“The Hippo-Critical Oath: How Time Constrained Physicians Contribute to the Opioid Epidemic”

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Introduction

Drug abuse has become such a familiar concept that today, some people choose to look past this ugly habit of others and don't acknowledge the dangers of such abuse. The United States alone has a significant amount of deaths related to drug abuse with around 70,000 in 2017 ("Overdose Death Rates" 2019) with one category of drugs contributing greatly to these numbers within the past three decades: opioids. The medical community, including pharmaceutical companies and physicians, have used opioids as its go-to prescription for moderate to severe pain in patients. Opioids may have proven to be an effective treatment for pain relief, but their addictive properties have made them very dangerous to the lives of patients and those surrounding them. In fact, of those 70,000 drug overdose related deaths in 2017, nearly seventy percent of them involved the use of opioids at 47,600 deaths, demonstrating how intense the opioid crisis has become ("Overdose Death Rates, 2019). Not only is it important to note how many people have died from opioid overdose, but it is also important to understand that of those deaths, half of them were non-patients (Shipton et al., 2018), indicating that opioids are finding themselves in the wrong hands and their overuse is risking the lives of more than what it should be. This trend correlates from data from 2012 in which there were 1.8 million nonmedical users

abusing opioids, demonstrating that the society among the United States hasn't taken effective strides toward combatting and defeating this epidemic. ("Pain Management…" 2017).

As opioid abuse becomes more and more prevalent among society, it comes to question how has the opioid crisis gotten to the point where it is today? How are people illicitly obtaining opioids if only a certain number of pills were meant for a patient? More specifically, *who* has allowed the opioid crisis to get to this point of severity? There are plenty of groups and thousands of people who could be taking responsibility for the wide spreading of opioid use, with some groups of people are contributing heavily to the epidemic more than others. For example, Purdue Pharma has recently been placed under the spotlight for not disclosing information regarding their opioids as well as baiting physicians with monetary incentives to prescribe certain medications as explained by T.D. Nguyen and colleagues in "Pharmaceutical payments to physicians may increase prescribing for opioids." Despite their actions as well as other pharmaceutical industries, there is another group who is even more responsible for fueling the opioid epidemic: doctors. However, how could it be possible that the people who swore under oath to do no harm to patients are the ones fueling a deadly epidemic? Truthfully, physicians' contribution to the opioid epidemic lies in their prescribing habits as another term for opioids is *prescription* painkillers, in which physicians are the source of such prescriptions. These prescriptions are allowing patients, as well non-patients, easy access to these addictive drugs. Although a physician's prescription pad may be the beginning of a path to addiction, it is not as though physicians are recklessly prescribing opioids to purposefully harm their patients; it is more than likely that the prescribing habits of a physician is being affected by other factors, especially time.

As physicians are tasked with completing various responsibilities daily, they are faced with the pressure to complete such tasks in a timely manner and with top quality. However, as more tasks pile onto each other, the time available to complete them constricts, forcing physicians to cut spending time on certain activities, including time spent in the patient room. Time's influence on the prescribing practices of physicians can be explained through Dalal A. ALQahtani et al.'s, "Does time pressure have a negative effect on diagnostic accuracy?" as they mention the various types of psychological thinking processes that could be used when it comes to diagnosing patients and how the processes used change depending on time available. Using the correct psychological processing is also dependent on whether certain conversations and observations are held during a doctor's appointment as David C. Dugdale et al. mentions in "Time and the patient-physician relationship," thus demonstrating that the lack of conversation occurring in patient rooms is influencing physicians to use more of their own intuition regarding patient conditions and preventing physicians from performing accurate analyses of patient histories and statuses regarding their health. The argument of physicians not performing traditional tasks with a patient during appointments and thus resulting in unnecessary opioid prescription is further supported by Douglas C. McDonald and Kenneth E. Carlson in "Estimating the prevalence of opioid diversion by 'doctor shoppers' in the United States," in which they explain physicians' lack of effort in checking patient prescription databases that contain important opioid prescription histories of patients.

Such use of intuition and incorrect psychological processing and well as lack of use of patient databases are exemplified by Liese C.C. Pruitt and colleagues in "Prescription vs. consumption: Opioid overprescription to children after common surgical procedures," where the physicians of the Intermountain Health Group, a chain of hospitals located in the Midwest, have

demonstrated that over-prescription of opioids is in fact prevalent. Using the each of these theories regarding the relationship between time constraints and a physician, as well as Nguyen et al.'s theory that incentives from pharmaceutical industries influence prescribing practices, how does the inadequate amount of time physicians are spending with their patients negatively influencing their prescribing practices and in turn, contributing to the current opioid epidemic? Although physicians are not purposefully trying to harm their patients, their time pressured schedules is easily influencing physician prescribing practices, making physicians susceptible to prescribing more opioids than what may be necessary. Such actions are endangering the lives of their patients as the overprescribed medication can be an opioid, increasing the possibility of a patient abusing their medication as well as creating an opportunity for drug diversion to take place.

