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The Association of Patient Care Load and Health Inequities: A Comparison of Physicians in the United States, Germany, and Japan

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Introduction

An integral part to the success and advancement of a nation is the health of its population. To promote and regulate the health of a population, many nations have implemented a healthcare system that provides nearly everything to keep a person healthy. Within many of the high-income countries, such as Germany and Japan, the healthcare systems are very similar in that they provide universal healthcare coverage across the country. The United States, however, follows a more fragmented system, using both private and public health coverage. However, healthcare systems are not only just for those seeking medical help. Healthcare systems are two-sided—they provide help and compensation for people seeking medical care, and they also provide a set of rules and regulations for those administering the medical care, namely physicians. To fully understand the effects of healthcare on a nation's population, the healthcare systems of Japan, Germany, and the United States will first be compared.

The Japanese healthcare system is monitored by the Japanese government and covers all Japanese citizens, who are required to enroll for insurance according to either their employment status or place of residence ("2015 International…", 2016). Although Germany also implements a universal healthcare system, the structure is quite different from the Japanese system. The German healthcare system covers all legal residents of Germany, however, some have the option of choosing either public or private insurance based on their income status—employed residents who earn less than approximately €4,900 (USD69,760) per month are mandatorily covered by the SHI, while those whose salary exceed that threshold can choose to purchase PHI ("2015 International…", 2016). The United States' healthcare system, on the other hand, is not universal and therefore it does not cover all Americans. In 2014 it was reported that about 66 percent of

United States residents were covered by private voluntary health insurance, 55.4 percent were covered by their employers, and 14.6 percent of United States residents acquired coverage directly, leaving 10.4 percent of the population uninsured ("2015 International…", 2016). Although there are similarities in coverage amongst these three healthcare systems, there are still other aspects that make them unique in the type of system each country uses. In Japan, there is no real distinction between primary care and specialist care, and most clinics and hospitals provide primary care services with fees based on a national-fee-for-service schedule ("2015 International…", 2016). German medical fees are based off a slightly different system. The SHI coverage for all citizens is funded by competing, non-profit, and non-governmental funds called "sickness funds", while the PHI coverage is funded by those who choose to substitute SHI with PHI ("2015 International…", 2016). Since the United States healthcare system is fragmented between public and private coverage, the system is also financed in multiple ways. In 2010, the Patient Protection and Affordable Care Act (ACA) enacted "shared responsibility" between the government, employers, and individuals to ensure that Americans have access to affordable health insurance, thereby financing the healthcare system by the government and those who buy their own coverage ("2015 International…", 2016). These finances allow the healthcare systems of these three countries to provide the coverage and other aspects of healthcare to a population, including physicians. Physicians play a major role in the health of a population. Not only do they diagnose and treat patients, but they also conduct numerous other activities required by the regulations of healthcare. Physician activities have varying impacts on patient care load, which can ultimately contribute to a nation's health inequities. To assess the association of patient care load and health inequities, the activities of physicians across Germany, Japan, and the United

States will be assessed.

Physician Activities Based on Country

Education and Training

The role of the physician begins as early as when he or she begins training in medical school, and continues into their daily activities corresponding to the rules and regulations set by the government. In many respects, the quality of education and training that one receives can have a major impact on how he or she treats patients. To determine physician quality in relation to patient care load and health inequities, the medical training and education of each country must first be analyzed. The training between Germany, Japan, and the United States does have a few similar qualities, but for the most part varies in the administration and curricula of medical education.

