

An Understanding of How Traditional and Modern Medicine Intersect

Barbara Prillaman | High School

Unit Description

In this unit, high school students will answer the questions: How do the sociological perspectives (functionalist, conflict, and symbolic interactionist) approach the concepts of health and medicine?, How are the sociological concepts of social stratification and culture related to health and health care?, What are curanderos (as) and shamans, what roles do they serve in a society, and how does this relate to health care practices? What is ethnobotany and how is it related to health care? Why is the Amazon referred to as a living pharmacy? and How is conservation connected to health care? Focusing on health care to support our school's mission, students will meet the local community college's learning target to analyze personal reactions to sociological concepts, principles, and processes. By expanding their knowledge of the local to global, students will investigate medicinal plants from our area with the help of the Lenape and grow and tend to them on our school campus.

Content Standards

- Evaluate relevant sociological concepts and principles applicable to understanding daily life and formulate personal reactions to sociological concepts, principles, and processes. SOC 111 Sociology
- Investigate complementary and alternative health practices as they relate to wellness and disease prevention. National Health Science Standards
- Integrate and evaluate multiple sources
 of information presented in diverse formats and media
 (e.g., visually, quantitatively, as well as in words) to
 address a question or solve a problem. Literacy in
 History Standards/Common Core 11-12.7

Objectives and Outcomes

- 1. Focus on the complexity of health care and the relationship between local and global factors when addressing the individuals' health.
- 2. Analyze personal reactions to sociological concepts, principles, and processes of our healthcare system as compared to those in the Amazon.
- 3. Describe how the nations of the world differ in important indicators of health and illness.
- 4. Compare and contrast traditional and modern medicines highlighting medicinal plants (of the Amazon/global and Lenape/local).

Supporting Material

- 1. DTI 2022 Unit
- 2. An Understanding of How Traditional and Modern Medicine Intersect





An Understanding of How Traditional and Modern Medicine Intersect

Barbara Prillaman

...and the fruit thereof shall be for meat, and the leaf thereof for medicine. Ezekiel 47:12¹

Introduction

The hike up the mountain to a secret river had not gone as I had expected. Unfortunately, my ankle gave out as I was jumping from one rock to another, and I suffered a bad injury. To make matters more unfortunate I was in the middle of nowhere – serving in the Peace Corps in the Ecuadorian Andes Mountains. My friends helped me back to my house taking five times the amount of time it took us to arrive as I was basically unable to walk. The ankle and leg continued to swell and became a variety of colors. With the swelling my fear and anxiety also was rising! My neighbor and the town health practitioner (Carmelina) stopped by as she had heard through the grapevine what had happened – nothing was private in our town! She looked at my leg and said she would return in a bit. What was wrong and what was I going to do? Was something broken? As I lay there wondering about these things and knowing that my health care options of an hour walk down a mountain and a five-hour bus ride away to the capital city seemed impossible, Carmelina returned with an elderly woman whom I had seen only a few times from the town above ours. Carmelina introduced her as Beatrice, a *Curandera*. I had not been privy to the local healer's ways – only heard about them in passing. Without talking, Beatrice began to spread some type of balm on my ankle and leg which I could not figure out what was the actual aroma. She forcefully moved around and massaged the entire area during which I was completely frantic (in my mind) that she was causing more harm than good. After what seemed like an eternity, she pronounced that I would be fine in a few days. And, true to her word, I was! After participating in this seminar and researching information about traditional medicines, I think back on this experience with regret. There were so many missed cultural clues on my part – belief in what she was doing, gratefulness and a gift no matter what the outcome, and inquiring about the medicinal components of the balm. This experience among others such as contracting mal aire (bad/evil air) on a bus if one opened a window, or the severity of mal ojo (evil eye) with young children to name a few remind me that I was surrounded by these examples without even knowing it. I think this is much like what my students face today. They are surrounded by the interaction of natural remedies for things to ease pain such as CBD cream or probiotics for gut health or aloe vera for sunburn relief, among others. Knowing the how and the why of this interaction is important as students at a health science school, consumers, and conservators of our Earth.

¹ C.A. Weslager, *Magic Medicines of the Indians*.

Rationale

Conrad Schools of Science (CSS) is a science/biotechnology magnet school serving almost 1300 students in grades 6 – 12. It is considered an urban school, situated on the outskirts of the most populated city in the state of Delaware, Wilmington, which is well known for its violence rates. CSS students come from all over our state's largest county, New Castle. At the high school level, students can choose to focus on a variety of learning "*strands*" such as biotechnology, physical therapy/athletic healthcare, biomedical science, animal science, and computer science. Our high school is the only one in the state that is not a vocational-technology school to offer a Delaware Certified Nursing Assistant (CNA) program.

Additionally, a variety of Advanced Placement (AP) courses are offered as well as multiple courses that are in conjunction with our local community college and university. I am the teacher of one of these courses, *Sociology*. This unit is designed for the high school juniors and seniors who choose to take this social sciences course, Sociology, as an elective. Due to scheduling requirements, most of them tend to be seniors who have already met their graduation requirements. These students must complete and pass a basic literacy test given by the local community college to gain entrance. Additionally, their families must pay a tuition fee, albeit reduced. This ensures if they complete the work at a satisfactory level and pass with a predetermined grade average, they will receive community college credit that tends to be easily transferred to local universities/colleges. I am fortunate that I usually have previously taught most of these students – at least for one year and some for two. It also helps that they have the prior knowledge of psychology to assist them with the new sociological concepts that we learn.

Since our school has an allied health (health science) emphasis, I continue to think more about how I can relate my subject matter (sociology and psychology) to our school's focus. I have successfully done this twice so far for my psychology course – Well *Being* and *Brain Surgery Across the Ages: Stones to Advanced Technologies*. Now, fortunately, I am creating something innovative for my sociology course! This unit focuses on: (1) understanding health, medicine, and society (here at home) in which students will connect this to our unit on social stratification (who gets access to what resources and why), (2) a focus on working with Indigenous populations and better understanding culture to include healers of all types so that students will see how culture impacts healthcare systems and ideas, and (3) an introduction to ethnobotany to better understand some medicinal plants and their uses to understand the intersection of traditional and modern medicine. This unit is really two parts and is a multi-year process for me. As I continue my journey in this seminar extension, I will be focusing more on the second and third sections with a collaborative case study of local and global Indigenous peoples.

