24

Television Show Data

The consensus among the medical students was that shows exaggerate the portrayals of medical procedures. Specifically, 97% of the participants agree or strongly agree that the shows they watch exaggerate the situations, diagnoses, and/or procedures' outcomes in a hospital. Similarly, when addressing realism, albeit not as extreme, 76.8% disagree or strongly disagree that shows are realistic.

To add onto the representation of medical procedures and diagnoses, the survey asked about the depiction of patient death and its accuracy to real life. The television shows were considered too often depict patient death and dying. Of the four most watched shows, House MD and Private Practice have the most realistic portrayals of death and Private Practice show the most emotional responses from doctors after experiencing patient death (Table 5).

Table 5. The four most popular television shows portrayal of death and frequency of responses to the death.

Show	Q12: Patient death in tv shows represents the amount of death in real life.		Q13: TV depicts doctors' emotional responses to death.	
House MD	Somewhat	42%	Always/ often	44%
	No	58%	Sometimes/ Occasionally	56%
			Never	0%
Grey's Anatomy	Somewhat	30.6%	Always/ often	44.9%
	No	69.4%	Sometimes/ Occasionally	55.1%
			Never	0%
Scrubs	Somewhat	34.9%	Always/ often	46.5%
	No	65.1%	Sometimes/ Occasionally	53.5%
			Never	0%
Private Practice	Somewhat	42.1%	Always/ often	47.4%
	No	57.9%	Sometimes/ Occasionally	52.6%
			Never	0%

Along with questions that can ascertain the realism represented in television, questions about the characters were asked to discuss the representation of doctors in shows. The medical students overwhelmingly agree that the television medical dramas often show the doctors' emotional aftermath of the death of a patient. The doctors are sometimes/occasionally shown composed and with limited emotions when processing the death of a patient. Whereas sometimes/often they are seen displaying intense emotional distraught towards the situation. Consequently, it was determined that after the doctors dealt with death they sometimes/often coped through seeking help from a friend, colleague, profession, or partner. To find the most effective show at displaying coping skills and having doctors act as role models, responses were divided per the four most popular shows

and finds that Private Practice has the best role models and House MD most often shows characters employ healthy coping strategies like seeking help after patient loss (Table 6).

Table 6. The qualities/ actions of the characters in the four most popular tv shows

Shows	Q10: The fictional doctors are good role models.		Q16: The fictional doctors sought help after the loss of a patient with a friend, professional, partner, etc.	
House MD	Agree/ Neutral	38.1%	Always/ Often	30.9%
	Disagree/ Strongly Disagree	61.9%	Sometimes/ Occasionally	57.2%
			Never	11.9%
Grey's Anatomy	Agree/ Neutral	40.8%	Always/ Often	28.6%
	Disagree/ Strongly Disagree	59.2%	Sometimes/ Occasionally	57.1%
			Never	14.3%
Scrubs	Agree/ Neutral	44.2%	Always/ Often	30.2%
	Disagree/ Strongly Disagree	55.8%	Sometimes/ Occasionally	58.1%
			Never	11.6%
Private Practice	Agree/ Neutral	52.6%	Always/ Often	26.3%
	Disagree/ Strongly Disagree	47.3%	Sometimes/ Occasionally	57.9%
			Never	15.8%

In question #20, the participants were asked if they wanted to write additional information about any of their answers or further discussion of the survey. Two main ideas were found from the responses (Table 7).

Table 7. Responses to Q: 20

Main Idea	Summary
Courses on death	In Maryland medical schools, death is an advanced topic on patient communication. Overall, medical students learn about death in short elective classes. The courses are about palliative, hospice, and end of life care. These courses provide the students with more "real world" experience before they enter the medical field compared to other avenues of learning like lectures and simulations. The topics that are introduced cover death and loss as well as having difficult conversations with patients. The class prepares the students for older, chronically ill patients along with the patients' end of life decisions and care.
Realistic medical drama	Some students provided their opinion of the most realistic television dramas. There were 4 students who started a show they considered the most realistic, relative to the other medical dramas. All the responses regarding the most realistic television show provided the same opinion, the show "Scrubs". In relation to medical accuracy and death representation, "Scrubs" is the most realistic drama, according to the four participants. Also, it was revealed that teaching using medical dramas is familiar to medical students. Some answers expressed that television is used in Maryland medical schools to teach aspects of bioethics, but that death was not taught using this technique.