In years past, German medical education served as a role model for other medical education systems however, more recently it is has been looking towards the systems of the United States, Canada, and other European countries to increase retention in their medical universities and the number of practicing physicians (Chenot, 2009). To achieve this, the German government has implemented several changes to their medical education system. One of the major changes that the German government made was increasing the cost to attend medical school. For years higher education, such as medical school, cost virtually nothing to admitted students however, a few universities have started charging up to €500 (USD438) of tuition per semester (Chenot, 2009). This is still a low cost compared to other countries, especially the United States, where medical education can cost hundreds of thousands of dollars. Other changes that the German government implemented pertain to the structure and curriculum of the medical

education system. In 2003 the government established a structural reform, known as the "Regulation of the Licensing of Doctors", which included changes in the curriculum such as incorporation of changed requirements in medical care, linkage of theoretical and clinical instruction, improvement of bedside training, reformation of examinations, and improving pain management and palliative care (Chenot, 2009). All of this was done in an attempt to increase the quality and quantity of German doctors. However to achieve the retention and quality of physicians that the German government wants, students must first be admitted to a medical university. The application process for a German medical university is much like that of other schools. The Germans have something similar to the American grade point average called the Abitur grade, which is highly considered in the application process because it predicts whether or not the student can successfully complete the required curriculum (Chenot, 2009). After screening of applications, a few select students are invited to the university for interviews, and since there is no set criteria for the entry into medical school a national examination, Test für Medizinische Studiengänge (TMS), can be taken to help aid in decisions (Chenot, 2009). This is very similar to the admission process of American medical universities, which is discussed below. In Germany, undergraduate preparatory classes prior to medical school virtually do not exist (Chenot, 2009). Not requiring pre-requisite classes or education prior to admission into medical school raises the question of whether or not the student is fully prepared for the medical school curriculum. This concern is, however, taken care of in the curricula. The German medical education is divided into three sections that, in total, make up the six years and three months of schooling and training: basic science (2 years), clinical science (3 years), and clinical year (1 year) (Chenot, 2009). The remaining three months are covered in testing periods. During the two years of basic science, topics such as anatomy and biochemistry, as well as the social sciences,

are covered and applied in a clinical context so as not to be considered irrelevant; also during this period a mandatory nursing rotation is required to obtain that first patient contact (Chenot, 2009). Therefore the first two years of basic education covers what a student would typically learn in an undergraduate education. During the three years of clinical science, twenty-one medical specialties are covered, which include areas such as general pathology, laboratory medicine, and clerkships in departments such as internal medicine and general surgery (Chenot, 2009). During this time, students are still learning in both the classroom and the clinic setting; however, during their final year, the clinical year, students are completely out of the classroom. During the clinical year, students undergo three clinical rotations in internal medicine, surgery, and one of their choice (Chenot, 2009). To obtain their medical license, students undergo two rounds of examinations. The first examination is taken just after the basic science section and must be passed in order to proceed, and the second examination is taken just before their final year ("Working and Training in Germany", n.d.). Students who pass both of these exams are awarded with a license to practice medicine and a title of "physician", however, to gain the title of "medical doctor" a student must complete a thesis portion, in which 70% of students eventually do (Chenot, 2009). The extra thesis portion of the medical education system ensures higher quality doctors because it requires them to further focus in on medical aspects. Whether or not the change in medical education has succeeded in increased retention and quality of physicians will be discussed in a later section. However, to completely assess the relation between the effects of physician activity on patient care load and health inequities, the medical education systems of Japan and the United States must also be analyzed.

Just as in Germany, the Japanese medical education system consists of approximately six years of training (Kozu, 2006). However, the breakdown of the curriculum varies compared to

the breakdown of the German curriculum. Instead of breaking down the curriculum into three sections like Germany, the Japanese medical education system is broken down into two parts: four years of preclinical education followed by two years of clinical education (Kozu, 2006). However, unlike Germany, Japan also offers a graduate medical education. This program lasts four to five years, with some programs even offering a combined MD-PhD degree (Kozu, 2006). This is similar to the medical education opportunities in the United States. However, undergraduate medical education is more popular than graduate medical education. Therefore, most of what will be discussed in this section pertains to the undergraduate medical education system. Admission into Japanese medical universities requires a combination of standardized achievement tests, recommendations, equivalent grade-point averages, interviews, and essays; however, each individual school can mandate other requirements based on previous education (Kozu, 2006). Like Germany, Japan had difficulty with retention and high quality physicians, therefore the medical education system was advised to update the curriculum. A set of guidelines administered by the Japanese government advised the medical education system to include the knowledge and skills of medical education and non-cognitive topics such as medical practice, risk management, and teamwork skills (Kozu, 2006). After completion of the four years of preclinical training, students must take the Common Achievement Test (CAT) before proceeding to the clinical education section (Kozu, 2006). The Common Achievement Test is similar to the first examination that all German medical students must take before proceeding to their second round of clinical training. After completing their final year of clinical training, students must pass a final examination before obtaining their medical degree. Instead of a standardized exam, the design of this final examination is determined by each individual medical university, and upon passing it the student is awarded with an MD degree (Kozu, 2006). Although students have