Learning Objectives

There are several Delaware Technical Community College Wide Core Course (CCC) Performance Objectives that I am mandated to follow as I plan my units of instruction. In this unit I will be using one of them: Analyze personal reactions to sociological concepts, principles, and processes. However, it is subdivided to include (8.1) Evaluate relevant sociological concepts and principles applicable to understanding daily life and (8.2) Formulate personal reactions to sociological concepts, principles, and processes.² Additionally, I am adding one of the National Consortium for Health Science Education standards to be able to apply the idea of illness and health care in our society as well as in others to include Standard 9: Health Maintenance Practices – in particular, 9.1.4, which reads: Investigate complementary and alternative health practices as they relate to wellness and disease prevention. I envision focusing on the Social Institution of Health and Medicine, in which students would (1) Describe how the nations of the world differ in important indicators of health and illness and (2) Explain the health-care model found in nations other than the United States. To do so, students will need to understand the medical benefits derived from the Amazon (the science behind it) while also considering the Indigenous peoples of the area pharmacopeia and the connections to modern medicine. Lastly, the unit will address the Common Core Standard (Integration of Knowledge and Ideas CCSS.ELA-Literacy.RH.11-12.7) in which students will: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) to address a question or solve a problem. I believe this question or problem could focus on the idea of looking at the complexity of health care – how there is a relationship between local and global factors when addressing the individuals' health.

Students will be participating in a variety of activities to learn about these standards. These will include reading different texts (historical and personal accounts), viewing videos of healers — modern and traditional — and their work. Some of these multi-modal texts will be mandatory (e.g., historical, and sociological information) while others will be choice-based. The main goal is that students will be able to compare health care systems locally and globally noting how society and culture come into play. Lastly, they will build a foundation for their subsequent learning of the sociological concepts of social stratification meaning "the allocation of individuals and groups according to various social hierarchies of differing power, status, or prestige."³

Enduring Understandings are the big ideas of this curriculum unit and are taken from the Core Concepts of a textbook's chapter on Health. Students will understand that "people's social backgrounds have an influence on the quality of their health and health care and that a society's culture and social structure also affect health and health care." They will also learn that "Scientific medicine is a relatively recent development in the history of the world. For much of human history, religious and spiritual beliefs, not scientific ones, shaped the understanding of

² https://syllabi.dtcc.edu/syllabus/soc-111 (accessed April 5, 2021).

³ https://www.oxfordbibliographies.com/view/document/obo-9780199756384/ obo-9780199756384-0053.xml#:~:text=Broadly%20defined%2C%20social%20stratification%2 0is,power%2C%20status%2C%20or%20prestige. (accessed December 4, 2021).

⁴ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 519.

health and the practice of medicine."⁵ Additionally, curanderos and shamans are as vital as physicians to some societies. Students will learn that ethnobotany is the scientific study of the traditional knowledge and customs of a people concerning plants and their medical, spiritual, and other uses. Lastly, they will be able to identify the connections and interactions between traditional and modern medicine.

These understandings lead to <u>Essential Questions</u> that guide students throughout this unit of each of our sessions. These questions are those that students will investigate as we better understand health care and what that looks like here and in the Amazon. These will be paired up with the Learning Targets above and include: What are the basic views of the sociological approach to health and medicine (functionalist, conflict, and symbolic interactionist)?, How are the sociological concepts of social stratification and culture related to health care?, What is a curandero, what role does one serve in a society, and how does this relate to health care practices?, Why is the Amazon referred to as a living pharmacy?, What is ethnobotany and how is it related to health care?

Content Objectives

Health, Medicine, and Society

As an Allied Science school, most of our students focus on a pathway that connects to the healthcare field. Whether that is nursing, biomedical technological, or physical therapy, students are beginning their journeys into the healthcare world of the future. Many students take Sociology as it can fulfill one of their college requirements. Why then have I not thought to include a unit on health and medicine is beyond me! Although it is not a requirement as per our local community college, there are standards that align to it, and it is of specific interest to my students.

When a sociologist looks at health and medicine, a variety of social factors come into play including race and ethnicity, social class, gender, amongst others. Collectively, these factors are referred to as our social location and have a huge impact on the reasons behind what types of illnesses we may acquire and the access to medical care we may or may not have. I believe my students will understand this concept as we spend time at the beginning of the school year looking at C. Wright Mill's sociological imagination – the intersection of self and society/an interplay between the two.⁶ Social epidemiology refers to "the study of how health and illness vary by social and demographic characteristics such as social class, race and ethnicity, and

⁵ Ibid. 535.

⁶ Mills, C. Wright. *The Sociological Imagination*. New York: Oxford University Press, 1959.

gender." In the video, Social Determinants of Health, students will be able to see how these connect to life chances. Who they are and what they do – where and to whom they are born, grow, work, live, age, and the health systems in their societies collectively are called the social determinants of health. There is an unequal distribution of money, power, resources – locally and globally Sociologists sometimes use a framework created by the World Health Organization to better understand these determinants which are divided into two broad types structural and intermediary. Structural determinants are then sub-divided into two types: socio economic and political context which include—government, economic, and social and cultural values placed on health. The second type is the socioeconomic position which includes education, gender, occupation, ethnicity, income, and social class. Intermediary determinants include material circumstances (home, work environment, ability to purchase nutritious foods), psychosocial (stressful living circumstances, relationships, and social support), and behavior and socioeconomic position. Social cohesion and social capital bridge the structural and intermediary determinants and reflect a willingness of people in a community to cooperate and sacrifice for a wider benefit.

Some of the specifics that students will become aware of and connect to the idea of social stratification are that people of a lower socioeconomic status are at higher risk for health problems due to living conditions, work, diet, and stress, education, and lack or limited access to health care. In our society, this means living 10-15 years less from the highest to lowest income levels. Race and ethnicity come back to high poverty levels for monitories in our society, "unconscious racial bias among health-care professions that affects the quality of care that people of color receive". There is also the added stress of racial prejudice and discrimination, higher infant mortality rates, and many times their physical location to include environmental racism in which people of color – those that are poor tend to live in areas that are "unhealthy places because of air and water pollution, hazardous waste, and other environmental problems." When it comes to gender, women outlive men, yet their health seems to be worse. Although men's

⁷ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 523.