Doctors' Role in the Opioid Crisis

As previously mentioned, physicians experience very busy schedules daily; one of the consequences of having a busy schedule is that physicians shorten the time that they spend with their patients. According to ALQahtani et al.'s study, physicians who faced time constraints and were aware they were behind in schedule, made more mistakes in the diagnostic process than physicians who were not time constrained (2016, p. 712). The mistakes that were made during the diagnostic process was most likely due to the fact that physicians were unable to spend an adequate amount of time analyzing the patient properly, foregoing what could be valuable information to the diagnostic process but went unnoticed because the physician was rushing. With physicians being forced to spend less time with their patients, they are hindering their psychological processes that are vital for making correct diagnoses and are most likely using System 1 reasoning which is a "[…] quick, intuitive, implicit, contextualized, and typically

efficient in diagnosing routine cases. Despite its efficiency, however, System 1 reasoning is thought to be vulnerable to errors" (ALQahtani et al., 2016, p. 711). By utilizing the term "intuitive," ALQahtani et al. are demonstrating that physicians who are short on time are using their experience with previous patients who had similar symptoms and conditions to diagnose their current patient. However, the flaw in this method is that no patient is exactly the same; there is the possibility that one different characteristic of a patient's condition could alter the entire diagnosis, thus possibly changing the prescription.

Some of the valuable information that could be vital during the diagnostic process lies within a patient's history; however, when physicians start to see more than three patients per hour, this information was ignored as Dugdale et al explain "the taking of medical history related to cigarettes, alcohol, and social or family history, and preventative care aimed […] were significantly less frequent […] with visit rates of over 3.8 per hour" (1999, p. 36). Tasks such as immunizations and taking medical history are routine activities that occur in the doctor's office. However, time management for doctors is becoming so increasingly difficult that doctors are foregoing such simple, yet very important tasks. Specifically, looking at patient history can be very relevant when it comes to patients with a family history of drug abuse or the patients themselves have a history of addiction, especially if the patient is being prescribed opioids (McDonald & Carlson, 2013). With prescription painkillers very addictive properties, it is vital for doctors to take a patient's history in order to distinguish any patterns that might make it more likely for a patient to experience opioid addiction.

<u>The Intermountain Health Group & The Hospital for Special Surgery</u>

The research conducted by both ALQahtani et al. and Dugdale et al. display the hypothetical situations of what occurs when physicians don't spend enough time with their

patients; however, Pruitt et al.'s research depict real life situations of where there is an over prescription of opioids, specifically in pediatric care. Dugdale et al.'s article focused on the lack of relationship that was established between a patient and his or her doctor as doctors may not have enough time to thoroughly meet with a patient for as long as they would like. Due to this time constraint, "[…] physicians who expressed feeling a lack time in their medical practices had higher rates of writing prescriptions than physicians who did not feel a lack of time. […] They concluded that shorter visits, especially those less than 15 minutes, were a risk factor for inappropriate prescribing […]" (Dugdale et al., 1999, p. 35). Examples of the inappropriate prescribing that Dugdale et al. claim are mentioned by Pruitt et al. as they state that the opioids prescribed to the pediatric patients in their study were almost double the amount that was actually consumed and necessary for pain relief (information based off of patient surveys) which could indicate that the physicians of the Intermountain Health hospitals may feel pressured by time and therefore, are rushing patient visits (2019, p. 2).

Physicians of the Intermountain Health Group are not alone in their dangerous prescribing practices as the surgeons of the Hospital for Special Surgeries in New York demonstrated similar prescribing patterns (Kumar et al., 2017). Pruitt et al.'s research focused on pediatric care which creates the argument that since the patients are pediatric, parents are more likely to be even more cautious with their children who are taking such dangerous medications, considering that they would view younger patients to have less self-control of their actions. However, Kumar et al. conducted their study on the physicians of adult patients, who clearly have much more control over their actions and their personal choice to continue taking opioids whether it be necessary or not. In comparison to the data from the Intermountain Health Group physicians, the prescribing practices of the special surgery physicians were much worse as there

was a surplus of nearly 3000 unused opioids in patients' possession (Kumar et al, 2017, p. 638), clearly indicating that physicians, regardless of their chosen specialty are susceptible to prescribing an unnecessary amount of opioids than needed to achieve pain relief due to the idea that physicians are spending less time with their patients as Dugdale et al. mention.