their medical degrees, the Japanese government still requires a post-graduate portion to ensure that prospective physicians are completely qualified to work in the medical field. To apply for the post-graduate portion, students must hold an undergraduate degree or certificate showing completion of a medical education, and completion of the National License for Physicians (Kozu, 2006). Admitted students then undergo a two-year clinical residency, which is spent focusing on primary care and general medicine before choosing a specialty (Kozu, 2006). This is comparable to the residency and fellowship programs that American medical students undergo after graduating from medical school. After completing the two-year residency, students have a choice in how they want to proceed with their careers. They can choose between three paths: entry to graduate school, procession to an advanced specialty clinical training course, or serve as a general physician (Kozu, 2006). Like the German government, the Japanese altered their medical education system in an attempt to increase retention and quality of their physicians. Whether or not these alterations were effective will be discussed in a later section. However, there is still one more medical education system that needs to be assessed to fully understand how physicians can affect patient care load and health inequities.

The United States' medical education system has many similarities to the Japanese and German education systems; however, the American medical education system is slightly more intensive. Unlike the German and the Japanese, medical education does not begin at the undergraduate level. Prospective medical students must obtain a Bachelor's degree to be eligible for admission into medical school (DeZee, 2012). This ensures that students have a complete grasp on the science behind medicine and the body before actually practicing medicine. Admission into a medical university in the United States is dependent on a combination of several elements. These elements include college grade point average, personal statements,

letters of recommendation, volunteer experience, interviews, and the Medical College Admissions Test (MCAT) score, which is used to predict performance in medical school and on the licensure exam (DeZee, 2012). The interviews, volunteer experience, and letters of recommendation guarantee that students have the competence to withstand a rigorous learning system. The volunteer experience can include shadowing various doctors and volunteering at hospitals. Once admitted to a medical school, students undergo four years of preclinical and clinical training and education (DeZee, 2012). After receiving their medical degrees, graduates enter a period of training in a chosen specialty. This period if known as graduate medical education or GME, and lasts between three and seven years depending on the selected specialty (DeZee, 2012). Residents can also undergo additional training after completing their initial residency. This is known as a fellowship. Fellowships are typically completed if a resident wants to specialize in an additional area or more specific area (i.e. pediatric gastroenterology) (DeZee, 2012). To become a licensed physician, the United States Medical Licensing Exam (USMLE) must be taken (DeZee, 2012). To stay licensed however, doctors in the United States must make extra effort to keep practicing. In all states, the licensing boards require physicians to show evidence of approximately fifty hours of continuing medical education (CME) every year, which can be accomplished in various ways regulated by the Accreditation Council of Continuing Medical Education (ACCME) (DeZee, 2012). Continuing medical education guarantees that doctors are keeping up to date with the latest research on medicine and medical technology to ensure the best care for their patients. However, this does raise the question of whether or not the fifty-hour requirement takes away time spent with patients.

