

Cultural Influences on Pain and Pain Management in the United States and Germany

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### **Introduction:**

The impact of culture is sometimes more extensive than we realize. It might be expected that cultural differences between two nations can lead to discrepancies in their healthcare policies, but at an even deeper level, cultural norms can dictate how health in general is defined within a given population. The goal of this paper is to explore the extent to which culture impacts how we understand health and disease with a specific focus on the use of opioids in pain management. To do this, I evaluate how certain cultural differences between the United States and Germany affect the expectations of physicians and patients in a healthcare context. I have chosen to compare the United States and Germany because they are both developed nations at the forefront of medical science, yet the scale of opioid abuse is much larger in the United States. Through this paper, I will explore how the cultural differences between the two nations have resulted in the development of different governmental policies, especially with regard to the use of opioids for pain management and addiction treatment. The purpose of this paper is not to make qualitative judgements on the two nations' approaches to these problems, rather it is to evaluate and discuss the cultural aspects that translate into those different tactics.

Due to the scope of this thesis, I have mostly evaluated sources that focus on the perspectives of public health professionals and physicians. This paper would likely greatly benefit if I were able to conduct a study or survey that evaluates the perspective of patients in the United States and Germany regarding how pain treatment should be carried out. However, due to the time frame and nature of this assignment as an undergraduate thesis project, I have primarily evaluated existing literature to form the content of this paper. This topic is of particular interest to me because of my background as a German major and my goal to become a physician. Most

academic texts that I have examined through the course of this project are written in or translated to English because English is the universal language of science; however, many of the sources that underscore the cultural themes in Germany (such as newspaper articles, interviews with experts, and curricula) require proficiency with the German language to make a holistic comparison.

In order to make this comparison between the two nations, I begin in the first chapter with an examination of how disease can be defined and understood differently in varying cultural contexts. This is followed by a discussion of how discordant understandings of disease and health can cause discrepancies in healthcare expectations between physicians and their patients. I then examine how this cultural relativism with regard to disease translates into whether or not pain is considered a disease in its own right. In the second chapter, I discuss how pain can actually be experienced and expressed differently based on an individual's cultural background and how this phenomenon complicates healthcare management of a diverse population. Next, I explore how advertising by pharmaceutical companies to physicians and patients can affect how patients are treated. I then examine the status of pain education in medical schools in the two nations. In the fourth chapter, I explore the factors that have led to the development of the opioid crisis over the past several decades in America with a parallel discussion of some of the different regulatory measures in place in Germany that seem to be effective at controlling prescription opioid abuse. The body of the thesis concludes with a comparison of how addiction is viewed in the two countries and how that translates into different methods for controlling and treating it.

## **Chapter One:**

### *What is disease?*

Disease is a term that is decidedly difficult to define adequately. Many definitions describe it as a state where the body does not function normally or to the capacity that it is desired to function. Following this line of thinking, disease is essentially the opposite of health. However, this brings about an element of subjectivity; who is to say that one person's expectation of his or her normal level of function is the same as another's? Further, if there can be different expectations of health between individuals, there are likely even starker divergences among people of different cultures. In her article, "What is a Disease?" Jackie Leach Scully of Newcastle University describes this idea when she writes, "Notions of health are highly context-dependent, as human diseases only exist in relation to people, and people live in varied cultural contexts" (2004, p. 650). This can be seen clearly in cases of healthcare disparities. A fifty-year-old in the United States or Germany who is considered healthy is held to a vastly different standard to be considered such than a person of the same age in a third-world country whose average life expectancy is in the mid-fifties, such as many countries in Sub-Saharan Africa (WHO, 2016)<sup>1</sup>. Additionally, this idea is apparent when one considers the differences in health expectations throughout history, which would be an interesting topic to analyze; however, for the purposes of this paper, I am choosing to focus on how contemporary cultural differences impact healthcare decisions.

Because expectations about health are so context-dependent, they can have massive implications for the relationship between physician and patient. To ensure the success of a medical treatment, it is paramount that patients and their physicians have unified goals and expectations for the outcomes of health interventions. Medical intervention can be generalized to

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<sup>1</sup> World Health Organization (WHO) Retrieved from [http://gamapservr.who.int/gho/interactive\\_charts/mbd/life\\_expectancy/atlas.html](http://gamapservr.who.int/gho/interactive_charts/mbd/life_expectancy/atlas.html) [Last accessed March 12, 2018.]

two basic purposes: to increase the chances of the patient's survival and to improve the patient's quality of life. In many cases, these two goals overlap and coincide with one another, but there are many times where they are discordant. This balance between improving quality of life and extending life expectancy is especially relevant in the areas of geriatrics and palliative care, especially for patients with a history of addiction. Maintaining that balance is complicated when treatment options are considered from the perspective of preserving public health versus that of a physician who is treating a patient one-on-one. In the exam room, there is often an expectation from the patient that the physician will be able to alleviate whatever symptoms brought him or her to the office, however, alleviating one specific patient's symptoms can have large implications for the health of the community at large, especially when treatment requires the use of controlled substances. In cases of pain management, physicians must balance the desire to control a patient's pain with the risk of developing addiction and increasing the number of opiates that are available in general. These considerations that physicians have to make when they pull out their prescription pads are often heavily influenced by the desire to please their patients.

Patient satisfaction scores have been a part of healthcare quality management in many Western societies since the 1980s, and they have continued to have an ever-growing impact on healthcare decisions as they have become more widespread (Williams 1994, p. 509). This is true both here in the United States, as well as in Germany. The German Institute for Quality Management and Transparency in Healthcare (IQTIG)<sup>2</sup> reports on its website that patient satisfaction surveys will play a central role in the future for the development of quality management methods: "Patientenbefragungen spielen künftig für die Entwicklung von

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<sup>2</sup> Institut für Qualitätssicherung und Transparenz im Gesundheitswesen (IQTIG) <https://iqtig.org/datenerfassung/patientenbefragungen/allgemeine-informationen/> [Last accessed March 19, 2018]

Qualitätssicherungsverfahren... eine zentrale Rolle” (2018). Additionally, the Bavarian Association of Statutory Health Insurance Physicians (KVB) recommends that its physicians distinguish themselves from other non-KVB practitioners through their patient-friendly service in order to be more competitive by appealing to them as follows: “Um erfolgreich unter zunehmend verschärften Wettbewerbsbedingungen bestehen zu können, hilft es Ihnen, sich durch patientenfreundlichere Serviceorientierung als Alleinstellungsmerkmal von anderen Praxen zu unterscheiden” (KVB)<sup>3</sup>. This mindset of pleasing the patients can become problematic when a patient’s desires do not fall in line with the standard of care – such as when a patient requests antibiotics or narcotics in cases where they are not clinically indicated. A group of researchers from the University of Wisconsin – Madison performed a survey of one hundred and fifty-five active physicians of a state-level medical society and found that almost half of the respondents felt that pressure to obtain better scores on satisfaction questionnaires promotes inappropriate care, such as ordering unneeded tests or writing unnecessary prescriptions. Twenty percent of the physicians surveyed answered that their employment had been threatened due to data from satisfaction surveys (Zgierska et al., 2014, p. 437). As patient satisfaction becomes a more widespread metric of the success of healthcare outcomes in the United States and Germany, some medical professionals are being placed in difficult positions where treating patients with what is regarded as the standard of care might prevent them from being able to continue practicing because doing so might yield negative patient reviews.