Discussion

The study concludes that the medical dramas, "Private Practice" and "House MD" can teach medical students about the aspects of personal emotion associated with experiencing patient death, which effectively answers the initial research question, do certain medical dramas have the capability to teach Maryland medical students to cope with the emotional toll of patient death? More specifically, the two medical dramas would be able to provide medical students with more complex circumstances surrounding death than their medical school training. As well as teach them about the frequency of experiencing death as a doctor leading to an awareness of the necessity of coping mechanisms.

Originally, the belief was that students will not be prepared to deal with the emotional aspects of patient loss, but they could learn to adopt important coping mechanisms from viewing medical dramas. It was determined that medical dramas are mostly inaccurate to reality, however, the capabilities of teaching medical students are not limited to the television show's lack of demonstrating accurate medical jargon and procedures. It

can be concluded that the shows do not depict the hypothesized healthy coping strategies but more work towards destigmatizing the emotions after losing a patient, hence creating an environment where seeking help after a tough loss is acceptable. Rather than the previous preconception that medical dramas will directly prepare the students for loss, the shows were found to provide context for the frequency of death in certain medical specialties. Also, more students will be exposed to doctors exhibiting emotional reactions to a patient's death because of the high occurrence of this in “Private Practice.” Emotional training through medical dramas could teach students about the importance of emotions in the medical field instead of the current doctor's feelings of shame, guilt, and suppression of all emotions (Kerasidou, 2016). Previous work from Quinn-Lee et al., 2014 and Semenova et al., 2016 claims that the destigmatization of emotions will help prevent death anxiety and burnout.

The data reveals that older students claim their medical school curriculum includes the topic of patient death whereas younger students answered in the negative. The progression of age likely shows that Maryland medical schools introduced the topic of death as students' progress through their education. Therefore, medical students will eventually learn about patient death throughout their curriculum. However, the schools only offer the medicinal side of palliative care while neglecting the emotional aspect. Therefore, the courses on death might not emotionally prepare the students for coping with loss.

It was necessary to ascertain whether this education considers the future doctors and includes suggestions for dealing with death. The results show that students are only somewhat exposed to suggestions for dealing with patient death in their future. These results were not shown to improve based on age. Therefore, the Maryland medical school curriculum includes teaching medical students about treatments regarding patient death but avoids an in-depth education focused on suggestions for how to deal with death via coping skills, which is reflected in the respondent's lack of emotional preparedness. Medical students do not feel prepared to deal with death because medical schools avoid adequately teaching students about emotional aspects of palliative care. This conclusion of the incomplete medical school palliative training provided to students directly aligns with the claims of previous work from Price et al, 2006; Barclay et al., 2015; and Redinbach et al., 2003.

According to the participants, the shows that represent the most accuracy regarding the portrayal of death are “House MD” and “Private Practice.” Similarly, “Private Practice” was noticed to have the most viewers agree that the characters can be considered role models as well as show the most emotional responses from the show’s doctors after dealing with loss. Additionally, “House MD” was found to depict the highest number of doctors exercising healthy coping mechanisms through seeking help from a peer after dealing with a difficult experience of patient death. Therefore, the television shows “House MD " and “Private Practice” have the highest capability to teach Maryland medical students to cope with the emotional toll of patient death.