Regulations and Roles in the Healthcare System

After obtaining a medical degree and license, physicians have the choice of working in either a hospital or in a clinic. No matter which choice the physician chooses, the nation's healthcare system still regulates what role the physician plays in society. These regulations can ultimately affect the physician-patient activity and in turn health inequities among a nation. According to the Commonwealth's International Health Profiles of Healthcare Systems, physicians play a key role in the healthcare system. According to Germany's health profile, Germans are free to choose their regular physicians, but sickness funds offer the option of enrolling in a "family physician care model" that provides better services and incentives for complying with gatekeeping rules ("2015 International…", 2016). This is in an attempt to keep individuals from visiting multiple doctors at a time, so as not to overload physicians and clinics. Physicians also receive their own incentives from the government. German physicians who get reimbursed for their services by the SHI negotiate contracts with sickness funds ("2015 International…", 2016). However, the government also offers financial incentives. The only regular financial incentive offered to German physicians is a fixed annual bonus for encouraging patients to enroll in a Disease Management Program ("2015 International…", 2016). Other financial incentives are mainly regional. For example, the Healthy Kinzigtal provides financial incentives for integrating care across providers and services ("2015 International…", 2016). By providing these financial incentives it encourages physicians to play a larger role in increasing the society's health status. In Japan, physicians typically work in hospital outpatient departments and clinics. These clinics and hospitals are typically owned by physicians or medical corporations and even the government ("2015 International…", 2016). Like Germany, though, the Japanese are not required to register with one physician or practice ("2015 International…", 2016). However, Japan does not offer any incentives for those who do, but rather they have

consequences for patients who visit multiple clinics. For example, patients who see multiple physicians at a time are charged for initial consultations ("2015 International…", 2016). This type of system encourages patients, more so than physicians, to play a better role in their health status. It also attempts to keep the patient care load of a physician as low as possible so as not to overwork the physician. Doctors in the United States typically work in small self-owned or group-owned practices ("2015 International…", 2016). As in both Germany and Japan, Americans are allowed to freely choose their physician, if their insurance allows them to ("2015 International…", 2016). Also like Germany, physicians in the United States are offered financial incentives. These incentives are based on quality and cost performance ("2015 International…", 2016). This type of system guarantees that physicians are treating their patients with the highest quality care available, thereby improving the health status of their patients.

Daily Activities

The general role of a physician is to diagnose and treat patients, whether that is via prescribing medication, surgical work, or referral to other doctors or specialists. According to the *Declaration of Professional Responsibility*, the duties of a physician should transcend societal roles, specialties, professional associations, geographic boundaries, and political divides in order to better "respect human life and the dignity of every individual" ("Declaration…", n.d.). However, the regulations that are set by healthcare systems often do not transcend these elements. In the cases that they do, treatment and diagnoses often leave the patient with poor treatment or in state of financial crisis. According to the United States Bureau of Labor Statistics, the duties of a physician include taking a patient's medical history, updating documents, ordering tests for nurses to perform, reviewing and analyzing test results, designing and recommending treatment plans, addressing concerns and answering questions provided by patients, and

encouraging patients to take better health care measurements ("Occupational Outlook Handbook", 2015).

Across Germany, Japan, and the United States these duties are more or less the same. Based on this list of duties, it is easy to see how the daily activities of a physician can bleed into how patients are treated. Japanese researchers have also defined common duties that physicians in Japan must perform on a daily basis. In this study conducted among Japanese physicians, it was suggested that there are five main activities that Japanese physicians carry out everyday: direct and indirect patient care, education, research, professional development, and administrative tasks (Nohara, 2014). In addition to these five main activities conducted at clinics, hospitals and practices, Japanese physicians also make house calls to their patients (Reid, 2008). Japan also does not have strict gatekeeping rules, therefore the Japanese can see multiple doctors even though they are encouraged to register with only one ("2015 International…", 2016). Because of the relaxed gatekeeping rules, Japanese people can see any doctor, anywhere, at any time for an average of 3-5 minutes for anything ranging from taking blood pressure to receiving medicines (Reid, 2008). This type of system seems very beneficial for patients, but is it really? Making house calls and seeing several patients a day can affect a physician's patient care load, whether it is a positive or negative impact will be discussed in the next section. In the United States house calls virtually do not exist anymore, rather, physicians travel between offices and hospitals to care for their patients ("Occupational Outlook Handbook", 2015). Traveling between offices and hospitals can take away time from patients, affecting their treatment. It should also be noted that this is done in addition to the tasks that were laid out by the Bureau of Labor Statistics. In addition to carrying out these daily tasks, it has been reported that physicians often carry out these tasks simultaneously. In one study conducted among German physicians, it was reported