All of this is to point out that healthcare decisions are complex. There is not always a clear, cut and dry answer for how a patient should be treated. There are so many factors that play into how a patient’s health should be handled, and many of those factors can change relative to

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<sup>3</sup> Kassenärztliche Vereinigung Bayerns (KVB)  
<https://www.kvb.de/praxis/qualitaet/qualitaetsmanagement/patientenbefragungen/> [Last accessed March 19, 2018]

the context of the physician-patient interaction. Patients' expectations might be influenced by advertisements by pharmaceutical companies, and it is the responsibility of healthcare providers to mitigate their patients' expectations to ensure that they are realistic, while still providing their patients with the best level of care possible. Understanding how nuanced these interactions can be is extremely important in this discussion of pain treatment in general, and the focus of this study will analyze this in the contexts of the United States and Germany.

### *Is pain a disease?*

From an evolutionary perspective, pain is a very useful tool. It encourages avoiding damage to the body, and it can induce fear of things that could cause death. To understand the importance of pain, one needs to only study cases of patients who suffer from congenital insensitivity to pain with anhidrosis (CIPA), a condition that causes its sufferers to not feel pain. A 2012 paper from the Tehran University of Medical Sciences provides several case studies of children they have treated with this extraordinarily rare condition. The authors report that patients with this condition, "must constantly check for cuts, bruises, self-mutilations, and other possible unfelt injuries," and they later add that, "A heat attack...is much more dangerous for patients with CIPA because they do not feel it, therefore do not know that they need to be hospitalized" (Daneshjou et al., 2012, p. 412 & 415). However, on the other side of the coin, if pain persists after it has fulfilled its role as a warning sign against danger, it becomes maladaptive. Some types of chronic pain issues, such as fibromyalgia or complex regional pain syndrome, are regarded as diseases in their own right because even if the pain is originally present due to some kind of tissue damage, the pain can persist well beyond the injury healing itself. These types of chronic pain cases are some of the most common complaints that are heard

in doctors' offices worldwide (Institute of Medicine, 2011). The Institute of Medicine Committee on Advancing Pain Research, Care, and Education (IOM) reports that common chronic pain complaints affect an estimated 100 million Americans, or about thirty percent of the population (IOM, 2011; U.S. Census Bureau, 2018)<sup>4</sup>. Interestingly, a survey conducted in 2012 of chronic pain in Europe found that only 17 percent of German adults suffered from chronic pain (Breivik et al., 2012, p. 290).

Classifying pain as a disease in its own right is a hotly debated topic in the global medical community. In their essay, "Pain as a Disease: an Overview," William Raffaelli and Elisa Arnaudo highlight that there is a consensus within the medical community that there is a difference between symptomatic pain and chronic pain. However, they add that there have been difficulties in officially categorizing chronic pain pathologies in the International Classification of Diseases (ICD) (2017, p. 2007). This lack of official classification inhibits data collection regarding pain epidemiology and complicates healthcare billing for expenses related to pain treatment, since certain chronic pain conditions are not officially recognized (2017, p. 2007). There are steps being taken by the International Association for the Study of Pain to have a new categorization of pain pathologies added to the 11<sup>th</sup> edition of the ICD, which is scheduled to be released in June of 2018 (WHO, 2018)<sup>5</sup>. Raffaelli and Arnaudo posit that doing so will help to change the global medical community's perspective on certain chronic pain conditions, thereby limiting unnecessary diagnostic procedures aimed at identifying the cause of a patient's pain. The idea is that having better official classifications of the different categories of pain will better equip physicians to understand and therefore properly treat those conditions.

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<sup>4</sup> U.S. Census Bureau <https://www.census.gov/popclock> [Last accessed April 30, 2018]

<sup>5</sup> World Health Organization (WHO). <http://www.who.int/classifications/icd/revision/en/> [Last accessed March 24, 2018]

## **Chapter Two:**

### *Understanding How We Experience Pain*

Above, I have discussed the subjectivity of disease and some of the implications of that subjectivity on healthcare decisions. This idea is especially relevant in the area of pain management, and the first part of this chapter will focus on some of the difficulties that healthcare providers face when assessing and treating their patients' pain. Pain is an incredibly interesting phenomenon because it is unique to every individual. Physicians cannot measure their patients' pain like they can blood pressure or heart rate. Instead, they must rely on their patients to describe their pain in order to assess it. Pain is what the patient reports it is, and this places a vast amount of responsibility on both patients and physicians. While patients are expected to be able to accurately describe their pain, it is their physicians' responsibility to be able to understand those descriptions. This can become problematic in the healthcare context when there are different cultural expectations between patients and their providers about how pain is or should be expressed.

Pain is an entirely personal experience. However, the way that we express our pain can be heavily influenced by a variety of extra-personal factors. Sue Peacock and Shilpa Patel describe this in their paper "Cultural Influences on Pain" when they write, "Pain is a private experience, however pain behaviour is influenced by social, cultural, and psychological factors. It is these factors that influence whether private pain is translated into pain behaviour, the form this behaviour takes, and the social setting in which it occurs" (2008, p. 7). There have been many studies that seek to evaluate the differences in pain tolerance and expression among different ethnicities and sexes, and those variables almost uniformly translate into statistically

significant differences in pain perception, sensitivity, or responses<sup>6</sup>. One study that was conducted by Edwards et al. at the University of Alabama at Birmingham in 2001 found that, “African American subjects reported higher levels of clinical pain as well as greater pain-related disability than white participants” (Edwards et al., 2001, p. 316). This study is particularly interesting because clinical pain was the topic of investigation, rather than pain experienced in a controlled experimental manner.

A later study from 2012 performed by Claudia Campbell from Johns Hopkins University School of Medicine and Robert Edwards of Harvard Medical School provides some sociocultural reasons for these differences. The researchers posit, “Differences in a variety of sociocultural patient-related factors, from family traditions and religious beliefs to patient preference and previous experiences, influence disparities in pain” (2012, p. 226). They also discuss the differences in how pain coping strategies common to certain ethnicities can increase the likelihood of reporting a higher level of pain. Using the example of a study of rheumatoid arthritis patients, the researchers report that Caucasians tended to rely more on pain-coping methods that increased their perceived ability to control pain (such as ignoring the pain or using positive coping self-statements), while African-American subjects were more likely to use passive pain strategies (such as distracting themselves or hoping and praying for relief) to cope with their pain (2012, p. 226)<sup>7</sup>. These findings underscore an important point in why the treatment of pain can be so difficult, especially when treating a diverse patient population.

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<sup>6</sup> See for example: Edwards RR, Moric M, Husfeld B, et al. (2005). Ethnic similarities and differences in the chronic pain experience: a comparison of African American, Hispanic, and White patients. *Pain Med*, 6, 88–98; Sheffield D, Biles PL, Orom H, et al. (2000). Race and sex differences in cutaneous pain perception. *Psychosom Med*, 62, 517–523; Watson PJ, Latif RK, Rowbotham DJ. (2005). Ethnic differences in thermal pain responses: a comparison of South Asian and White British healthy males. *Pain*, 118, 194–200.

