

Social Determinants Effecting Health Outcomes Worldwide

Health care disparities are affecting the health outcomes of marginalized populations in the United States, but their effect reaches far beyond the borders of this country. According to the Centers for Disease Control and Prevention (CDC), “Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged groups” (CDC, 2008). Differences are seen in health outcomes due to socioeconomic statuses, culture, gender identification, ethnicity, and many other factors. Health disparities are present in a variety of locations around the world including Sub-Saharan Africa and Latin America. Although these countries are vastly different, they share similarities as both struggle with poor health outcomes for certain groups. In Latin America each of the countries tend to have their own health care systems (Jacobs, 2022). There are typically many quality hospitals in the bigger cities, but the health care options in rural areas are lacking (Jacobs, 2022). In Africa, health care is some of the worst seen worldwide (Azevedo, 2017). Many of the individuals are lacking the education needed to make informed health care decisions, and there are disparities seen between the health outcomes of the wealthy and the poor (Azevedo, 2017). Lack of transportation, low economic status, malnutrition, spirituality, education level, and language barriers are contributing factors to the overall health disparities seen in remote areas around the world.

In rural areas around the world the landscape can create immense challenges and restrictions on accessing health care. In Guatemala, the mountainous regions provide extra challenges to reaching a medical facility (Cristia et al., 2015). Having to climb over rocky terrain just to find help can make getting health care nearly impossible. Living in rural areas provides many challenges in of itself, but it can make distance to a medical facility a significant

preventative factor in receiving health care services. In addition to living in remote areas where the terrain may provide challenges in reaching destinations, the cost of transportation can be a limiting factor in accessing health care. In rural portions of Guatemala, cost has been identified as one reason that health care is inaccessible (Cristia et al., 2015). Mothers cited the cost of transportation as the reason behind why they would not be able to reach a health care facility to vaccinate their children (Cristia et al., 2015). A lower vaccination status within a population of people could lead to higher prevalence of preventable diseases when vaccines are inaccessible to a community for whatever reason. It is an impossible to decide how to spend the limited funds families are living on. The choice of whether to put food on the table or pay the cost of transportation to receive necessary medical care is unfathomable for many individuals, but it is a reality for certain people living all around the world.

Transportation is a privilege that only those who can afford it are granted. Guatemalans living in rural settings struggle with rough terrain and poverty, limiting their access to transportation and in turn making health care rather inaccessible. Those living in rural portions of Sub-Saharan Africa often face similar challenges when it comes to reaching health care facilities. In remote areas all around the world, poverty is very common and Sub-Saharan Africa is no exception. Those who are living in poverty and have jobs are unlikely to be able to spend a whole day traveling to get to a health care appointment (Palk et al., 2020). Missing a day of work may seem like no big deal, but to a family living in poverty this could be the difference between having dinner on the table and going hungry for the night. In Malawi, a Sub-Saharan African country, they are trying to reach a 90% treatment rate for the HIV pandemic, but transportation is scarce and getting to a health care facility and back may take the whole day (Palk et al., 2020). For a primary financial provider, missing out on a whole day's pay may simply not be feasible

(Palk et al., 2020). Financial insecurity can cause serious stress and anxiety within a family, but a lack of financial security in turn means a lack of food security. The foods consumed by an individual will play a vital role in their overall health and wellbeing, making it challenging to decide between receiving medical attention and having the funds to purchase nutritional items to fuel the body. In Sub-Saharan Africa, the medical facilities are located centrally in rural areas, but that could still mean that the facility is far away and inaccessible to those living in various regions of these rural locations (Oduse et al., 2021). Most of the providers are in urban areas, and many do not want to work in rural settings (Oduse et al., 2021). Even if one can reach one of these centrally located facilities in rural Sub-Saharan Africa there is likely to be a shortage of providers there who are available to provide the necessary services. The lack of transportation, contributing to health disparities is connected to many other factors that all play a role in the health outcomes that people experience.