⁸ https://www.youtube.com/embed/8PH4JYfF4Ns?rel=0 (accessed on October 2, 2021).

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 525.

¹³ Ibid. 526.

¹⁴ Ibid

health issues tend to be more life-threatening e.g., heart disease may be biological, "women's estrogen and other sex-linked biological differences may protect them from heart disease and other life-threatening illnesses." Men tend to lead unhealthier lifestyles and tend not to seek treatment when necessary.

There are several other vocabulary terms that students should be familiar with as we move forward in our work. These include the overarching point of the unit - medical sociology which "seeks to understand the ways that society approaches and shapes health, disease, and illness." Additionally, students should know that medicine is the social institution responsible for treating disease and restoring or improving the health of a population; health is a state of physical, mental, and social well-being; a disease is a structural or physical dysfunction of the body; and illness is the social and cultural response to a disease. When it comes to viewing illness, there are two key points *illness* and *belief*, meaning the severity and nature of symptoms and your perception of them depends on race, class, culture, gender, age and social institutions can influence this as well — what one's family thinks or an individual's work environment allows for time off (e.g. sick leave or not). Institutions within health service play a major role in defining disease and who has access to health care (e.g., pharmaceutical companies, hospitals, etc.) all denote those patients are not created equal — each situation is dependent on the type of illness and who is the person.

Sociological Perspectives

My students arrive to our class with little to no prior knowledge about most of the content that we will delve into throughout the year. However, I do appreciate how the textbook uses relevant, real-life examples to help students try to understand this better, making the content less dry and more meaningful at the same time. Information about the foundation – the three sociological concepts – are relevant to a student's understanding and will be applied to all the concepts we cover over the course of the year including – in this case – health care. The three sociological perspectives that guide our studies throughout the year: Functionalist, Conflict, and the Symbolic Interactionist. These theories "offer a set of guiding questions and key concepts that address how societies operate and how people relate to one another." These guiding questions and key concepts are viewed as a framework to be able to interpret a particular issue or event (in this case health care). Our year-long study of sociology begins with building a strong understanding of these perspectives so that students will be able to apply these theories to the many societal topics we cover such as gender, race, family, education, and politics, among others.

¹⁵ Ibid, 528.

¹⁶ https://www.youtube.com/watch?v=8NGlENS1ggo (accessed September 12, 2021).

¹⁷ https://www.who.int/patientsafety/education/curriculum/course1a_handout.pdf/World Health Organization (accessed October 1, 2021).

¹⁸ Joan Ferrante, Sociology: A Global Perspective, 28.

Functionalist Perspective

The functionalist theory highlights "how the 'parts' of society contribute in expected and unexpected ways to social order and stability and to social disorder and instability." ¹⁹ The central question regarding this theory is, How do the parts of society contribute to social order/disorder and stability/instability?²⁰ The idea here is that society is made up of many different parts that all contribute to its functioning – positively or negatively. Our textbook relates this theory to that of a human body – each body part has an individual function, but they all are interrelated and interdependent. This is just like society. Each part, whether it is a law or a custom, helps society function.²¹ Members of society try to reach "social consensus or cohesion" in which societal members work towards what is best for society.²² Emile Durkheim noted that there were two types of solidarity within a society – mechanical (seen in simple societies where people are bound together by the same values, beliefs, and common work) and organic (evident in more complex societies such as today's metropolitan cities like Los Angeles, Beijing, and Buenos Aires in which people are interdependent as their workload is different). Additionally, the American sociologist, Robert Merton further detailed the overall effect of "the parts overall effect on society, not just its contribution to order and stability"23 as the manifest functions (intended effects), latent functions (unintended effects), dysfunctions (disruptive consequence), and manifest dysfunctions (anticipated disruptions) Students must be aware that within this perspective there is a balance of the positive and negative effects and defends the existing social arrangements.

In the case of health care, Sociologist Talcott Parsons emphasized that good health and effective medical care ensure that society can function. If not, then there are consequences for society. I believe that this will be easy for students to understand as they are currently living through a pandemic and have seen and experienced what happens to their families, school system, our society and beyond. They will be able to look at this from a personal as well as collective view even being able to note the idea of the sociological terms, troubles (personal problem) versus issues (societal problem/large in magnitude). Parsons' term, sick role, is important as it is used to indicate who is truly sick. In a society, several criteria must be addressed to be considered "sick". First, a person must not be the cause of their issue – e.g., driving drunk versus crashing on icy

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

²² http://www.cliffsnotes.com/study_guide/Three-Major-Perspectives-inSociology.topicArticleId-26957,articleId-26837.html (accessed July 14, 2012).

²³ Joan Ferrante, *Sociology: A Global Perspective*, 28.

roads is viewed differently.²⁴ Second, an individual must want to get well and third, is expected to have the condition confirmed by a medical professional. Meeting all these criteria enables those around the sick person to be treat him as such – allowing him to be able to follow different types of social norms²⁵. E.g., using paid sick time, having others drop off food, Students who have previously taken psychology will know the reference to the medical model (using information/symptoms, be able to diagnose and treat the illness). Criticized because it views illness from a short-term angle not one in which people might suffer from a chronic illness, ignores social location of an individual and the physical-patient relationship as hierarchical does not consider individuals taking an active role in maintaining their health.²⁶

Conflict Perspective

"The conflict perspective focuses on conflict over scarce and valued resources and the strategies dominant groups use to create and protect social arrangements that give them an advantage over subordinate groups."²⁷ The principal question of this perspective is, "Who benefits from a particular social pattern or arrangement, and at whose expense?"28 This perspective focuses on the inevitable conflicts of all types and was born from Karl Marx's work on class struggle. His economic focus spoke to society's two groups, the bourgeoisie and the proletariat, and their connection to the means of production. The bourgeoisie consists of the group that is closest to the means of production, owning and overseeing land, labor, machinery, etc. while the proletariat comprises the group that owns nothing except for the labor that they provide. The bourgeoisie exploit the proletariat giving them only a fraction of the profit that they make for their labor. Obviously, in societies there are those who have or gain the resources while others do not – the haves and the have nots. This struggle leads to the consequence of dominant and subordinate groups. Dominant group members fight to maintain their interests using a variety of means. This includes a concept entitled a facade of legitimacy in which dominant group members justify their reasons for the why of what they have while subordinate group members continue their struggle to obtain some of the resources. The dominant group does this by sustaining the beliefs that the subordinate group is truly benefiting from the situation (has work, for example) and blaming them for their flaws that are preventing them from "their chances of financial success." ²⁹

²⁴ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 516.