that physicians performed tasks simultaneously approximately 17.3% of the time (Weigl, 2009). According to this same study, researchers suggested that physicians frequently conducted simultaneous tasks that involved conversations with colleagues, documentation, and conversations with patients (Weigl, 2009). This study also reported that the probability of combining one activity with another, often increased when conducted simultaneously with certain other tasks (Weigl, 2009). Simultaneously performing tasks can often take away the attention of the physician, which is extremely important in patient-physician communication. Taking into consideration the duties of physicians in all three countries, the typical work day for physicians in Germany, Japan, and the United States is often filled with several patients and organizational and administrative tasks that often create long work days. This can lead to several impacts on society and the physicians themselves.

Impacts of Physician Activity

Societal Outcomes of Physician Activity

It has been shown that physicians perform several daily activities often in conjunction with other tasks, which can have a gross impact on a nation's society, specifically in the areas of patient care load and the amount of patients treated in a day. The first area that physician activity can impact is patient care type. Patient care can be divided into two types: direct and indirect patient care. Direct patient care involves the face-to-face interactions with patients that include tasks ranging from collecting medical history to conducting surgery, while indirect patient care involves no face-to-face patient interaction but rather tasks ranging from medical conferences to charting and can also include discussions with family members or other loved ones (Nohara, 2014). In more recent years, the balance between direct and indirect patient care has become

uneven due to the additional tasks of indirect patient care. In a study conducted among German physicians, researchers suggested physicians, overall, spent more time on indirect patient care (Mache, 2009). Similar results were found in studies conducted in Japan, where physicians were found to spend more time on indirect patient care rather than direct patient care (Nohara, 2014). Indirect patient care in the United States was also shown to be higher than direct patient care. However, the imbalance between the two patient care types is less so because many physicians work in group practices or hospitals where doctors share patients and the increase in physician assistants and nurse practitioners allows for better patient care as well ("Occupational Outlook Handbook", 2015). The decrease in physician-patient contact can cause miscommunication in treatment and diagnoses, leading to improper treatment and decreased health status.

The second area that physician activity can affect is the amount of patients that doctors treat in a day. In Germany, one study suggested that because in recent years hospitals have sunk into deficits, many privately owned hospitals have reformatted their system so that physicians can see more patients in one day (Mache, 2009). Increasing patient care load per doctor decreases the amount of time spent with each individual patient. This can, in turn, affect the health status of a patient. This study also suggested that privately owned hospitals had decreased communication with patients (Mache, 2009), proving that increased patient care load does have a negative impact on society. As previously mentioned, in Japan there are no gatekeepers, which allows people to see the doctor at anytime for miniscule procedures and check-ups. Dr. Kono Hitoshi of the Kono Medical Clinic in Japan, said in an interview with PBS that in Japan anyone can see any physician at anytime, and often times physicians only see patients for about three to five minutes allowing doctors to see several patients in one day (Reid, 2008). Because of this benefit, patient care load can often increase for physicians. Only attending to a patient for about

three to five minutes can decrease physician-patient communication, which again can have a negative impact on society if this leads to a decreased health status. In recent years in the United States, there has been an increase in physician assistants and nurse practitioners. Both of these professions work in concordance with physicians to perform routine duties of doctors, administrative tasks, and indirect patient care duties, to alleviate physicians of many tasks and allow them to see more patients ("Occupational Outlook Handbook", 2015). Increasing patient care load allows for more treatment and diagnoses of illnesses, thereby creating a healthier community. However, increasing patient care load can lead to decreased patient communication, which could have a negative impact on society, as well. Clearly, there is a trade-off between seeing more patients and maintaining healthy patient communication. This trade-off raises the question of whether increased patient care load creates health disparities among the population since information has the potential to be miscommunicated leading to misdiagnoses and improper treatment.