Nutrition plays an essential role in the entire equilibrium of the body; if an individual is experiencing a form of malnutrition, it is likely they will experience other health complications as well. In Tanzania, a country located in Sub-Saharan Africa, malnutrition is a problem affecting both young children and expecting mothers. Proper nutrition is essential during the first two years of life, and improper nutrition in children can cause morbidity, mortality, problems with cognitive functioning, and lower performance in school (Bundara et al., 2013). Nutrition affects every body system, and the body needs the proper nutrients to perform everyday functions. Proper nutrition is not something that is just important during childhood. Everyone needs to nourish their bodies effectively, especially expecting mothers. If mothers are unable to receive proper nutrients during the prenatal or post-natal periods this can result in undernourished children who are at a greater risk for developing diseases and infections

(Bundara et al., 2013). In Guatemala, child stunting is a serious problem that is affecting health outcomes. Child stunting is known as chronic child malnutrition (Juarez et al., 2021). If an individual is not receiving enough of the right food and nutrients this can cause the person to become malnourished. In rural locations some foods may be more prevalent than others, limiting the intake of nutrients to what is available. Economics also plays a large role in what foods a family can afford to purchase and how much food the family has access to. In a particular rural population in Guatemala, 50% of the Guatemalan families were food insecure (Juarez et al., 2021). Many of the heads of households in this population were working as agricultural day laborers, but even though many held this position only 29% had access to land to grow food for their families (Juarez et al., 2021). Without having land to grow food this means the food must be purchased, but for families living in poverty it is questionable how much extra money is available to purchase food. With limited financial freedom, families may be faced with tough choices on whether their money will be spent on food, health care, or even transportation if they need a way to urgently get somewhere. Eating healthy is not always a simple lifestyle choice to make, sometimes a financial situation or physical access to the food can be a preventing factor from getting the necessary nutrients for the best health possible.

Spirituality and culture are connected to the overall wellbeing of the body. The mind and body are closely connected, and if one is off balance, it is like issues will arise in the other. Throughout the world medicinal practices and spirituality are connected in unique ways. Specifically in Uganda there is a combination of biomedical and traditional pastoral healing practices that are used by the population (Koltai et al., 2021). There was a study done in Uganda that looked at 626 people with epilepsy who were attending three different public hospitals; the purpose of the study was to look at how people chose the form of health care they would receive

(Koltai et al., 2021). Spirituality is something that affects how one lives their day to day lives and the choices they make during their lifetime. In Uganda there is no hierarchy of whether biomedical or traditional healing methods should be sought out first, so belief in spiritual causation could influence the type of treatment that is selected (Koltai et al., 2021). Individuals may feel more comfortable receiving traditional healing because they know their spirituality will be respected and understood. Feeling judged and misunderstood based on one's spiritual beliefs is uncomfortable, and could be even more problematic if the biomedical provider is not culturally competent and understanding of the various beliefs present within the population. This Ugandan study noted that if traditional healing methods were sought out first, biomedical treatment could be delayed by two years and most traditional healers will not provide care at the same time someone is receiving biomedical treatment (Koltai et al., 2021). The choice between meeting spiritual needs and one's biomedical needs could cause poor health outcomes. Since the mind and body are interconnected, spiritual unease could affect physical symptoms and physical symptoms could cause spiritual questioning. Those with higher education levels often sought out biomedical treatment first (Koltai et al., 2021). The importance of biomedical treatment and how the body functions should be taught to all people worldwide, but spiritual beliefs should be taken into consideration when caring for patients, as spirituality is an important part of who people are.

The conflict between spirituality and biomedical practices is not unique to Uganda, this is an issue that can be seen worldwide and is experienced by indigenous groups living in Guatemala. The Mayan-Tz'utujil women are part of an indigenous group living in Guatemala. This indigenous group believes in both biomedical and traditional healing practices (Giralt, 2012). The women of these indigenous tribes are responsible for healing and taking care of loved ones (Giralt, 2012). Midwives play an essential role in the birthing process and are also

responsible for determining whether a newborn child has a healing gift and what gift they possess based on the position of the veil (Giralt, 2012). When determining whether to use biomedical or traditional healing, spirituality is a key factor. If the disease appears to have a spiritual origin the mothers will take their loved one to a traditional healer because the clinics will not understand a disease of spiritual origin (Giralt, 2012). Comfortability with providers is essential for an effective patient-provider relationship to be established. If a patient feels their spirituality, lifestyle, ethnicity, or any other factor is not understood or accepted by the provider, it is unrealistic to expect them to receive care from this individual. The Mayan-Tz'utujil women feel disrespected when they visit the clinics, and they believe their culture and healing practices are looked down upon (Giralt, 2012). Respect is extremely important between a patient and provider. If patients are uncomfortable receiving care from a clinic because they are judged when they walk through the door, they will have worse health outcomes because they are less likely to seek the necessary care for fear of being judged. It is not uncommon for indigenous individuals to face extreme levels of poverty and discrimination (Giralt, 2012). These indigenous women are reluctant to go to the clinics because many are impoverished and cannot afford the medicine that will be prescribed to them (Giralt, 2012). They typically do not see improvement with the treatment they receive, so they end up going to traditional healers anyway (Giralt, 2012). Understanding and respecting others' cultures and beliefs could provide great improvement to the health outcomes minority populations experience. If providers are considering spirituality when forming a treatment plan, a plan can be put in place that would put the patient's needs at the center of the treatment. Incorporating spiritual medicinal practices into biomedical health care could only strengthen the health care system and improve health outcomes (Giralt, 2012). Cultural competency and education on different beliefs allows providers to better understand the

physical, mental, and spiritual needs of their patients to improve adherence to medical plans and over wellbeing.