<sup>7</sup> The results of this study are interesting and relevant to the discussion of how pain is such an individual and personal experience that is extremely difficult to measure. It is important to note the dangers that could arise from generalizing the findings of a study such as this one to influence the medical treatment of different ethnic groups.

### *Influences of Pharmaceutical Companies*

While sociocultural factors can have an impact on the way that patients express their symptoms to their physicians, certain aspects of society can shape the expectations that patients have for how they feel they should be treated. One of the most significant factors in this (especially in the U.S.A.) is advertisements by large pharmaceutical companies. Healthcare is a massive and ever-growing industry in both the German and American economies. Healthcare spending amounted to 11.2% of Germany's gross domestic product in 2014, while it accounted for 17.8% of the GDP of the U.S.A. in 2015 (Verband Forschender Arzneimittelhersteller, 2017, p. 4 and Schumock et al., 2017, p. 1158). Because of the huge potential for profit in this field, there is a strong incentive for pharmaceutical companies to promote their products to consumers and physicians alike. However, the impact of pharmaceutical marketing has a much stronger influence on pain treatment in the United States than in Germany because the U.S.A. is one of only two nations worldwide (the other being New Zealand) that allows direct-to-consumer advertising (DTCA) of prescription medications (Fain and Alexander, 2014, p. 292)<sup>8</sup>.

A relaxation in the FDA's stance on drug advertising regulations in 1997 led to a surge in broadcast DTCA in the following years. According to Fain and Alexander's 2014 paper, DTCA, "...comprised approximately 13% of total promotional spending in 2012, including print advertisements, detailing, and drug samples" (Fain and Alexander, 2014, p. 291). There have been several studies that highlight different ways that these types of advertisements can impact

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<sup>8</sup> It is not uncommon for the laws against DTCA to be circumvented in Germany through creative means by pharmaceutical companies. Some examples of this are examined in these two media-based sources: Die Tricks der Pharmaindustrie. (2008, May 8). *Kontraste*. Retrieved May 13, 2018 from: [https://www.rbb-online.de/kontraste/ueber\\_den\\_tag\\_hinaus/gesundheit/die\\_tricks\\_der\\_pharmaindustrie.html](https://www.rbb-online.de/kontraste/ueber_den_tag_hinaus/gesundheit/die_tricks_der_pharmaindustrie.html)  
Dowideit, Anette. (2016, December 30). Die zweifelhaften Empfehlungen des ominösen Micha. *Welt*. Retrieved May 13, 2018 from: <https://www.welt.de/wirtschaft/article160687596/Die-zweifelhaften-Empfehlungen-des-ominoesen-Micha.html>

how a patient is treated<sup>9</sup>. One often referenced and, in this context, highly relevant study from 2002 of the effects of DTCA on physician and patient behavior in Vancouver and Sacramento found that patients who had more exposure to such advertising requested more prescriptions. Additionally, patients who made those requests were more likely to receive at least one new prescription, even though their physicians reported that half of those prescriptions would only be “possible” or even “unlikely” options for similar patients who did not request them (Mintzes et al. p. 405). This particular study is of note because the physicians themselves acknowledged that the prescriptions that they were writing were perhaps not the optimal treatments, yet they still prescribed them based on their patients’ requests.

Additionally, Fain and Alexander describe in their paper the results of an experiment conducted on 192 primary care physicians in the United States who were randomized to clinical scenarios where patients symptomatic of chronic osteoarthritis or sciatica either actively requested a specific medication or gave a passive request for pain relief. One of every five doctors reported they would prescribe oxycodone when a sciatica patient was specifically requesting the drug, which is 20 times more likely than physicians in the same clinical scenario when patients made a passive request for pain treatment. When patients diagnosed with osteoarthritis requested Celebrex, 53% of physicians reported they would give a prescription for the drug<sup>10</sup>, as compared to only 25% who said they would do so when their patients made a passive request for pain relief (Fain and Alexander, 2014, p. 292). This is extremely significant

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<sup>9</sup> See also: S. J. Becker, & M. M. Midoun. (2016). Effects of Direct-to-Consumer Advertising on Patient Prescription Requests and Physician Prescribing: A Systematic Review of Psychiatry-Relevant Studies. *The Journal of Clinical Psychiatry*, 77(10), 1293–1300., J.-C. B. Pilon & B. Williams-Jones (2015). Regulating Direct-to-Consumer Drug Information: A Case Study of Eli Lilly’s Canadian *40over40* Erectile Dysfunction Campaign. *Healthcare Policy*, 10(4), 16–23., and J. B. McKinlay, F. Trachtenberg, L. D. Marceau, J. N. Katz, & M.A. Fischer (2014). Effects of Patient Medication Requests on Physician Prescribing Behavior: Results of a Factorial Experiment. *Medical Care*, 52(4), 294–299.

<sup>10</sup> This drug is a NSAID, not an opioid. The paper does not specify whether the prescriptions were for the specific brand Celebrex or other generic formulations of the celecoxib compound.

because it suggests that marketing by pharmaceutical companies seems to have real impacts on healthcare decisions. In the words of Fain and Alexander, “These differences are not just statistically significant, but clinically significant as well” (Fain and Alexander, 2014, p. 292).

The FDA published an article entitled “The Impact of Direct-to-Consumer Advertising” in 2015 that reports the results of recent surveys the agency had conducted to, “...help the agency decide whether advertising rules need to be changed to ensure better consumer understanding of a prescription drug’s risks and benefits” (U.S. Food and Drug Administration, 2015)<sup>11</sup>. Notable findings from these surveys were that only 40 percent of the 500 physician participants think that their patients understand the possible risks of drugs they learned about through DTCA, and 65 percent reported that DTC advertisements actually confuse patients about the relative positives and negatives of prescription medications (2015)<sup>7</sup>. Perhaps most significantly, about three-fourths of the respondents reported that it was their opinion that patients think that prescription drugs promoted through DTCA are more effective than they truly are (FDA, 2015)<sup>7</sup>. When the results of the FDA’s survey are considered along with the experimental findings by Fain and Alexander and Mintzes et al. regarding physician prescribing behavior of requested medications, a very clear problem seems to emerge. In the United States, pharmaceutical companies are able to directly advertise prescription medications to patients who are not fully educated about the relative risks or benefits of those medications. The information in the advertisements makes patients more likely to request prescriptions for those drugs from their healthcare providers. Then, as the studies referenced here suggest, providers seem to be significantly more likely to write prescriptions when they are specifically requested to prescribe

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<sup>11</sup> U.S. Food and Drug Administration (FDA). <https://www.fda.gov/Drugs/ResourcesForYou/Consumers/ucm143562.htm> [Last accessed March 30, 2018]

a particular medication. This implies that pharmaceutical companies seem to have a significant impact on patient care decisions if they have effective advertising.