If the Intermountain Health and Special Surgery physicians are feeling time constrained, the more likely they are to use the System 1 processing as well as the belief bias that ALQahtani et al. mentions. The number of physicians in these studies using these analytic methods could be more than expected as the patients who received opioids underwent the most *common* procedures. If physicians are consistently performing similar or nearly exact procedures on patients, the more likely they are going to prescribe the same pain management opioids, to their future, similar patients, without thoroughly analyzing a patient's history or whether opioids are even a necessity. This practice is exactly what Pruitt et al. state needs modification. If physicians spent more time with their patients, there could be a smaller number of opioid prescriptions, and for those who do need opioids, proper "[…] patient and family counseling prior to surgery and optimizing nonopioid pain medication use are critical to reducing future opioid over-prescribing" (Pruitt et al., 2019, p. 4). Such counseling is vital to a patient using opioids as the patient must be aware of all the risks that come with taking them as well as how to properly dispose of any unused medication in order to prevent drug diversion. Nevertheless, patient and family thorough counseling may not be possible if physicians are rushing through their patients' appointments.

Drug Diversion and Doctor Shopping

With physicians lacking time to put the effort into educating their patients on the proper disposal of prescription painkillers, opioids are even more susceptible to being diverted into the wrong hands, more specifically into the hands of those who do not need them. The idea of

educating patients has become more of an urgency especially after the results of Kumar et al.'s research which demonstrated that there was a " […] lack of patients education regarding opioids disposal as well as dissatisfaction regarding appropriate guidance on pain management and opioid-related side effects" (2017, p. 639-640). By patients stating that they were dissatisfied with the lack of education they received, patients are then implying that they are dissatisfied with the quality of work of their prescriber, as it is the prescribers' role to properly educate the patients. Physicians cannot prescribe with the assumption that every patient has the common sense to know what an opioid is and the negative reputation behind it. Not every patient went to medical school or an occupation in the medical field; not every patient has a family member who has used opioids or some type of experience with opioids, thus demonstrating that not every patient understands the negative reputation behind opioids that is their addictive properties, and it is the prescriber's obligation to help those patients understand.

Despite the fact that there is a large number of patients who are unaware of opioid's addictive nature and are not properly educated about opioids, there are patients who do know the dangers of opioid but continuously request for its prescription; these patients are considered doctor shoppers. These patients have the malintention of using their prescribed opioids in order to feed their already well-developed prescription painkiller addiction. These patients are able to get away with such actions by "exploiting gaps and weaknesses in healthcare information systems […] physicians often have to rely on what new patients tell (or do not tell) them about the care they are receiving from others" (McDonald & Carlson, 2013, p. 2). Physicians are the main source for people to legally obtain opioids and this is because of either the incorrect prescription or the over prescription of these dangerous drugs. However, there are many instances in which physicians are deceived by their patients, allowing them to believe that their

patients really need the pain medication when in reality, the patient is a doctor shopper. Regardless of the patient's intentions in the doctor's office, there is still a major fault with physicians. With McDonald and Carlson indicating that there are "gaps and weaknesses in the healthcare information system," they are indicating that patients are abusing prescribing practice because physicians are *allowing* them to do so. Such gaps and weaknesses that McDonald and Carlson are referring to isn't the lack of there being a prescription information system, but rather the lack of physicians using this information system.

Patients are further abusing the lack of physicians' attention due to the fact that physicians are consistently busy people and thus, rushing to get things finished. The idea of checking a database in order to check if a patient is doctor shopping is not a popular action and has not been " […] incorporated into their routines such data collection in advance to prescribing opioids […] Accessing the data is a cumbersome process in many states, which hinders integrating it into a physicians' workflow" (McDonald & Carlson, 2013, p. 9). According to McDonald and Carlson, the addition of checking the data systems that provide prescriber information would be a burden to physicians and their already busy schedules. Their incorporation of the terms "cumbersome" and "hinders" demonstrates how that utilizing the data system is a very slow process that would prevent physicians from being productive since they wouldn't be able to complete the tasks that were assigned to them. Checking a data system for every patient wouldn't be practical as many physicians are trying to a spend less than 15 minutes with their patient. Physicians' lack of action related back to an issue raised by Dugdale et al., which is the idea that physicians foregoing preventative care with their patients in order to save time for other responsibilities (1999, p. 36). Such preventative care that is inferred in this statement includes the practice of either educating patients on the proper disposal of dangerous

opioids (Pruitt et al., 2019, p. 4) as well as checking the prescriber data system for a patient's medical history in order to ensure that their patient is not doctor shopping. The more time pressured a physician may feel, the less likely they are to do any preventative care; in addition, physicians may be less likely to notice the warning signs of a patient addicted to opioids. Many experienced physicians have the ability to tell whether patients have developed an addiction without the use of prescription data systems, but this skill is hindered when less time is spent in the patient room and therefore a lack of thinking (ALQahtani et al., 2016), making a patient is more likely to take advantage of the physician, and the physician more likely to overprescribe opioids to an addict.