An accurate depiction of what the medical students could experience during their career is important for medical students to preview in medical school. In other words, the accuracy of death in the two television dramas best teaches medical students about palliative care through the inclusion of more situations and circumstances surrounding death in the medical field. This ensures that medical students will be knowledgeable about what they might experience and how often they might be forced to deal with death. The realistic representation of death within the two shows provides students with a context of what they may experience during their careers. As an effect of viewing “Private Practice” and “House MD ", medical students will be able to explore the necessary coping mechanisms to deal with the various situations of patient death depicted in the shows. Additionally, the shows will best prepare students for more circumstances surrounding the emotional toll of palliative care like sudden, unexpected deaths that they are not exposed to in a classroom.

The characters in “Private Practice” are seen as role models more often than any of the other popular television dramas. Having role models portrayed on screen like in “Private Practice” can lead to the viewers imitating their actions. Medical students could have a hard time learning from the actions of fictitious characters if they do not have a realistic portrayal of doctors. Therefore, the medical students respect the actions of the

characters on “Private Practice”—actions such as displaying emotional outbursts after providing palliative care—which could lead to imitation of reactions like demonstrating healthy coping mechanisms.

Most of the time, if the on-screen doctors were experiencing patient loss, they would respond showing emotional distraught, where the medical drama that depicted it, the most was “Private Practice.” Meaning, the medical students that watched “Private Practice” were exposed to the most negative emotions after a patient loss. Therefore, the show can normalize and prepare the students for emotions like sadness, frustration, or anger, which the students could experience after a patient’s passing. Additionally, since “Private Practice” has the best portrayal of doctors, this increases the likelihood that medical students will adopt a more open outlook on expressing emotion after providing palliative care. The viewing of “Private Practice" is capable of normalizing the negative reactions after providing palliative care and reducing the guilt and shame around emotions in the medical field.

“House MD” was shown to depict the most characters seeking help after the loss of a patient. Therefore, “House MD” has the capabilities to instill the idea that students are not alone when experiencing a death in their career. The show also provides students with examples of proper coping strategies after providing palliative care. The use of “House MD” could fill the gap that found medical schools neglecting teaching students' useful mechanisms to cope with emotions after a patient's death. Consequently, “House MD” works towards destigmatizing the act of seeking help after the death of a patient. This is the most effective way to deal with negative emotions to avoid burnout and death anxiety (Redinbaugh et al., 2003).

Conclusion

Implications

It was concluded that the medical dramas “Private Practice” and “House MD” will help improve or create Maryland medical students’ personal approaches to dealing with death because of the exposure to death and emotions in the television shows. The accurate representation of death within “House MD” and “Private Practice” provides students with a context of various situations that they may experience a patient's death and provide palliative care. With the myriad of patient deaths, the doctors would also be depicted with the most emotional outbursts in following the events. The students can be visually taught about the emotions they may face as doctors. Then, the two dramas could facilitate an inward or outward discussion of the importance of minimizing the emotional effects of experiencing patient death using healthy coping mechanisms, similar to the conversations on perspectives found in Czarny et al 2008’s study of using medical dramas to teach bioethics topics. Moreover, a new wave of medical students will avoid carrying guilt and shame surrounding emotions, instead, work to destigmatize and create an environment of openness that accepts seeking help from a peer. Watching medical dramas can protect the mental health of doctors and validate the emotions surrounding palliative care. Therefore, through the viewing of medical dramas “Private Practice” and “House MD”, medical students can gain a new perspective on approaching death and normalize negative reactions to losing a patient. Doctors will be more apt to dealing with patient loss, thus effectively decreasing death anxiety and burnout among medical professionals.

This research shows that medical schools should implement more material on coping with patient death and ensure that medical students are prepared for the negative emotions they may experience while providing palliative care. Also, this research can be used to supplement the existing curriculum. Medical schools can show specific clips from “Private Practice” or “House MD” to teach students about how television characters deal with death and open a discussion about how medical students should approach this.