²⁵ Ibid.

²⁶ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 517.

²⁷ Joan Ferrante, *Sociology: A Global Perspective*, 32.

²⁸ Ibid.

²⁹ Joan Ferrante, *Sociology: A Global Perspective*, 33.

This perspective focuses on the fact that because there are inequalities in society due to social class, race and ethnicity, and gender, there are inequalities in our health and health care. The disadvantaged are at greater risk for becoming ill and for services they may or may not receive. One thought that goes along with this perspective is that physicians "have tried to control the practice of medicine and to define various social problems as medical ones." Capitalizing on "characterizing social problems as medical problems and in monopolizing the treatment of these problems. Once these problems are 'medicalized,' their possible social roots and thus potential solutions are neglected." As an example, young girls may be receiving treatment from a variety of medical professionals (physician, psychiatrist) for an eating disorder but the "cultural roots in society's standard of beauty for women" is ignored. Criticisms of this approach state that this is far too cynical of physicians, and the medical field and that medicine has assisted people in our society and around the world.

Symbolic Interactionist Perspective

The third theory, Symbolic Interactionist, was introduced in the 1920s by sociologist George H. Mead. It centers on the question "How do involved parties experience, interpret, influence, and respond to what they and others are doing while interacting?"³³ To answer this question, sociologists focus on the interactions of people, paying attention to their use of their reflexive thinking. For example, when people are interacting with others would pay close attention to the symbols used to express themselves, interpreting these using their own prior knowledge about these symbols.³⁴ People make meaning of their personal interactions by using what they already know.

Health and illness are social constructs according to this perspective. "Various physical and mental conditions have little or no objective reality but instead are considered healthy or ill conditions only if they are defined as such by a society and its members (Conrad and Barker 2010)"35 meaning it is the social construction of a society. An example of this includes ADHD. It became an "illness" after the development of Ritalin, a drug that is used to help control it. 36

³⁰ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 517

³¹ Ibid.

³² Ibid.

³³ Joan Ferrante, *Sociology: A Global Perspective*, 36.

³⁴ Ibid.

³⁵ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 518

³⁶ Ibid

Additionally, there are many types of power symbols when it comes to the doctor/patient relationship: patients wait for the physician outside in the waiting room and then in the examination room sometimes minutes but usually much more than that. Although the doctor refers to the patient by the first name, the patient uses a title when addresses the doctor.

Culture

Many of these health-related concepts marry nicely with what we have been discussing in seminar to include culture and a cultural understanding. "Knowing about a society's culture, then, helps us to understand how it perceives health and healing. By the same token, knowing about a society's health and medicine helps us to understand important aspects of its culture."37 Culture is "the way of life of a people; more specifically, the human-created strategies for adjusting to their surroundings and to those creatures (including humans) that are part of those surroundings."38 Culture is divided into material and non-material components. When students explain what culture is – even at the high school level, they refer mostly to the material aspects. They can say food, clothing; sometimes they mention language as part of a person's culture when questioned. They do not always state the non-material components such as beliefs, values, norms, and symbols. Yet, these are essential to the understanding of people's way of life – and, in this case, the comparison of our society and that of another. National Geographic released a short video entitled, Tapestry of Life, which does a wonderful job depicting the multiple aspects of culture through a series of photographs of people around the world. In those photographs, one sees aspects such as birth, child rearing, music, dress, beauty, religious activities, war, amongst others. Culture is learned. It is transmitted from one generation to another where young people learn customs, habits, and attitudes informally through their primary agents – interactions with parents, friends, and the media as well as formally through schools, workplaces, and community organizations. Culture is shared which helps to create a sense of belonging. It is also adaptive and changes over time. Our textbook uses such examples as attitudes regarding premarital sex and how we record information from the typewriter to the iPad or laptop today.³⁹

For sociologists, there are three conceptual challenges when it comes to culture: describing it, determining who belongs to a particular cultural group, and identifying distinguishing characteristics to indicate how cultures are set apart from one another. Obviously, we will be learning about material versus non-material culture. However, in this case we will focus more on the nonmaterial culture that is more connected to the socialization process. It is the non-physical creations that cannot be seen or held (not physical objects) that include shared sets of meanings which people in the society interpret and understand the world. These include beliefs, values,

³⁷ Steven E. Barkan, *Sociology: Understanding and Changing the Social World, Comprehensive Edition*, 514.

³⁸ Joan Ferrante, *Sociology: A Global Perspective*, 48.

³⁹ Ibid, 49.

norms, symbols, and language. Beliefs are "conceptions that people accept as true regarding how the world operates and where the individual fits in relationship to others."8 Values are widely shared standards by which those in the society determine what is bad and good, proper, or improper, just, or unjust. These indicate general guidelines for the population. Examples include freedom and equality, achievement, and success, amongst others. Norms are divided into two categories: folkways and mores. Folkways are the type of norms that apply to the mundane of everyday life – and, if broken, it is not so much a critical issue. Examples include waiting for all people at a table to be served before eating, waiting in line, taking turns at a four-way stop sign. Mores are considered extremely important and vital to the functioning of a society because they help to ensure moral and ethical behavior that in turn maintains order. Examples include being sexually faithful to one's spouse, not committing murder, not being nude in public. Symbols are also a part of nonmaterial culture. A symbol is anything that stands for something else based on a shared meaning for people of a culture. These could include a handshake to symbolize friendship or courtesy, a wedding ring to show that the partners are "off the market", and a red rose indicating love. These can change over time as well as unify or divide a culture such as with the American flag versus the confederate flag. The most powerful of all symbols is language. It is a shared set of symbols that allow for individuals within a culture to communicate with one another. It helps them to influence one another, allow us to understand each other, directs our thinking, shapes our emotions, and promotes a sense of belonging.⁴⁰