These findings make it clear that American consumers can be significantly affected by pharmaceutical advertising, however, German consumers seem to have a lower likelihood of this. As mentioned previously, DTCA for prescription drugs is not allowed in Germany, however, advertising for non-prescription medications does occur. In spite of this, the results of a 2007 study by Diehl et al. comparing the skepticism of consumers in America and Germany toward pharmaceutical advertising indicate that, “U.S. consumers appear to be less skeptical toward advertising in general, and toward advertising for prescription and non-prescription drugs in particular, than German consumers” (Diehl et al., 2007, p. 31). The authors further posit that this could be due to cultural differences regarding uncertainty avoidance. German consumers generally have a higher level of uncertainty avoidance and are therefore less likely to desire to use a product (or medication) when they feel that its advertisement does not provide enough informational content (Diehl et al., 2007, 31). Therefore, advertising by pharmaceutical companies could have the opposite effect in Germany than it does in the U.S.A. While American consumers seem to be more likely to request drugs they have seen in DTCA, Germans tend to be more skeptical of such advertising when they do not fully understand the drug’s effects. This, coupled with the prohibition of DTCA for prescription medications in Germany removes or at least limits the direct influence of pharmaceutical companies on German consumers.

### *Effect of Medical Education*

Physicians’ understanding of pain is naturally tied to their educational background, and medical school curricula can have varying approaches to pain education. The path to becoming a

physician in the U.S.A. is quite different from its German counterpart, and certain aspects of how medical education is run in the two countries have led to some discrepancies between how certain areas of medicine are taught. The following section will offer a comparison of the medical education systems in the United States and Germany and a discussion of how certain differences between those education systems affect pain treatment.

Perhaps the most distinct difference in the two systems of medical education is the source of their funding. In the United States, the responsibility falls on the student to pay tuition to attend medical school, which consists of two years of didactic science learning followed by two years of clinical rotations. The Association of American Medical Colleges (AAMC) expressed in their 2017 report that the average price tag for the first year of tuition, fees, and health insurance for a medical student in the U.S.A. totals to \$53,216 (AAMC)<sup>12</sup>. Further, this cost of attendance is incurred after receiving a bachelor's degree that also requires tuition payment. In Germany, however, the vast majority of medical schools are tax funded and require no tuition fees for their students (Zavlin et al. 2017, p. 1/12). Also, German medical education begins directly after high school, so German physicians are not required to have a bachelor's degree before admission to medical school. This is because the science and math requirements for an American B.A. are satisfied by German students with the completion of the Abitur at the end of high school. Once they have matriculated in medical school, German students will have two years of pre-clinical science learning, followed by four years of clinical rotations.

The state funding of German medical education has many impacts on how German physicians are taught. For example, the German government must approve new additions to the medical school curriculum in order for any changes to be made. This process has been especially

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<sup>12</sup> Association of American Medical Colleges (AAMC) <https://www.aamc.org/data/tuitionandstudentfees/> 2012-2013 through 2017-2018 report. [Last accessed March 22, 2018]

slow in the area of pain and palliative care education. A 2002 survey of medical schools in Britain, Canada, the U.S.A., and Germany on their curriculum regarding palliative care found that all of the countries had similar percentages of medical institutions that gave formal lectures and reading material in that field. However, Germany had the lowest percentage of schools with an elective rotation in palliative care, and they did not have any schools that had mandatory rotations in the area of palliative care (Ostgathe et al., p.14). The German Association for Palliative Care (DGP) published a curriculum for physicians and medical students as early as 1996 with the goal of improving the standard care of seriously ill people: “Der Basiskurs Palliativmedizin soll dazu beitragen, die Regelversorgung (schwer)kranker Menschen zu verbessern” (Hecker et al., 1996, p. 2)<sup>13</sup>. However, education on topics like chronic pain did not become a requirement for medical licensure in Germany until 2012, and these amendments to the licensure laws brought with them a mandate that chronic pain education must be implemented into the medical school curriculum by 2016 (Dusch et al., 2013, p. 389). A 2015 study on the advancement of pain education in Europe found that only 14% of German medical schools in the study had a compulsory pain module, while 26% had an elective module (Briggs et al., 2015, p. 5).

Pain education in American medical schools also remains fairly limited. Pain curricula as a part of medical education been proposed for the past thirty years, yet they are still rarely implemented (Tauben and Loeser, 2013, p. 431). An extensive 2011 survey of pain education content in North American medical schools by Mezei and Murinson found that only 3.8% of the 104 U.S. medical schools surveyed had a required pain course, and 16.3% offered elective courses (Mezei and Murinson, 2011, p. 431). Mezei and Murinson posit: “There are inarguable

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<sup>13</sup> Deutsche Gesellschaft für Palliativmedizin (DGP). [https://www.dgpalliativmedizin.de/images/stories/pdf/basiskurs\\_%E4rzte.pdf](https://www.dgpalliativmedizin.de/images/stories/pdf/basiskurs_%E4rzte.pdf) [Last accessed March 22, 2018]

links between the undertreatment and the maltreatment of pain and the lackluster state of pain education in medicine” (Mezei and Murinson, 2011, p. 431). Based on their findings, Mezei and Murinson propose changes to the licensing examinations to assess physicians’ knowledge of pain management methods (Mezei and Murinson, 2011, p. 432). In 2011, the U.S. Institute of Medicine published a report on pain treatment in America, and in the discussion on physician education, it is discussed how their evaluations of medical schools found large inconsistencies in how material was taught, “...across medical schools, among departments in the same school, and even within departments” (IOM, 2011). The report also highlighted major flaws in medical school curricula, such as “...a lack of breadth in the presentation of the topic, a lack of integration of basic science and clinical knowledge, and a lack of clinical role models – especially specialists treating chronic pain – in most academic medical centers” (IOM, 2011).

The differences in pain curricula in medical schools in Germany and the United States are not as stark as one might expect based on the differences in opioid prescribing rates between the two nations. Both countries’ medical education systems have somewhat limited requirements for pain curricula, and although this has been identified by the governments of both nations, major changes to correct this have been slow. This could indicate that German physicians are not necessarily educated to treat pain in a different manner than physicians in the United States, meaning that it is unlikely that American physicians are simply taught to prescribe more opioids than their German counterparts. Instead, there are likely other factors that have led to the development of the opioid crisis in America and not in Germany. The following chapter will explore some of those factors.

### Chapter Three:

#### *Treatment of Pain and the Opioid Crisis*

The United States is facing an ever-growing problem of overdose deaths. In 2015, 52,404 Americans (approximately 160 per million citizens) died from drug overdoses, and almost 45% of those deaths (22,598) were caused by prescription opioid painkillers (National Institute on Drug Abuse, 2017)<sup>14</sup>. Contrastingly, Germany had only 1,226 (approximately 14 per million citizens) overdose deaths in total in 2015, 80% of which occurred with some form of opioids present, prescription or not (European Monitoring Centre for Drugs and Drug Addiction, 2017, p. 9)<sup>15</sup>. While the problem of fatal overdoses is not a uniquely American one, it seems that the United States is facing it on a much larger scale, as the differences in numbers of overdoses per million citizens is more than ten times higher in the U.S.A.<sup>16</sup>

It seems to be important to highlight that there is a distinction between the terms ‘opioid’ and ‘opiate.’ Opioid is the general term for any drug that acts on the opioid receptors of the brain, while opiate more specifically refers to the subset of opioids that are either derived from the poppy plant (such as morphine or codeine) or are synthesized from other opiates that are found in poppy (such as heroin) (Bloom, 2017). Given the fact that the United States is by far the largest consumer of prescription opioids worldwide, it is not surprising that they also have the highest rates of overdose deaths due to prescription opioids. However, Germany is also a world

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<sup>14</sup> National Institute on Drug Abuse (NIDA) <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates> [Last accessed March 9, 2018]