Limitations

This research's conclusion on the inadequacy of Maryland medical school curriculums is limited by the fact that the data provided could have been given by students who had not yet reached the complex topic of palliative care. The younger students in my study may have provided a misleading answer about what their school provides based on their limited personal experience. To combat this limitation, I analyzed responses to questions regarding the medical school curriculum based on age. I had not found a difference between the ages and therefore still concluded that Maryland medical schools neglect the emotional aspect of providing palliative care. Additionally, the participants listed multiple television shows they had seen which limits my research conclusions. My analysis required that I make the participants' responses applicable to the shows they had seen. Therefore, certain responses from students who have seen multiple shows might have not applied to all the listed shows or the participants made sweeping generalizations in their responses. This could have led to an underapproximation or exaggeration of a show's teaching abilities. Finally, my research is situated around the fact that medical students will eventually experience death during their careers, however this is not the case for many doctors. The conclusion is most beneficial to medical students planning to enter a medical field that experiences death. The medical specialties that would most benefit from viewing medical dramas include surgery, palliative medicine, and oncology.

Future Directions

This research should be further explored through the perspective of nursing students. The conclusion made about medical dramas teaching abilities is only applicable to medical students. Nurses may benefit from a study that identifies any issues with the nursing school curriculum regarding the emotional aspect of palliative care. Additionally, this study would seek a possible solution through medical television dramas. The two groups of students are not comparable because their curricula are different and doctors are more inclined to take responsibility for a patient's death, but a nurse is more likely to fear death and avoid it (Rassin, et al. n.d). Meaning, their responses to death could differ and the benefit of medical dramas for nurses could vary from doctors, but this can only be determined through future research.

My research can also facilitate a future meta-analysis of the medical dramas “House MD” and “Private Practice” to find clips to use in medical school classrooms. The research would explore a scene’s capability to depict accurate patient death, the negative emotions a doctor may experience, and the incorporation of healthy coping mechanisms. Using clips in a lecture will facilitate a discussion among peers and raise awareness to the mental health of doctors and the importance of coping mechanisms to avoid death anxiety and burnout. Finally, for future replication of this research I would ask students to list the television show/s they had seen the most or had most affected them. This change in the survey would allow future researchers to collect more accurate data pertaining to a specific show listed and limit generalizations made from participants when answering the survey questions.

Acknowledgments

I would like to thank my advisor for the valuable insight provided to me on this topic.

References

Barclay, Stephen, Rebecca Whyte, Pia Thiemann, John Benson, Diana F. Wood, Richard A. Parker, and Thelma Quince. "An important but stressful part of their future work: medical students' attitudes to

palliative care throughout their course." *Journal of pain and symptom management* 49, no. 2 (2015): 231-242.

Black, D., D. Hardoff, and J. Nelki. "Educating medical students about death and dying." *Archives of disease in childhood* 64, no. 5 (1989): 750.

Blackstone, Amy. *Principles of sociological inquiry: Qualitative and quantitative methods*. 2018.

Blasco, Pablo González, D. S. Garcia, Maria Auxiliadora C. de Benedetto, Graziela Moreto, A. F. Roncoletta, and Thais Troll. "Cinema for educating global doctors: from emotions to reflection, approaching the complexity of the Human Being." *PrimaryCare* 10, no. 3 (2010): 45-47.

Crawford, Gregory B., and Sofia C. Zambrano. "Junior doctors' views of how their undergraduate clinical electives in palliative care influenced their current practice of medicine." *Academic Medicine* 90, no. 3 (2015): 338-344.

Czarny, Matthew J., Ruth R. Faden, Marie T. Nolan, Edwin Bodensiek, and Jeremy Sugarman. "Medical and nursing students' television viewing habits: Potential implications for bioethics." *The American Journal of Bioethics* 8, no. 12 (2008): 1-8.

Dyrbye, Liselotte N., Matthew R. Thomas, and Tait D. Shanafelt. "Systematic review of depression, anxiety, and other indicators of psychological distress among US and Canadian medical students." *Academic medicine* 81, no. 4 (2006): 354-373.

Dudovskiy, John. "Exploratory Research - Research-Methodology." Research. Accessed January 13, 2022. https://research-methodology.net/research-methodology/research-design/exploratory-research/.