Communication is essential in receiving proper health care, but language barriers can prevent both patients and providers from clearly expressing and explaining their thoughts, concerns, and questions so desired health outcomes can be reached. Language can also represent a person's culture and heritage. A study looked at how mothers in the countries of Guatemala, Mexico, Peru, and the Plurinational State of Bolivia have worse maternal health outcomes; and, language was used to define the different indigenous groups (Armenta et al., 2019). Not being able to clearly communicate and understand other individuals can be an uncomfortable or even scary experience. Women who speak indigenous languages are known to be less likely to give birth in a health care facility, and there is a high rate of maternal mortality in geographic areas where many individuals speak an indigenous language (Armenta et al., 2019). It is also common that these indigenous women attend low numbers of prenatal visits and are often not using modern contraceptives (Armenta et al., 2019). Health care appointments are supposed to be educational experiences that allow patients to leave feeling more confident that they can take care of themselves properly. If there is a language barrier it is unlikely a patient will leave feeling more knowledgeable, and the provider likely feels helpless in being able to provide proper care to the patient. If the patient cannot communicate or learn anything from attending the health care appointments, it would make sense they would not bother attending the appointment in the first place. Having doctors, practitioners, or community members present to translate could increase comfort and adherence to medical treatment plans. Indigenous members may feel confident in attending their appointments at the clinics, if they knew they would have a way to communicate their needs to their provider. Health care may be established in these countries, but similar to the

United States, unless it is meeting the needs of both the minority and majority populations it is most likely not going to improve.

Education level can contribute to one's ability to make medical decisions for both them and their family members. Education level is known to be a social determinant of health affecting health outcomes and contributing to disparities. Schooling influences the job someone is qualified for, the money they can make, the home they can own, and the financial support they can provide to their family. Education level influences whether a patient understands the doctor's orders (Oduse et al., 2021). If one cannot understand the instructions given to them by the provider, it is unlikely they will be compliant and adhere to the continuation of care at home, leading to worse health outcomes. It is also common for women in rural areas to receive lower education levels (Oduse et al., 2021). Media messages are used in Sub-Saharan Africa to spread the importance of pre and postnatal appointments, the safety of giving birth in a health care facility, and the safety provided by having a competent medical provider present at the time of birth (Oduse et al., 2021). There is known to be a significant amount of poverty in rural areas, so women living in these regions may not see these messages due to lack of technology. If the women have a way to see these media messages their lower education levels may prevent full understanding of the gravity of the information presented to them and the science behind the information being shared. This lack of understanding may also be due to a language barrier, preventing full understanding of the topic if the information is not presented in a language that the women living in rural areas use and understand. The epilepsy study done in Uganda that was previously mentioned had differing outcomes in accessing care based on education level (Koltai et al., 2021). When the individual in charge of making medical decisions for the family had a higher education level, biomedical treatment tended to be sought out first as opposed to

traditional healing methods (Koltai et al., 2021). Individuals who have a better understanding of the body and how it works, and various other biological processes, have a stronger background off which they can base their medical decisions. Educating all people on the body and basic level science is important and could help individuals receive biomedical care faster if they better understand the signs and signals their body is transmitting to them.

Transportation, education, language, spirituality, malnutrition, and economics are intertwined, and all contribute to the health disparities observed in remote areas around the world. Awareness of these social determinants of health and their impact on health outcomes is a good first step in addressing the problem. It is important to step back and analyze the practices that have been implemented into these communities and how these implementations can be built upon to further reach marginalized groups within these larger communities of people. Educating these rural communities and allowing these communities to share their culture with the world are ways can that society can help to build cultural understanding and respect. These communities know their needs better than anyone else ever could, so any changes or implementations in hopes of bettering outcomes should be led by the community members themselves. Differences do not make another culture's ways inferior, but rather this means that this community has something to share with the rest of the world. Health disparities exist around the whole world, but the problems these countries are facing are also seen in the United States. As seen in the COVID-19 pandemic the health in the United States is influenced by the health in various other countries, so it is important that we come together to improve health outcomes worldwide. Cultural competence, acceptance, and celebration of differences in beliefs and practices could help unite differing groups and lower disparities observed among rural population around the world.

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