<sup>15</sup> European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) <http://www.emcdda.europa.eu/system/files/publications/4528/TD0416906ENN.pdf> [Last accessed February 13, 2018]

<sup>16</sup> While the focus of this study is to compare the United States and Germany, it is helpful to understand these statistics in a global context. The EMCDDA report cited above shows that Germany’s overdose death rates are only slightly higher than the EU average by about two deaths per million adults, while the United States is the world leader in overdose deaths with a death rate per million citizens that is more than an order of magnitude higher than the average for nations in the EU.

leader in terms of opioid prescription. The International Narcotics Control Board (INCB) ranks Germany as the third largest consumer of narcotics worldwide and the largest in Europe (INCB, 2017, p. 230)<sup>17</sup>. The INCB's 2017 report on worldwide drug consumption shows that Americans consume about 60% more narcotics than German citizens<sup>18</sup>. Even though Germany is one of the world's largest consumers of prescription opioids, the United States is on an entirely different level. While my discussion of pain thus far has focused on the influence of cultural differences, this section will highlight the impact of the political differences between the countries on the massively important public health issue of prescription opioid abuse.

Historically, the relationship between American physicians and opioids has been rocky. Early opioid development occurred in Europe, with many large strides coming out of Germany. Morphine, the compound isolated from opium by German scientist, Friedrich Sertürner, was used as the standard treatment for both acute and chronic pain issues throughout the 19<sup>th</sup> century (Meldrum, 2003, p. 2471). By the end of the 19<sup>th</sup> century, the Bayer company had developed another opiate compound, heroin, as a potentially less addictive alternative to morphine to be used as a cough suppressant (Meldrum, 2003, p. 2471). Soon, it became clear that both morphine and heroin had high rates of addiction and the spread of their street use began to raise significant public health concerns. Foster Kennedy described this in the *New York Medical Journal* in 1914 when he wrote, "Morphinism is a disease, in the majority of cases initiated, sustained, and left uncured by members of the medical profession" (*The Effects of Narcotic Drug Addiction*, p. 20). In response to this, the American government passed several major laws to control the growing problem of opiate addiction in the early 20<sup>th</sup> century. The Harrison Act of 1914 levied a tax on

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<sup>17</sup> International Narcotics Control Board (INCB). [https://www.incb.org/incb/en/narcotic-drugs/Technical\\_Reports/narcotic\\_drugs\\_reports.html](https://www.incb.org/incb/en/narcotic-drugs/Technical_Reports/narcotic_drugs_reports.html) 2017 report [Last accessed April 4, 2018]

<sup>18</sup> A difference in scale is of note here: the overdose death rate in America is about 11 times higher than that of Germany, while the opioid prescribing rate is 1.6 times higher in the United States.

manufacturers and distributors of opiates and required pharmacists and physicians to register with the government in order to be able to offer prescriptions for opiates (Harrison Act, 1914). Additionally, the Heroin Act of 1924 prohibited the importation, manufacture, or possession of heroin, even for medicinal use (NAABT, 2013)<sup>19</sup>. Later legislation, such as the Controlled Substances Act of 1970, which classified drugs into five schedules based on their potential to be abused, medical uses, and safety, as well as the formation of the Drug Enforcement Agency in 1973 ushered in the “War on Drugs” (Nixon, 1971 and Exec. Order No. 11727, 1973). This made many American physicians fearful to prescribe opiates at all, even developing into what has been coined opiophobia, which has been defined as “... an irrational and undocumented fear that appropriate [opioid] use will lead patients to become addicts” (Morgan, 1985, p. 163).

In response to this, pain specialists strove to limit physicians’ aversion to opioids to prevent the undertreatment of patients who were suffering from severe pain. In 1982, researchers with the World Health Organization developed the analgesic ladder, which recommends that physicians treat patients’ pain in the progression of three steps: first with NSAID’s, followed by weak opiates (such as codeine), and then with stronger opiates, such as morphine, oxycodone, or hydrocodone (Meldrum, 2003, p. 2474). Additionally, studies such as Jick et al.’s “Comprehensive Drug Surveillance” in 1970 and by Portenoy and Foley’s “Chronic use of opioid analgesics in non-malignant pain: report of 38 cases” from 1986 raised doubts of the real dangers of addiction developing after being treated with opioids. Portenoy and Foley even concluded, “...opioid maintenance therapy can be a safe, salutary and more humane alternative to the options of surgery or no treatment in those patients with intractable non-malignant pain and no history of drug abuse” (Portenoy and Foley, 1986, p. 171). Because of this emphasis on

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<sup>19</sup> The National Alliances of Advocates for Buprenorphine Treatment (NAABT) <http://www.naabt.org/laws.cfm> [Lat accessed April 5, 2018]

the effectiveness of opioids for treating pain, the 1980s were a momentous time for the area of palliative medicine, and research that focused on the safety of opioid use served as a catalyst for physicians to use opioids more often for chronic pain issues (Rosenblum et al., 2009, p. 405).

During the 1990s and beyond, there would be a shift from fears of undertreating patients' pain to there being strong indications that opioids were actually being prescribed too liberally as their use in pain treatment of pain became more widely acceptable within the American medical community (Rosenblum et. al, 2009, p. 405). One major impetus for the shift in attitude toward the use of opioids came in 1995 when James Campbell, then president of the American Pain Society (APS), proposed the idea of having pain considered to be "the fifth vital sign" during his Presidential Address to the APS (Morone et al., 2013, p. 1728). The idea was to emphasize the importance of understanding pain as essential information to providing proper care, and this notion became popular among prominent medical organizations such as the Joint Commission and the Veterans Health Administration (2013, p. 1728). This emphasis on managing patients' pain by leaders in the medical community, along with the reports in medical literature like those by Jick et al. and Portenoy and Foley that emphasized opioids' efficacy in treating pain while minimizing their risk for addiction allowed physicians to feel more comfortable with prescribing opioids. This resulted in a sharp increase in their prescription. A 2014 National Institute on Drug Abuse study entitled "Opioid Overdose Crisis" shows that the number of opioid prescriptions dispensed by retail pharmacies in the U.S. rose steadily through the 1990s, increasing from 87 million prescriptions in 1995 to 126 million in the year 2000 (NIDA, 2018)<sup>20</sup>.

The climate was just right for pharmaceutical companies to take full advantage of the FDA's choice to relax restrictions on drug advertising in 1997. The prescription drug that has

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<sup>20</sup> National Institute on Drug Abuse (NIDA) <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis> [Lat accessed April 5, 2018]

gained the most notoriety for its advertising over the years is OxyContin<sup>21</sup>, which was produced by Purdue Pharma and was approved for use by the FDA in 1995. The company would eventually be cited twice by the FDA for "...using potentially false or misleading medical journal advertisements for OxyContin" (Jayawant and Balkrishnan, 2005, p. 80). These advertisements would have primarily been seen by physicians, however, Purdue Pharma was also the subject of controversy because of their advertisements directed at patients. The company distributed a promotional video for Oxycontin in 1998 without submitting it for FDA approval (as is required), and in 2002, the FDA evaluated another of their promotional videos "... and found that the video minimized the drug's risks and made unsubstantiated claims" (Jayawant and Balkrishnan, 2005 p. 80). In 2007, Purdue Pharma pled guilty in federal court to "...illegally misbranding OxyContin in an effort to mislead and defraud physicians" (Griffin and Miller, 2011, p. 217). This led to over \$600 million in fines being paid by the company to the federal government and the Commonwealth of Virginia (Griffin and Miller, 2011, p. 217). While OxyContin was by no means the only prescription opioid that was being abused during this time, it was likely the object of the most media attention. The history of OxyContin serves as an excellent illustration for how drug companies' ability to advertise directly to physicians and patients, coupled with the medical community's changing opinions toward opioids in the 1990s, immensely contributed to the beginnings of the opioid crisis in America.