Fallowfield, Lesley, and Valerie Jenkins. "Communicating sad, bad, and difficult news in medicine." *The Lancet* 363, no. 9405 (2004): 312-319.

Fariña, Juan Jorge Michel. "A model for teaching bioethics and human rights through cinema and popular TV series: A methodological approach." *Counselling Psychology Quarterly* 22, no. 1 (2009): 105-117.

Garland, Ron. "The mid-point on a rating scale: Is it desirable." *Marketing bulletin* 2, no. 1 (1991): 66-70.

Hafferty, Frederic W. "Beyond curriculum reform: confronting medicine's hidden curriculum." *Academic medicine: journal of the Association of American Medical Colleges* 73, no. 4 (1998): 403-407.

Ho, Chong Yao, Cheryl Shumin Kow, Chin Howe Joshua Chia, Jia Ying Low, Yong Hao Melvin Lai, Sarah-Kei Lauw, Ashley Ern Hui How et al. "The impact of death and dying on the personhood of medical students: a systematic scoping review." *BMC medical education* 20, no. 1 (2020): 1-16.

Hoffman, Beth L., Ariel Shensa, Charles Wessel, Robert Hoffman, and Brian A. Primack. "Exposure to fictional medical television and health: a systematic review." *Health education research* 32, no. 2 (2017): 107-123.

Joshi, Ankur, Saket Kale, Satish Chandel, and D. Kumar Pal. "Likert scale: Explored and explained." *British Journal of Applied Science & Technology* 7, no. 4 (2015): 396.

Jones, Thomas L., M. A. J. Baxter, and Vikas Khanduja. "A quick guide to survey research." *The Annals of The Royal College of Surgeons of England* 95, no. 1 (2013): 5-7.

Kerasidou, Angeliki, and Ruth Horn. "Making space for empathy: supporting doctors in the emotional labour of clinical care." *BMC medical ethics* 17, no. 1 (2016): 1-5.

Ofri, Danielle. What doctors feel: how emotions affect the practice of medicine. Beacon press, 2013.

Price, Jayne, Patricia McNeilly, and Mark Surgenor. "Breaking bad news." *Paediatric Nursing* 18, no. 7 (2006): 37-38.

Quinn-Lee, Lisa, Leah Olson-McBride, and April Unterberger. "Burnout and death anxiety in hospice social workers." *Journal of social work in end-of-life & palliative care* 10, no. 3 (2014): 219-239.

Rassin, Michal, Keren Paz Dado, and Miri Avraham. "The role of health care professionals in breaking bad news about death: the perspectives of doctors, nurses and social workers." *International journal of caring sciences* 6, no. 2 (2013): 227.

Redinbaugh, Ellen M., Amy M. Sullivan, Susan D. Block, Nina M. Gadmer, Matthew Lakoma, Ann M. Mitchell, Deborah Seltzer, Jennifer Wolford, and Robert M. Arnold. "Doctors' emotional reactions to recent death of a patient: cross sectional study of hospital doctors." *Bmj* 327, no. 7408 (2003): 185.

Semenova, Veronica, and Leann Stadtlander. "Death anxiety, depression, and coping in family caregivers." *Journal of Social, Behavioral, and Health Sciences* 10, no. 1 (2016): 5.

Shelp, Earl E., Michael L. Russell, and Nellie P. Grose. "Students' attitudes to ethics in the medical school curriculum." *Journal of medical ethics* 7, no. 2 (1981): 70-73.

Slocum-Gori, Suzanne, David Hemsworth, Winnie WY Chan, Anna Carson, and Arminee Kazanjian. "Understanding compassion satisfaction, compassion fatigue and burnout: A survey of the hospice palliative care workforce." *Palliative medicine* 27, no. 2 (2013): 172-178.

Thiemann, Pia, Thelma Quince, John Benson, Diana Wood, and Stephen Barclay. "Medical students' death anxiety: Severity and association with psychological health and attitudes toward palliative care." *Journal of pain and symptom management* 50, no. 3 (2015): 335-342.