Cultural Connections: Partnerships with Indigenous Communities

Much of our seminar focused on the ideas of partnerships with Indigenous communities. This was evident from the beginning from the text that we read for, Ancestral Lands of the Ese'Eja: The True People (a collaborative cultural mapping initiative), to the inclusion of the Lenape Indian Tribe of Delaware community members in our summer program as well as our future trip to the Peruvian Amazon to learn from and with the Indigenous peoples. Tricia Griffin, ACEER Foundation's Ethicist, came to speak to our seminar and her words really resonated with me. She presented information about ethical partnerships with Indigenous communities. Delving into the idea of culture is one that is natural in my sociology course and one that I have explored in other seminars at both the local and national levels. But her words took what is expected regarding culture and sociology to the next level, making me think of how I could my students do the same. I also think it tied in well with what I have seen in some presentations I have recently attended to include an acknowledgement of the ancestorial lands on which the institutions that are hosting these conferences/presentations. One of the presentation's overarching themes was cultural competency – where to begin. Griffin explained that cultural competency includes three components: see and be seen (ask how to address them), reciprocity (if they teach you must give something in return), and words/images matter "We are people of today, not objects of the

past." ⁴¹ Reflecting on her words, reminded me of our school's struggle a few years back to change our old mascot. This idea of cultural competency was non-existent to some of the alumni not quite fathoming the offensiveness of the imagery and name only thinking about what they believed was "their history". But Griffin made me think even deeper! I found it interesting that examples of words such as *ancient structure* versus *ruin* make a difference. Thinking about it now, I understand why, but it is something that I need to re-learn and so do my students. We use that term so often when discussing ancient civilizations. It is a mindset change that needs to occur on all levels and must include the Indigenous peoples themselves.

Just in the time that I have been teaching, I have seen more and more people acquiring louder voices to rightfully be heard by the majority. House Bills being passed assist with a more inclusive approach to for a multitude of people's stories and our collective history. To this end, as Griffin mentioned, it is vital that students have an awareness of their "own cultural worldview (i.e., the values and traditions that affect how you perceive the world and your place in it).⁴² In sociology, we start off with this, looking inward and then branch out to later include the understanding that you must be objective in your studies; indicating a willingness to learn about others, their lives, and activities. It is important for students to understand this as they move forward not only in their daily lives as they come across a variety of people personally and professionally.

Griffin also spoke to ACEER's policy as it was defined by and for the people doing the work which considers the Indigenous people – much like the cultural mapping initiative and goes back to what Chief Coker stated about asking for permission to "study or investigate" something to do with the local Indigenous groups, giving them the courtesy of knowing and asking for their blessing. How ACEER's policy is applied to the Ese'Eja Nation and the Lenape Indian Tribe of Delaware will be discussed more in the continuation of this project as projected visits will allow for more observation, interaction, and understanding on my part.

How Culture Impacts Healthcare Systems and Ideas

Relationships with Plants

One comment from our first seminar together resonates with me as I connected it to what I have been reading. I cannot remember who said it, but it was a Leonardo da Vinci quote – "Learn how to see. Realize that everything connects to everything else." This made me think about sociology and the concepts within the discipline – each component of our society is interconnected. But as I began my research, it also applies to what I have been reading about the Indigenous peoples and their beliefs in the interconnectedness of all creatures to Mother Earth – humans, animals,

⁴¹ Delaware Teachers Institute Amazon Seminar, Tricia Griffin, MPH, M. Bioethics, Guest Lecturer.

⁴² Ibid

and plants alike. Narby wrote, "The Peruvian Amazon is the epicenter of world biodiversity, with more species of mammals, reptiles, birds, trees, amphibians, ants, butterflies, and so on than any other place of comparable size in the world. It tops the charts of biodiversity." The Ashaninka people had names for each plant and a use for over half of them. "They had plants that they used as food, building materials, medicines, cosmetics, and dyes. They knew plants that accelerated the healing of wounds, cured diarrhea, or healed chronic backache." He asked HOW did they know this. "Their answer was enigmatic: they said knowledge about plants come from plants themselves. Their shamans take ayahuasca, which is a blend of hallucinogenic plants, or they eat tobacco concentrate and speak in their visions with the essences that are common to all life forms and that are sources of information. They said nature is intelligent and speaks to people in visions and dreams." 43

The Amazon is the world's largest rainforest with the largest river. It is biodiverse (plants and animals) as well as diverse communities of people with their own distinct culture, traditions, and language. The area and their peoples face a variety of challenges – gold mining, deforestation, and lack of knowledge regarding biodiversity and the protection thereof ⁴⁴ This matter because the area is home to people, the largest score of carbon (climate change) and the biodiversity. The sunlight and rainfall define tropics. The rainfall is evenly distributed over the course of the year. All this information was new to me, my understanding from what Dr. Nora Bynum described is that from these two things the mutation of DNA happens at a higher rate which allows for a higher rate of mutation of species⁴⁵ – for this unit and beyond, we will focus on discovering nature around us (local to global) including local plants. My hope is that the Plant Science teacher in our building will collaborate with me on this part of the unit. The idea is that we will understand the interconnection between even the Amazonian plants and their medicinal connections to some of our modern medicines – that the cultural differences

"In biodiversity 'hot-spots' such as the Amazon, the conservation of nature will require a blending of Indigenous knowledge and science but bringing these two forms of knowing together is not going to be easy." I think this is where the idea of culture and ethics come into play. "Each time you see the plant; the story is reinforce with your mind – when you see a plant around you; you don't just see a plant – you see a reinforcement of lots of important lessons from life and it happens constantly throughout your day." 47

⁴³ Narby, 43.

⁴⁴ Delaware Teachers Institute Amazon Seminar, Jeff and Joanna Geoff of the Alliance for Sustainable Amazon, Guest Lecturers.

⁴⁵ Delaware Teachers Institute Amazon Seminar, Dr. Nora Bynum, Guest Lecturer.

⁴⁶ Narby, 45.

^{47 73}rdStProductions. "Origins of Plant Uses: Mythology as Truth." YouTube. May 18, 2012. Accessed October 02, 2021. https://www.youtube.com/watch?v=A5js7pIP510.