#### *Differences in how Opioids are Prescribed in the U.S.A. vs. Germany*

Germany's rate for overdose deaths is much lower than that in U.S.A., and there are several potential factors, such as the lack of DTCA in Germany and the nation's tighter

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<sup>21</sup> OxyContin is the brand name for oxycodone hydrochloride that is produced by Purdue Pharma. The drug is designed to give a prolonged release of oxycodone over a 12-hour period (Jayawant and Balkrishnan, 2005, p. 77).

regulation of opioid prescribing, that could contribute to this difference. It does not seem that physician education is a significant contributor to the discrepancy in prescription opioid abuse because (as I have discussed above in Chapter Two) the quality of pain education for physicians in Germany is not vastly different from that in the U.S.A. This chapter will highlight some of the most notable differences between the American and German healthcare systems that likely contribute to the discrepancies in the rate of prescription opioid abuse between the two nations.

Americans on average consume almost double the number of prescription narcotics as Germans per day, adjusted for population size (INCB, 2017, p. 230)<sup>22</sup>. This lower rate of opioid prescription likely has a significant impact on the levels of abuse of those prescription drugs. The fact that DTCA to both physicians and patients for prescription pharmaceuticals is not permitted by law in Germany also likely contributes to the lower rates of opioid prescribing. There is also evidence that the ways that German physicians prescribe opioids could mediate the risks of prescription drug abuse. In a 2017 interview with *Deutsche Welle*, Lukas Radbruch, president of the German Association for Palliative Care, describes what he considers to be a major difference between the U.S. and German healthcare systems: While German patients who are treated with opioids for severe acute pain would likely be weaned off of them in about two weeks, their American counterparts would likely be sent home with an opioid prescription for double that time (Radbruch, 2016)<sup>23</sup>. Radbruch then posits that German patients with such severe cases of acute pain would have a lower chance of becoming addicted to opioids because their insurance would allow for more comprehensive follow-up assessments in many cases.

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<sup>22</sup> International Narcotics Control Board (INCB). [https://www.incb.org/incb/en/narcotic-drugs/Technical\\_Reports/narcotic\\_drugs\\_reports.html](https://www.incb.org/incb/en/narcotic-drugs/Technical_Reports/narcotic_drugs_reports.html) 2017 report [Last accessed April 4, 2018]

<sup>23</sup> <http://www.dw.com/en/why-germany-doesnt-have-an-opioid-crisis/av-41296027> [Lat accessed February 13, 2018]

Although Radbruch does not quote scientific data in this interview, these are still interesting observations that seem to correlate with Germany's lower rates of opioid prescription and abuse compared to the United States. Over-prescription of opioids by physicians is an issue that has gained attention in the American medical community in recent years. In their 2017 article, "Overprescribing is major contributor to opioid crisis," Makary et al. examined the common practice by surgeons of prescribing 30-60 opioid tablets (usually oxycodone) to patients following elective laparoscopic cholecystectomies. They report that most often, these prescriptions come with instructions to "...take 5-10mg as needed every 4-6 hours for pain" (Makary et al., 2017, p. 98). However, Makary et al. add that by following these instructions, the patients will be taking, "... a dose nearly double the threshold above which the US Centers for Disease Prevention and Control cautions a twofold increased risk of overdose" (Makary et al., 2017, p. 98). Makary et al. posit that these kinds of blatant mistakes could sometimes be attributed to the advent of electronic medical record systems that auto-fill default prescription quantities and instructions (Makary et al., p.98). There are also indications that American physicians are routinely over-prescribing in terms of the course of opioids they are giving to their patients. As-Sanie et al.'s 2017 study found that gynecologists at a large teaching hospital write prescriptions for double the amount of opioids than the average patient actually uses after a hysterectomy (As-Sanie et al., p. 1265). This is especially alarming in light of a 2017 study from the University of Michigan, Ann Arbor entitled "New Persistent Opioid Use After Minor and Major Surgical Procedures in US Adults" in which Brummett et al. found that about one in every 16 surgical patients becomes a chronic opioid user (Brummett et al., p. e170504). The researchers reported that chronic opioid use is significantly associated with behavioral and pain disorders, and they posit that their findings indicate that the development of chronic opioid use,

“...is not due to surgical pain but [rather to] addressable patient-level predictors” (Brummett et al., 2017, p. e170504). As the medical community in America has made a shift toward focusing more on controlling and even – as much as possible – eliminating pain altogether, there has been a major increase in the rates that opioids are being prescribed (Morone et al., 2013, p. 1728). This has added the risk of long term opioid dependence to the list of potential complications stemming from surgical procedures.

Physicians in Europe are much less likely to over-prescribe opioids in general because European nations regulate the prescription of opioids more tightly than the U.S.A. In their article, “Non-medical use of prescription opioids and prescription opioid-related harms: why so markedly higher in North America compared to the rest of the world?,” Fischer et al. report that some of the regulatory measures that are more common to European nations include, “...more extensive structural restrictions and control for [prescription opioids], e.g. authorized prescriber limitations, time-limits and more restrictive indications for prescriptions [and] formulary...” (2014, p. 178) They also explain how Germany relies on the International Narcotics Control Board’s “defined daily doses for statistical purposes” to regulate its opioid prescribing rates (p. 178). This leads to physicians using more highly potent drugs (such as fentanyl) in smaller quantities at a lower frequency. Fischer et al. report that this method translates into fewer opportunities for non-medical prescription opioid use, since there are simply fewer prescription opioids available in the population (2014, p.179).

When these more extensive regulations that are commonplace at the national level in Europe are compared to America’s Controlled Substances Act, some stark differences become apparent. In the United States, when a physician prescribes a Schedule II substance (the prescription drug class that is considered to have the highest potential for abuse), there is no

federal time limit in which that prescription must be filled, and there are no limits to the quantity of drugs that can be prescribed (Rannazzisi and Caverly, 2006)<sup>24</sup>. Rather than enacting their own regulatory measures, the United States federal government defers to state governments and insurance carriers to limit the amounts of prescription drugs, including opioids, that should be allowed to be filled. Therefore, many states have adopted the use of state-run prescription monitoring programs (PMPs) to assess and potentially control the prescribing habits of physicians, and these PMPs have proven to be somewhat effective (Bao et al., 2016, p. 1045). For example, Bao et al. found in their 2016 study that the use of such PMPs was correlated with a greater than 30 percent decline in the prescription of Schedule II opioids between 2001 and 2010 (Bae et al., 2016, p. 1048). These findings are interesting because there was no uniform change in prescribing regulations, but the implementation of these PMPs still significantly impacted physician prescribing habits. Bao et al. posit that this decrease in Schedule II prescriptions could be due to an increased level of awareness about controlled substance abuse that came with the utilization of PMPs or that simply by knowing their prescribing habits were being chronicled, physicians were less likely to prescribe Schedule II opioids – much like the effect of Bentham’s Panopticon (Bao et al., 2016, p. 1049).