Profit Driven Physicians

Similar to how McDonald and Carlson's article portrayed patients to be at fault for the opioid epidemic through doctor shopping, Nguyen et al. portray pharmacists and the pharmaceutical industry as the main contributor to the opioid epidemic. People have placed the blame for the opioid epidemic on large pharmaceutical industries, blaming them for even creating highly addictive medications in the first place. However, a large part of the blame cannot be attributed to the creation of highly addictive opioids, but rather the methods used to advertise these opioids to physicians. Purdue Pharma is a major pharmaceutical company that has been under fire by the public for their activities used to promote opioids. It was even announced that Purdue Pharma will, " […] cease opioid promotional activities aimed at physicians" and because of their announcement, it only provides further indication that " […] there is renewed interest in understanding the role of promotional activities in the opioid crisis" (Nguyen et al., 2019, p. 1052). The announcement to end the incentives they offer physicians indicates that there was clearly a well-developed problem that is putting the lives of many

patients at risk. Such promotional activities that are included in this statement is the monetary payment that doctors are receiving. Although many would place the blame on the pharmaceutical industries for even offering payments to physicians, it also should be noted that physicians are not required to take such payments. It is no secret that physicians have a high income, but with their acceptance of the promotional activities from pharmaceutical companies portrays the idea that they want more: more benefits, more opportunities, more *money*. With physicians accepting these monetary incentives regardless of its amount, it becomes clear that the true role of pharmaceutical companies' promotional activities is to fuel one of the true causes of the opioid epidemic: greed.

Considering the studies that demonstrate some physicians are continuously accepting monetary incentives from pharmaceutical companies, it comes to question why is there a need for greed? There is no doubt that the physician occupation is a very high paying job with salaries ranging from the 200,000 to 600,000 dollars per year ("Physician Starting," 2019), allowing physicians to have a more than decent way of life. With these salaries in conjunction with the decision to accept monetary incentives, it comes to question, what more are physicians doing to increase their profit? It is necessary to reanalyze the idea that physicians are spending an inadequate amount of time with patients, which can be attributed to a physician's method of payment. Physicians are known to receive their pay through a "fee-for-service" method, which essentially demonstrates that physicians are paid a certain amount of money per patient (Livni, 2017). Livni's explanation of how seeing more patients per hour means more money for a physician, coincides with ideas that were exhibited by Dugdale et al. as well as McDonald and Carlson, in which they claimed that physicians were not completing routine tasks in the patient room due to time constraints in order to increase productivity by seeing more patients per day;

thus, indicating that physicians are spending less time with their patients to not only complete a day's task, but also earn more money. Physicians may be working more efficiently and earning more money by seeing more patients, but at the cost of their patients' well-being and overall quality of life once on the path of opioid addiction.

Conclusion

The opioid epidemic is damaging the lives of millions and our "trusted" doctors are to blame. Physicians' consistently busy schedules and their need to complete responsibilities under time constraints is forcing them to spend less time with their patients, influencing physicians to base their diagnoses and prescriptions on intuition and use shorter, more convenient psychological processes and belief bias, thus preventing them from making proper analyses of their patients. Not only have physicians psychologically stopping analyzing patients correctly, but they have been forgoing important physical analytical tasks such as viewing patient histories, which provide the information of whether a patient is more susceptible to opioid addiction than other patients, all of which provides explanation to why there has been an over-prescription of opioids. Time constraints have also influenced physicians to ignore the inclusion of preventative actions such as opioid education. The lack of education is allowing the improper disposal of opioids to occur throughout society where those unused opioids are being diverted into the wrong hands and influencing the continuation of doctor shopping and illegal opioid use, thus explaining why there is an increase in non-patient opioid abuse and overdoses within the past decade. In turn, the amount of time that physicians spend with their patients, or better yet lack of time physicians are spending patients can be attributed to the fact that physicians are increasing their work productivity to unnecessarily increase profit, which is influenced by monetary

incentives of pharmaceutical industries such as Purdue Pharma, incentives that physicians are not required to take.

Although there is current action being done to combat the opioid epidemic by President Trump and his administration, more action needs to be done by those who have greater responsibility for causing the opioid epidemic: physicians and pharmaceutical companies. Other pharmaceutical industries should follow suit with Purdue Pharma and stop influencing physicians to prescribe opioids with monetary incentives. Chain hospital groups should stop jeopardizing the well-being of patients by restricting medical advancements such as virtual doctor appointments to patients who are not in need of any major prescription, or rather require patients to be seen in person if a stronger dosage or medication is required. Physicians who are consistently time pressured should do anything necessary to balance schedules in ways that don't include spending less time with their patients, which will then permit them to build relationships with their patients and benefit the well-being of their patients as well as themselves. Opioid abuse will always remain prevalent in today's society, but any precaution or action taken by those who are responsible for this epidemic is allowing society to slowly move forward to lessen the number of people addicted to opioids.

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