Strategies

Collaborative Learning/Groupwork

Students need to learn how to work together to accomplish goals – those set by the teacher and themselves. This is a basic requirement for many positions or jobs that they will hold in the future. Working together, relying on each other helps to build team-working skills. This strategy is somewhat challenging for us in that there are two groups of students at three different high schools. For the intense conversations that follow the readings of important concepts such as gender, race, or religion a facilitator must be certain that there is a strong sense of camaraderie, trust, and willingness to work with and listen to others in the group. In collaborative learning, each group member is accountable to each other, dependent upon each other and contributes the established goals. Everyone has some strength to share.⁴⁸ Together, more is accomplished. Opportunities to learn about each other before and while working help to promote the collegiality and cohesiveness necessary to work well together. Individual and group evaluations are necessary to monitor the group's work (product) and their progress in teamwork.

The 3Ys

I was introduced to this thinking tool in the Fulbright course I participated in with a cohort that at some point will travel to somewhere in the world and collaborate with educators from a particular country. Due to COVID, my participation was delayed! However, there were many parts of the program that I have incorporated into my teaching, for which I am thankful. This thinking tool – the 3 Ys – has become an integral part of my instruction. It focuses on having students reflect on any concept and their own thinking about it from self to local to global. I particularly like how they can reflect on the concept – e.g., paid maternity/paternity leave and think about the focus is on three questions (Ys or Why's): (1) Why might this [topic, question] matter to me? (2) Why might it matter to people around me [family, friends, city, nation]? (3) Why might it matter to the world?⁴⁹ Making these connections enables students to better understand the importance of a topic and how it affects individuals as well as societies. It is a good way for them to see sociology at work. I think it also helps them with their level of empathy towards others.

Primary Sources/Document Analysis

I find that my students seem to want activities in which they are to read a piece of text – not too difficult – and answer some questions. The idea of having difficulty, needing to think, and not

⁴⁸ http://www.studygs.net (accessed July 13, 2009).

⁴⁹ http://www.pz.harvard.edu/sites/default/files/The%203%20Whys.pdf (accessed on October 10, 2021).

knowing if they are "thinking correctly" – meaning, getting the right answer is something that I am constantly battling. Students complain, get upset, and all too often give up. Since I know that students are expected, when they go to college, to read and comprehend multiple, difficult texts, analyze them, and use these for application purposes – I know that I need to help them do this – especially since they will most likely be doing these things on their own. The use of primary sources is a rich opportunity for students to be engaged in the learning process, construct knowledge, and develop critical thinking skills. 50 Students will have access to information on a more personal level – being able to empathize with someone's narrative versus an excerpt from a textbook about a historical account enables students to humanize historical content. Using multiple sources also allows for students to view a place in time or event from multiple perspectives allowing them to "see" more. According to the Common Core standards students must be able to use primary (and/or secondary sources) to determine its key ideas and details as well as be able to interpret the craft and structure of the words used and the complexity of the piece. It asks that social studies teachers assist in teaching students how to read texts. The reading for the informational text section highlights a variety of things that we should be doing with our students. Regarding Key Ideas and Details, we should help them to: cite specific textual evidence from sources, connect insights to better understand text, determine the central ideas or information from a source, and provide a comprehensive summary with key ideas and details to support them. To help with this, the National Archives has a variety of document analysis worksheets that serve as guides for students while they will look and evaluate a variety of primary sources including photographs, cartoons, posters, and motion pictures, among others. I will modify the Written Document form for my students to use so that it also reflects the above Common Core standards that I want them to achieve. Additionally, there will be a section that asks students to reflect/write down what they want to share with others in the class as I am also trying to have them develop their speaking skills.

Close Reading

The Common Core Standards ask students to close read texts. This includes having students read and reread texts for deeper meaning. Number the paragraphs so that it easy to acknowledge which paragraph is being referred to when citing evidence, chunk the text so that it does appear to be too overwhelming. Have students draw lines at various points – e.g., paragraphs 1-4; 5-8; 9-12. This should happen in areas that have a natural division. The author states that this responsibility can be relinquished to students throughout the course of a school year. Underline and circle with a purpose. One might be quick to remember when he began to highlight texts and the overuse that occurred. Directing students to what is important is vital in their success in understanding the text. Students will circle symptoms of the diseases in the text while

⁵⁰ http://www.loc.gov/teachers/usingprimarysources/whyuse.html (accessed July 10, 2014).

underlining examples. Use the left margin to summarize the chunks of text and the right margin to ask questions.⁵¹

Activities

Nature Walks

One of my favorite moments of our seminar is when we were on our first nature walk at the Stroud Water Research Center. Over the past year of quarantine, I had taken daily walks of 2-5miles. During that time, I always took one photograph of something that I saw – a flower, a tree, a shrub, or a neighbor's flag. Something that struck me. Walking alone I listened to the sounds of the woods and neighborhoods nearby. I became more aware of who and what I was surrounded by. However, it is obvious that I still have much more work to do by our Stroud walk! During the walk, we were to record our observation. Mine included the bubbling of the creek, a variety of bird noises, a multitude of trees, including different shapes and heights. There were also white tubes present designed to stabilize tree trunks. Additionally, I noticed the uneven ground as I was walking as a previous knee injury still deters me at times! Why I say that I still have much room for improvement is that when we debriefed, I was struck by what Chief Coker stated regarding the birds, "They really like this place." Although we both had the same general observation his was so much more insightful – it was about the birds not about himself. He also stated that we needed to relearn our observation skills. I teach and practice listening skills with students but now want to do the same with observation skills. So, we will participate in a variety of nature walks. There are a few small parks in our area. We will walk over to those and students in their notebooks/sketchbooks, will take observations such as we did during our summer retreat and as we will continue to do as we travel to the Amazon. This will help them to work on the art of observation just as I will! They will also spend time with the camping chairs I purchased, sitting, and sketching what they are observing. We have already done this a few times this year for material culture examples of our school. The experience has been fascinating! Their silence is profound. Being outdoors has many benefits for students including enhancing their ability to focus attention, relieving stress, engaging interest, increasing social connection and creativity.⁵²

Photograms/Cyanotype Paper

As in our summer program, my students will use cyanotype paper to create photograms of plant specimens they collect during our nature walks. I would like for them to do this not just on our walks but around where they live as well. In 1842, Sir John Herschel invested this camera-less technique in which the traditional chemical practices of photography were used to reproduce

⁵¹ http://iteachicoachiblog.blogspot.com/2012/06/five-simple-close-reading-strategies.html Accessed July 11, 2015.