It is important to note that PMPs are simply in place to collect data, not dictate physician behavior. Even though the use of these programs has been correlated with a reduction in the amounts of Schedule II opioids being prescribed by American physicians, these drugs are still being prescribed at massively higher rates in the U.S.A. than in Germany where physicians are more legally restricted in how they are allowed to prescribe controlled substances (INCB, 2017,

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<sup>24</sup> The most recent Practitioner’s Manual that outlined the regulations of the Controlled Substances Act for physicians was published by the Department of Justice in 2006.

p. 230)<sup>25</sup>. It seems that Dr. Radbruch's above referenced claims hold weight. While physicians in the United States have been shown to prescribe too many opioids for fear of undertreating their patients' pain, European nations have enacted more extensive measures to limit the supply of opioids that are available to the public, while still focusing on providing adequate treatment.

### *Treating Addiction vs. Punishing it*

While much of my discussion in this chapter thus far has focused on ways of preventing opioid abuse, I will now examine how patients who are suffering from addiction to opioids are being treated in the U.S.A. and Germany for their addiction. Much like disease, addiction is a very difficult concept to adequately comprehend, and different interpretations of it can lead to varying regulatory mechanisms at the national level to control and prevent it (Badiani, 2014, p. 3923). In the United States, drug abuse and addiction are generally seen as criminal offenses, whereas in Germany, addiction is viewed more as a medical problem that needs treatment (Wood et al, 2009, p. 990 & EMCDDA, p. 12). The American tradition of waging the "War on Drugs" has promoted a mindset that punishing drug use is the best way to mitigate addiction and abuse (Wood et al., p. 989). However, Wood et al. dispute this notion in their article, "The war on drugs: a devastating public-policy disaster," by saying that the U.S.A., Russia, and China have some of the most severe drug laws, but nevertheless, they also have the largest numbers of IV drug users (2009, p. 990). By placing such a strong focus on punishing drug use of any kind, these punitive drug laws often create barriers for addicts to seek and find treatment.

While most opioid abusers become addicted through the use of prescription opioids, they are likely turn to illicit opioid alternatives that are cheaper, easier to access, and more potent if

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<sup>25</sup> International Narcotics Control Board (INCB). [https://www.incb.org/incb/en/narcotic-drugs/Technical\\_Reports/narcotic\\_drugs\\_reports.html](https://www.incb.org/incb/en/narcotic-drugs/Technical_Reports/narcotic_drugs_reports.html) 2017 report [Last accessed April 4, 2018]

they are no longer able to obtain those prescriptions (NIDA, 2018)<sup>26</sup>. Beletsky and Davis attribute this to the poor “comprehensive spectrum of care” to treat those struggling with opioid use disorder (2017, p. 156). In an attempt to control these increases in illicit substance abuse, there have been moves by American prosecutors to enact harsh criminal penalties on dealers and fellow users of overdose victims, which has led to massive amounts of incarcerations; however there is little evidence that these actions have had any sort of positive impact on the “worst drug-related crisis in US history” (Beletsky and Davis, 2017, p. 157). Unfortunately, with these harsher penalties, there have not been significant improvements in providing treatment for addicted individuals (National Survey on Drug Use and Health, 2013, p. 93). The 2013 National Survey on Drug Use and Health found that only 10.9% of Americans who needed treatment for an illicit drug or alcohol use problem were treated in a specialized facility in the previous year, and this figure is comparable to the data from 2002 through 2012 (National Survey on Drug Use and Health, 2013, p. 93). Additionally, there is evidence that the U.S. prison system poorly maintains addiction treatment for individuals who are already enrolled in treatment programs prior to being incarcerated (Rich et al., 2015, p. 350). In 2015, Rich et al. examined the effect of allowing addicted individuals to continue methadone treatment while in prison versus forcing the prisoners to withdraw by discontinuing their methadone treatment<sup>27</sup>. In Rich et al.’s study, prisoners who were allowed to continue their methadone treatment while incarcerated were more than twice as likely to re-enroll in a community methadone clinic upon release than the other experimental group (Rich et al., 2015, p. 355). These findings are significant because “...most

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<sup>26</sup> National Institute on Drug Abuse (NIDA) <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis> [Last accessed April 5, 2018]

<sup>27</sup> Methadone is an opioid that is often used to treat opioid dependence in substitution therapy. It is effective in reducing symptoms of opioid withdrawal, decreasing opioid cravings, and blocking the effects of illicit opioids (American Addiction Centers, n.d.). <https://americanaddictioncenters.org/methadone-addiction/clinic-facts/> Last accessed May 2, 2018]

U.S. correctional facilities discontinue [inmates'] methadone treatment, either gradually, or more often, abruptly," thereby decreasing the inmates' chances of re-entering treatment post-release (Rich et al., 2015, p. 350). The results of this study by Rich et al. and the indications from the National Survey on Drug Use and Health that enrollment rates into addiction treatment did not improve for an entire decade are extremely troubling. These trends indicate that while punishments have become more severe for drug abusers and misusers in the United States, the efforts to curb addiction both prior to and during incarceration are still lacking.

While American efforts to prevent drug abuse have focused on a harsher crackdown on drug-related crime, a different trend of allowing lighter punishments by prosecutors and emphasizing rehabilitation has been seen in Germany (BtMG, §10a & §29)<sup>28</sup>. An amendment to the German *Betäubungsmittelgesetz* (Narcotic Drugs Act) in 2000 brought about significant changes to the national drug policy. Firstly, the amendment allowed the German *Länder* (federal states) to establish drug consumption rooms where people who are addicted can bring and use drugs for which they do not have a prescription in a controlled environment under the supervision of trained medical personnel (BtMG, §10a). There are provisions within the amendment that require these drug consumption rooms to ensure certain minimum requirements of safety, which promotes the use of these rooms among addicted individuals for their own well-being (§10a)<sup>24</sup>. As of 2017, 6 of the 16 *Länder* had opened drug consumption rooms, with a total of 23 drug consumption rooms in the nation as well as one mobile drug consumption vehicle that operates in Berlin (EMCDDA, 2017, p. 12)<sup>29</sup>. The European Monitoring Centre for Drugs and

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<sup>28</sup> Betäubungsmittelgesetz (BtMG) [https://www.gesetze-im-internet.de/btmg\\_1981/index.html#BJNR106810981BJNE007000320](https://www.gesetze-im-internet.de/btmg_1981/index.html#BJNR106810981BJNE007000320) Sections 10a, 29, and 31a. [Last accessed April 16, 2018]

<sup>29</sup> European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) <http://www.emcdda.europa.eu/system/files/publications/4528/TD0416906ENN.pdf> [Last accessed February 13, 2018]

Drug Addiction (EMCDDA) reports that these drug consumption facilities are well-documented in their efficacy in maintaining contact with the marginalized populations of addicts, and in doing so, they are able to promote enrollment into addiction treatment programs (2017, p. 11)<sup>25</sup>. Their implementation has also been correlated with reduced syringe sharing and increased enrollment in drug dependence or detoxification treatment (EMCDDA, 2017, p. 12)<sup>25</sup>. At this point, the United States does not have any such drug consumption rooms within its borders, however, Barbara Garcia, the director of San Francisco's Department of Public Health, reports that the city is on track to open its first two safe injection sites in July of this year (Knight, 2018). These drug consumption rooms are now permitted by law in the state of California after the passage of Assembly Bill 186 in 2017 by the California State Legislature (AB-186 Controlled substances: safer drug consumption program, 2017).