Physician Outcomes of Physician Activity

Physician activity can also have a major impact on the physicians themselves. Many doctors work several hours a day seeing and treating patients, which often leads to burnout among physicians and ultimately a shortage of physicians in the long run. Physician burnout and shortage often stems from discontent among physicians. In both Germany and Japan, several physicians have shown discontent with their careers, feeling undervalued and underpaid (Reid, 2008). In *Sick Around the World*, an interview conducted by T.R. Reid, he showed the discontent between two physicians in Germany. Both Dr. Detlev Ganten and Dr. Christina von Kockritz shared that physicians in Germany do not have a high salary and make approximately half the salary that American physicians make (Reid, 2008). Like many people who are discontent with

their circumstances, several German physicians began protesting. In March 2006, several thousand doctors protested in the streets of Berlin because they felt underpaid for the work they performed during twelve or more hours per day and sometimes seven days a week (Reid, 2008). In Japan, many physicians have the same sentiments about their salaries compared to the amount work they typically perform. Dr. Hitoshi also stated in his interview, that he believes the healthcare system is good and fair but doctors cannot get rich like in the United States because of the national medical price book, which standardizes prices for all procedures across Japan (Reid, 2008). For the Japanese population this is good, but for Japanese physicians it leaves them feeling undervalued and underpaid. If a Japanese doctor were to try to boost their income by increasing the amount of procedures then the government lowers the price of that procedure when the time comes for the medical price book to undergo review (Reid, 2008). For the health of the Japanese society, this regulation is very beneficial because it creates affordable medical treatment for nearly all Japanese residents. However, this often leaves Japanese physicians discontent, which can affect their lifestyles. To encourage healthier behaviors in their patients, it is desirable for physicians to lead a healthy lifestyle to provide guidance for their patients on how they should lead their own lives. However, due to stress and the amount of activity that physicians carry out in a day, they can often succumb to the more unfavorable lifestyle habits. In one study conducted among Japanese physicians, researchers suggested that many physicians indulged in things like smoking and alcohol consumption everyday and consumption only increased as age increased (Wada, 2011). This report also suggested that among the physicians, very few exercised at least one day a week (Wada, 2011). Concerning food consumption, older physicians were the ones who consumed more balanced meals for every meal, and this decreased as age decreased (Wada, 2011). Leading a favorable lifestyle is not only beneficial for patients,

but also for the physicians because when they are healthy they are better able to perform their duties and less likely to burnout.

Not only can physician activity affect the lifestyles of physicians, but it can also affect the number of practicing physicians and their lifestyles. Across Germany, Japan, and the United States, shortages and burnout among physicians have been reported. In a study conducted among physicians in the United States, it was common for those who reported burnout to feel less satisfied, more stressed, and intention to leave their practice because of chaotic work conditions and less work control (Rabatin, 2016). Among several reports, researchers suggested that physician burnout was due to adverse work conditions, high patient care load, and increased physician activities. Physician burnout can potentially lead to discrepancies in communication, diagnoses, and treatment, which can create health inequities among the population. In recent years, Japan has reported a shortage of physicians due to a decrease in university hospitals (Nomura, 2011) and lowering the threshold of admission into medical school (Takata, 2011). To ameliorate this problem, however, the Democratic Party of Japan decided to increase the medical student quota (Takata, 2011). In contrast, however, the Bureau of Labor Statistics predicted an increase of 14% in the number of physicians between 2014 and 2024 in the United States ("Occupational Outlook Handbook", 2015). However, there is still the possibility of physician burnout and shortage for doctors in the United States, if patient care load continues to increase.