⁵² https://greatergood.berkeley.edu/article/item/six_ways_nature_helps_children_learn (accessed November 15, 2021).

technical drawings. It is much like "photocopying".⁵³ Not only is this an interactive activity with natural elements but it allows for them an opportunity for self-expression and creativity that they do not always get in our building as there is no art program.

Working in the School Greenhouse

First, I picture working with our school's plant science teacher to expand who gets access to the curriculum created as well as providing a hands-on opportunity to learning. I believe this to be extremely important especially after the on-line and isolated learning we have experienced this past year. I want students to come to school and be super excited about what we are doing, spending time outside, and learning more about their local resources to better understand the responsibility we must protect them and to be able to connect that idea to a broader perspective. After acquiring information about Shamanism, healing, and Amazonian plants, we will work alongside local Lenape Indigenous leaders to better understand the past/present of the local medicines and healing practices, making the local to global connections of Delaware to the Amazon. Learning about, growing, and tending to "their" plants, my hope is that this serves a dual purpose of honoring the Indigenous voices while helping to continue the healing of the disrespect caused by our former school mascot which we successfully changed a few years back. I am thinking this part of the unit will be more long-term looking towards the next year's seminar participation.

Health Science/Medicine Alphabet – PSA Campaign

I see students collectively creating a Health Science/Medicine Alphabet in which they define different vocabulary terms such as (A) Amazon, (E) Ethnobotany, (P) Pharmacopoeia and (S) Shamanism – including multiples for each letter of the alphabet. During this unit students will be introduced to a variety of new vocabulary words which they most likely have never thought about or have been exposed to before. From the research I conducted from a previous unit as well as from my own studies, I know that students need multiple interactions with a word or concept, and they must interact with those to have them go from their working (short-term) to long-term memory. So, this type of activity/project is something that can be both now and later.... progressive if you will. Expanding upon these words they will find evidence in texts – primary, secondary, photographs they have taken, voices of perhaps the teachers/students in Peru or from online sources to support the definition, and lastly, investigating these terms in society (past and present). From this, students will create a school/district PSA campaign connecting sociology, health sciences, and medicine highlighting the 3 Ys - Why is this important/matter to me, those in my community, and the world?

Resources

⁵³ https://theartyteacher.com/exploring-cyanotype/ (accessed November 15, 2021).

73rdStProductions. "*Origins of Plant Uses: Mythology as Truth.*" YouTube. May 18, 2012. https://www.youtube.com/watch?v=A5js7pIP510 (accessed October 2, 2021).

This video out of a university in Hawaii, has a professor explaining information about the importance of mythology as truth. This is informative and highlights the idea of storytelling.

Barkan, Steven E. *Sociology: Understanding and Changing the Social World.* Boston, MA: Flat World, 2021.

This textbook (the health chapters) will be used in class.

Bowater, Emma. "Exploring Cyanotype." https://theartyteacher.com/exploring-cyanotype/ (accessed November 15, 2021).

This short article speaks to the idea of using cyanotypes with students in the classroom. Although it is about a photography class, it will work well with any class.

Bussmann, Rainer W. *The Globalization of Traditional Medicine in Northern Peru: From Shamanism to Molecules*. https://www.hindawi.com/journals/ecam/2013/291903/ (accessed on November 8, 2021).

Recommended, this paper, has quite a bit of technical information, but also excerpts can be used with students to have them better understand the emergence of traditional medicine.

Eaton, Evelyn. *The Shaman and the Medicine Wheel*. Wheaton, IL: Theosophical Pub. House, 1994

Personal account of the strength of religious traditions in healing. This focuses on American Indian healing rituals.

Ferrante-Wallace, Joan. *Sociology: A Global Perspective*. Stamford, CT: Cengage Learning, 2015.

Our course textbook – chapter on Culture.

Green, Christine. For Curanderos, Cures Come from Ground Up. https://www.whetstonemagazine.com/journal/for-curanderos-cures-come-from-the-ground-up (accessed on November 12, 2021).

Interesting article about the idea that food can cure illnesses. Students will be able to relate to this as people are focused on "healthy eating." Additionally, may be able to use this as a springboard for types of plants to grow later in the greenhouse.

Greenfield, Lauren. Thin. https://www.instituteartist.com/filter/thin/feature-Thin-Lauren-greenfield (accessed on December 8, 2021).

This photographic essay and documentary film depicts eating disorders. This resource should be viewed prior to use with students and determined if appropriate. It may be considered a trigger for some.

Griffin, Tricia, MPH. "Ethical Partnerships with Indigenous Communities." Lecture, DTI Seminar, September 27, 2021.

The ACEER Foundation Ethicist explains about working collaboratively with Indigenous communities.

Icon, Symbol, Index: C.S. Peirce's Three Signs. https://www.youtube.com/watch? v=184UQqrOtMg&t=1s (accessed on December 10, 2021).

The YouTube video is a 4-minute explanation of the Philosopher, C.S. Peirce's explanation about icon, symbol, and index. This can be used with the Symbolic Interactionist Theory information.

Kuo, Ming. "Six Ways Nature Helps Children Learn." (accessed November 15, 2021. Provides information regarding the benefits for students to learn outdoors.

Kuo, Ming, Barnes, Michael, and Jordan, Catherine. "Do Experiences with Nature Promote Learning? Converging Evidence of a Cause-and-Effect Relationship." (accessed October 28, 2021).

Provides research-based information about the benefits of nature-based learning.

McCartlin, Glenn, and Jim Rementer. "Lenape Indian Medicines." (accessed June 16, 2021). This paper gives information on Indian Medicines.

Moerman, Daniel E. *Native American Medicinal Plants: An Ethnobotanical Dictionary:* Portland: Timber Press, 2009.

A list of plants and their medicinal uses.

Mull, Dennis, M.D., M.P.H., and Mull, Dorothy, S., Ph.D. Western *Cross-cultural Medicine: A Visit with a Curandero*. Journal of Medicine 1983 Nov; 139 (5) 730-736.