The second major provision from the Narcotic Drugs Act's 2000 amendment was the decriminalization of possessing small amounts of controlled substances, as have been defined by the Federal Courts of Justice (§29)<sup>24</sup>. This amendment allows prosecutors and courts to refrain from prosecution if citizens are found to be in possession of drugs within those limits for personal use. The law also prevents the prosecution of people for use or possession of drugs in the drug consumption rooms (§31a)<sup>24</sup>. These amendments to the *Betäubungsmittelgesetz* underscore the goals of legal punishment in Germany. In his article that was published in *Zeitschrift für Menschenrechte*, "Strafe muss nicht sein," Daniel Loick discusses how certain acts could be decriminalized on the basis that they do not directly harm others when he writes:

Zunächst könnten schon aus liberaler Perspektive tatsächlich viele Straftatbestände problemlos wegfallen: Vergehen wie etwa der im deutschen Recht noch immer sanktionierte Inzest, Staatsschutzdelikte wie 'Verunglimpfung des Staates und seiner

Symbole‘, die Verbreitung von Pornographie oder Drogendelikte, auf deren Konto immerhin über 50 Prozent der Insassinnen und Insassen in den Bundesgefängnissen der USA gehen, sind allenfalls Verstöße gegen Moral und Sitte und bedürfen keiner staatlichen Zwangssanktionierung.” (2012, p. 36)

This sentiment is seen in those amendments to the German Narcotic Drugs Act discussed above, and Loick’s writing emphasizes the goal of the German law system to look at crime in a dynamic manner and provide citizens who exhibit deviant behavior with means for rehabilitation, rather than exclusively punishing that behavior (Loick, 2012, p. 35).

It seems like the differences in drug policies that have been considered and compared in this study stem from cultural differences regarding how addiction is viewed in both the German and American societies. While the United States has maintained the stance that drug use is wrong and should be eliminated through punitive measures, Germany has taken a less legalistic approach that promotes reaching out to those struggling with addiction instead of carrying out increasingly severe punishments on them. This falls in line with the general trend among European nations toward drug decriminalization. The most radical example of drug decriminalization is found in Portugal’s decision in 2000 to fully decriminalize narcotic use and possession (Domoslawski, 2011, p. 13). In Portugal, this decision underscores an ideological stance that addiction should be treated as a medical problem, not a legal one. As Domoslawski puts it, Portugal “...[placed] the responsibility for decreasing drug demand as well as managing dependence under the Ministry of Health, rather than the Ministry of Justice” (2011, p. 23). In the years following the government’s decision, the new drug policy has been a massive success, as HIV infection has slowed down during this time, and drug use among 15- to 19-year olds, the age group most at risk for developing chronic addiction, has actually decreased since

decriminalization (Domaslawski, 2011, p. 49)<sup>30</sup>. This discussion is not to claim that these responses by the Portuguese and German governments are the answers to the opioid crisis in America. Policies that are effective in certain contexts are often not universally effective. However, examining the fundamentally different approaches that Germany and the U.S.A. have taken to provide treatment to addicted individuals underscores the cultural differences in the ways that the two nations understand the nature of addiction and the role that the judicial and healthcare systems should have in providing addiction treatment.

### **Conclusion:**

Through this paper, I have discussed some of the ways in which culture shapes one's perception of disease and how this ties into a nation's collective understanding of how pain management should be carried out. Pain management is such a relevant discussion with regard to culture because the most effective medications for treating pain have a high potential for addiction and subsequent abuse or dependence. This makes the healthcare field overlap into the areas of public safety and criminal justice because the prescription of opioid medications can lead to subsequent narcotic addiction or dependence. It has been interesting to explore how the United States and Germany seek to balance the goal of providing comprehensive pain treatment while mitigating the risks of addiction and abuse. As stated in the introduction, the goal of this paper was not to judge the quality of the responses by the United States and Germany to these

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<sup>30</sup> See also: H. Laqueur (2014). Uses and abuses of drug decriminalization in Portugal. *Law and Social Inquiry*. 40, 746–781.

While Portugal's decision is often claimed to be extremely radical and effective in many 'before and after' kinds of analyses, Hannah Laqueur argues in her 2014 article, "Uses and Abuses of Drug Decriminalization in Portugal," that the drug law reforms in Portugal were actually more of a reflection of the de facto legal policies of the nation before the reforms took place. Additionally, she claims that the reforms have resulted in diminishing sanctions against drug traffickers.

issues, rather, this thesis offers an exploration of how cultural factors can translate into healthcare policy and have large-scale impacts for society.

Most of the differences between the governmental policies of the two nations regarding opioid abuse and addiction treatment could be attributed to their differing economic systems. Germany is a *soziale Marktwirtschaft* (social market economy) and considers itself a *Sozialstaat* that provides certain “social safety nets,” to its citizens, while the United States places more of an emphasis on keeping taxes low and leaving it up to the citizens to pay for certain services (such as healthcare) on their own (Walker and Thurow, 2009). In Germany, the tighter regulation of opioid prescribing, prohibition of DTCA of prescription medications, and the stronger emphasis on providing addiction treatment over punishing drug use all tie into goals of a *Sozialstaat*. Because the scale of the opioid epidemic in the United States is so large, comparing certain aspects of the country’s governmental policies regarding opioid abuse and addiction treatment and those of a similar nation such as Germany can be helpful in identifying possible areas where policy changes could be beneficial in fixing the opioid crisis.

There are several potential follow-up studies that could add to the findings of this paper to highlight certain changes that the United States could make to help mitigate the effects of the current opioid crisis. I have discussed above Germany’s trend towards decriminalizing illicit substance use in order to promote enrollment into addiction treatment programs over incarceration. One interesting follow-up to this study of how culture influences pain and pain management in the U.S.A. and Germany could be an analysis of how addiction treatment is financed in the two nations. The setup of the *Sozialstaat* in Germany would imply that the government is responsible for eliminating cost barriers for addiction treatment, and it would be enlightening to study the differences in cost for addiction treatment in the United States to that in

Germany. Such a study could reveal some changes that could be made in the United States to allow addicted individuals have easier access to care. The findings of this paper would also be supplemented by a follow-up study or survey that would capture the patients' perspectives on pain conditions and pain management in the two nations.

Additionally, an in-depth comparison of the structures of the German and American health insurance systems would likely provide some insights into many topics discussed in this paper, such as having access to opioids for both chronic and acute pain as well as having the financial means to pay for addiction treatment, which is often not covered by private insurers in the United States. Another follow up study that would add to the comparison presented in this paper would be an analysis of how drugs are represented differently through entertainment and art in the two nations. Art's portrayal of certain aspects of everyday life can be representative of a culture's perspective on how to deal with issues like pain treatment and narcotic addiction, and an in-depth analysis of this could further underscore certain aspects of the German and American cultures that translate in to the differences that exist in their governmental policies regarding opioid abuse and addiction.

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