Relation between Patient Care Load and Health Inequities as a Result of Physician Activity

Physician activity can directly affect patient care load, which can cause several discrepancies in the health care of patients leading to health disparities across a nation. To

appropriately assess the relation between patient care load and health inequities, it is important to first define what that term means. According to the World Health Organization (WHO), health inequities are the differences in health status or distribution of health determinants between different populations (World Health Organization, n.d.). Health inequities can be measured by the quality of life of an individual and the health status of a society. Across Japan, Germany, and the United States, life expectancy is highest among the Japanese population followed by Germany and then the United States (World Health Organization, n.d.). According to statistics given by the World Health Organization, shown in Table 1, it can be suggested that Japan has the highest health status among all three countries' populations. Health status is a concept that is determined by the combination of life expectancy, presence or absence of disease, and the overall emotional, physical, and mental well-being of a society.

Table 1. Health status statistics given by the World Health Organization in 2013.

	Germany	**Japan**	**United States**
Total Population	82,727,000	127,144,000	320,015,000
Gross national income per capita (PPP international $)	44	37	53
Life expectancy at birth M/F (years)	79/83	80/87	76/81
Probability of dying under 5 (per 1000 births)	N/A	N/A	N/A

Probability of dying between 15-60 M/F (per 1000 population)	92/50	81/42	128/76
Total expenditure on health per capita (International $)	4,812	3,741	9,146
Total expenditure on health as % of GDP	11.3	10.3	17.1

The health status of a society, however, is dependent on the quality of patient life. The quality of patient life encompasses any aspect of life that affects an individual's physical, emotional, or mental health. Physician activity can directly affect how well a patient is doing in terms of quality of life. Increases in physician activity have shown negative impacts on patient care due to decreases in physician-patient communication. Increases in patient care load have also suggested negative impacts on both patients and physicians due to increased workload. If the quality of life of a patient is not favorable, then this could potentially affect the health status of a nation, especially if the quality of life of enough patients becomes unfavorable. A declining health status could ultimately lead to health inequities among a nation. The World Health Organization also attributes health inequities to two determinants: biological variations or free choice and external environmental conditions and those that cannot be controlled by an individual or group (World

Health Organization, n.d.). The activity of physicians can be categorized into the former attribution of health inequities since the activity of physicians can be controlled and changed.

Conclusion

Increases in physician activity can affect patient care load, which can ultimately affect the health of a population and lead to health inequities across a nation. As mentioned, physician activity begins as early as when a student is admitted into medical school, and in some cases, as in the United States, even earlier when students must achieve pre-requisites for medical school in undergraduate education. Across all three countries, prospective physicians must undergo several years of education, training, and testing so there is little room for discrepancies. However, elements that are meant to improve physician quality, although beneficial, can contribute to the creation of health inequities. For example, in the United States physicians must participate in continuing medical education every year. In Japan, as well, physicians must progress their profession development and continue researching new ideas and concepts across the medical field. In theory, requiring physicians to progress their knowledge in the medical field is very advantageous for all involved. However, going to conferences and conducting research takes time, and very often this time comes out of the time that these physicians would be using to see and treat patients. Additionally, the daily tasks that physicians have to carry out can also take time away from patient contact. As mentioned, in addition to diagnosing and treating patients and continuing their medical education, physicians have to carry out tasks of administration and indirect patient care that can include activities such as charting, case discussions, and speaking with the patient's relatives and loved ones. Spending more time on indirect patient care and administrative tasks takes away from the time spent on direct patient care. Without the needed