Although this is set in California, it does have an interview with a curandero explaining his practice.

Narby, Jeremy, Ph.D. "An Anthropologist Explores Biomolecular Mysticism in the Peruvian Amazon." Shaman's Drum 74 (2007): 43-46.

Article explains about the importance of plants to the Amazonian peoples.

Plotkin, Mark J. Ph. D. Tales of a Shamans Apprentice: An Ethnobotanist Searches for New Medicines in the Amazon Rain Forest. Peter Smith Pub, 2001.

Serves as assistance in understanding a bit more about the Amazonian Shaman. Many vocabulary words associated with the topic are included and explained. The book provides a story-like quality which students will appreciate.

Plotkin, Mark J. *The Amazon: What Everyone Needs to Know*®. New York: Oxford University Press, 2020.

Information regarding the Amazon.

"Social Determinants of Health - an Introduction." YouTube. June 25, 2017. https://www.youtube.com/watch?v=8PH4JYfF4Ns. (accessed October 02, 2021). This short video explains about the social determinants of health which will help to orient students to our topic.

Solomons, Natasha, director, 1989. *Doctors of Two Worlds*. Royal Anthropological Institute. Live footage of a modern medicine physician is living in the Andes Mountains, working with villagers, and medicine people.

Tafur, Joseph, and Gabor Maté. *Fellowship of the River: A Medical Doctors Exploration into Traditional Amazonian Plant Medicine*. Phoenix, AZ: Espiritu Books, 2017. This book details a medical doctor's experience with Amazonian sacred plants including ayahuasca and how they can aid in the healing process.

Torres, Nigel, and Hickes, Janet Froeschle. *Cultural Awareness: Understanding Curanderismo*. https://www.counseling.org/knowledge-center/vistas/by-subject2/vistas-client/docs/default-source/vistas/article 396cfd25f16116603abcacff0000bee5e7. (accessed on November 13, 2021).

Although this is a counseling article, it focuses on cultural awareness which is extremely important for students to better understand when learning about others.

TEDxTalks. "The Intimate Relationship of Plants and People | Maria Fadiman | TEDxCancún." YouTube. November 06, 2015. (accessed October 02, 2021). https://www.youtube.com/watch? v=st4K RYw16E.

This ethnobotanist explains the integral relationship between people and plants.

Weslager, Clinton Alfred. *Magic Medicines of the Indians*. Wallingford, PA: Middle Atlantic Press, 1976.

This book has historical documents and primary source testimonies to explain about medicinal plants. Additionally, some of these "stories" can be used with students for them to better understand the topic.

World Health Organization (accessed October 1, 2021). https://www.who.int/patientsafety/education/curriculum/course1a_handout.pdf
Definitions of key terms.

https://blog.scienceandmediamuseum.org.uk/introduction-cyanotype-process/ Accessed November 14, 2021.

General information about the cyanotype process.

Appendix A

There are several Delaware Technical Community College Wide Core Course (CCC) Performance Objectives that I am mandated to follow as I plan my units of instruction. In this unit I will be using one of them: Analyze personal reactions to sociological concepts, principles, and processes. However, it is subdivided to include (8.1) Evaluate relevant sociological concepts and principles applicable to understanding daily life and (8.2) Formulate personal reactions to sociological concepts, principles, and processes.⁵⁴ Additionally, I am adding one of the National Consortium for Health Science Education standards to be able to apply the idea of illness and health care in our society as well as in others to include Standard 9: Health Maintenance Practices – in particular, 9.1.4, which reads: Investigate complementary and alternative health practices as they relate to wellness and disease prevention. I envision focusing on the Social Institution of Health and Medicine, in which students would (1) Describe how the nations of the world differ in important indicators of health and illness and (2) Explain the health-care model found in nations other than the United States. To do so, students will need to understand the medical benefits derived from the Amazon (the science behind it) while also considering the Indigenous peoples of the area pharmacopeia and the connections to modern medicine. Lastly, the unit will address the Common Core Standard (Integration of Knowledge and Ideas CCSS.ELA-Literacy.RH.11-12.7) in which students will: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) to address a question or solve a problem. I believe this question or problem could focus on the idea of looking at the complexity of health care – how there is a relationship between local and global factors when addressing the individuals' health.

Students will be participating in a variety of activities to learn about these standards. These will include reading different texts (historical and personal accounts), viewing videos of all types of healers – modern and traditional – and their work. Some of these multi-modal texts will be mandatory (e.g., historical, and sociological information) while others will be choice-based. The main goal is that students will be able to compare health care systems locally and globally noting how society and culture come into play. Lastly, they will build a foundation for their subsequent learning of the sociological concepts of social stratification.

Enduring Understandings are the big ideas of this curriculum unit and are taken from the Core Concepts of a textbook's chapter on Health. Students will understand that "people's social backgrounds have an influence on the quality of their health and health care and that a society's culture and social structure also affect health and health care."55 They will also learn that "Scientific medicine is a relatively recent development in the history of the world. For much of human history, religious and spiritual beliefs, not scientific ones, shaped the understanding of health and the practice of medicine."56 Additionally, curanderos and shamans are as vital as

⁵⁴ https://syllabi.dtcc.edu/syllabus/soc-111 (accessed on April 5, 2021).

⁵⁵ Sociology: *Understanding and Changing the Social World, Comprehensive Edition*, Steven E. Barkan, 519.

⁵⁶ Ibid, 535.

physicians to some societies. Students will learn that ethnobotany is the scientific study of the traditional knowledge and customs of a people concerning plants and their medical, religious, and other uses. Lastly, they will be able to identify the connections and interactions between traditional and modern medicine.

These understandings lead to Essential Questions that guide students throughout this unit of each of our sessions. These questions are those that students will investigate as we better understand health care and what that looks like here and in the Amazon. These will be paired up with the Learning Targets above and include: What are the basic views of the sociological approach to health and medicine (functionalist, conflict, and symbolic interactionist)?, How are the sociological concepts of social stratification and culture related to health care?, What is a curandero, what role does one serve in a society, and how does this relate to health care practices?, Why is the Amazon referred to as a living pharmacy?, What is ethnobotany and how is it related to health care?