attention given to patient-physician communication, diagnosis, and treatment, a disconnect can be created leading to miscommunication, misdiagnoses, and improper treatment. This can lead to unfavorable health profiles of patients, which in turn leads to an unfavorable health status of the population and ultimately creating health inequities among patients. Multitasking of direct patient care, administrative tasks, indirect patient care, and other physician activities adds to the concern of improper patient-physician time. This combined with the several tasks that physicians must execute, can potentially lead to an unfavorable health status of a population and eventually health inequities among patients. In this way, the daily activities of physicians can affect the health of society. In several studies, it was seen that recently patient care load has increased for various reasons, and the three countries examined had different ways of dealing with this issue. For example, in the United States many physicians work in group practices and hospitals where there are other doctors who can step in when their colleagues are not available and other physicians travel between clinics and hospitals to treat patients. While beneficial, this can take a toll on physicians, as well. As mentioned, physician activity can also impact the physicians themselves in multiple ways. In Japan, it was reported that the lifestyle of many physicians had been impacted by their daily activities and patient care load. In the United States, there were many reports of several physicians burning out due to increased patient care load, overtime, and increased daily activities. In recent years, German physicians have become so dissatisfied that many have taken to the streets to protest for better wages and changes in the healthcare system to better appreciate physicians. The well-being of physicians is just as important as the well-being of the patients since if the physicians cannot perform their duties to their fullest potential, it can affect how the patients are diagnosed and treated. The combination of patient care load and the daily activities of physicians when not monitored properly can lead to an unfavorable health

status of a population, which can ultimately lead to health inequities, especially if lack of patient-physician communication and misdiagnoses are involved.

Works Cited

2015 International Profiles of Health Care Systems (Rep.). (2016, January). Retrieved March 16, 2016, from The Commonwealth Fund website: http://www.commonwealthfund.org/~/media/files/publications/fund-report/2016/jan/1857_mossialos_intl_profiles_2015_v7.pdf

Chenot, J. (2009). Undergraduate medical education in Germany. *German Medical Science, 7*. Retrieved March 19, 2016.

Declaration of Professional Responsibility. (n.d.). Retrieved March 30, 2016, from http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/declaration-professional-responsibility.page#

DeZee, K. J., et al. (2012). Medical education in the United States of America. *Med Teach, 34*(7), 521-525. Retrieved March 19, 2016.

Kozu, T. (2006). Medical education in Japan. *Academic Medicine, 81*(12), 1069-1075. Retrieved March 18, 2016.

Mache, S.,et al. (2009). Does type of hospital ownership influence physicians' daily work schedules? An observational real-time study in German hospital departments. *Human Resources for Health, 7*(41). Retrieved March 17, 2016.

Nohara, M., et al. (2014). Hospital physicians perform five types of work duties in Japan: An observational study. *BMC Health Services Research, 14*(375). Retrieved March 19, 2016.

Nomura, K. (2011). Physician shortage in Japan: The new postgraduate medical education program and physicians as a human medical resource. *Nihon Eiseigaku Zasshi, 66*(1), 22-28. Retrieved March 30, 2016.

Occupational Outlook Handbook (Rep.). (2015, December 17). Retrieved March 19, 2016, from United States Department of Labor website: http://www.bls.gov/ooh/healthcare/physicians-and-surgeons.htm#tab-1

Rabatin, J., et al. (2016). Predictors and Outcomes of Burnout in Primary Care Physicians. *Journal of Primary Care & Community Health, 7*(1), 41-43. Retrieved March 21, 2016.

Reid, T. (Producer). (2008, April). *Sick around the world* [Television broadcast]. Public Broadcasting Station.

Takata, H. (2011). The current shortage and future surplus of doctors: A projection of the future growth of the Japanese medical workforce. *Human Resources for Health, 9*(14). Retrieved March 29, 2016.

Wada, K, et al. (2011). Lifestyle Habits among Physicians Working at Hospitals in Japan. *JMAJ, 54*(5), 318-324. Retrieved March 19, 2016.

Weigl, M., et al. (2009). Participant observation of time allocation, direct patient contact and simultaneous activities in hospital physicians. *BMC Health Services Research, 9*(110). Retrieved March 20, 2016.

Work and training in germany. (n.d.). Retrieved March 16, 2016, from http://www.bundesaerztekammer.de/weitere-sprachen/english/work-training/work-and-training-in-germany/

World Health Organization. (n.d.). Retrieved March 22, 2016, from http://www.who.int/en/