

An Active Learning Approach to Teaching Social Determinants of Health

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Abstract

This active learning exercise is designed to deconstruct the impact of social determinants through the assumption of randomly selected personas. As an active learning exercise, it provides opportunities for discussion, problem solving, writing, and synthesis, while incorporating multiple learning style preferences. Part 1 involves assessing the individual social determinants at work. Part 2 involves exploring ways said determinants can enhance community health through collaboration. Assumption of personas unlike one's own facilitates an open discussion of social position and ranges of factors influential to health without potentially evoking a sense of defensiveness associated with personal privilege (or the lack thereof).

Keywords

active learning, social determinants of health

Many disciplines are catching up with what we in public health have known for decades. Positive impact on health and other dimensions of life are defined by social determinants. Stated another way, the choices people make are constrained by the choices people have and perceive they have. Despite supportive research on their influence, teaching practical applications of determinants' impact in classroom settings can be complicated. Weaving an understanding of the role of social determinants on population health requires not only an understanding of a target population but also one's own social position. Helping students deconstruct their privilege in relationship to others is, however, a tricky endeavor. One wants students to remain open to exploring culture and the role of social determinants of health (SDOH) while avoiding, as much as possible, the disequilibrium caused by feeling attacked for access and opportunities they do not control.

The articulated class exercise is also influenced by a study funded by Robert Wood Johnson Foundation, which sought to understand general populus' thoughts and feelings about health in the United States. The resulting findings informed a framework for describing social determinants plainly and without political overtones that have merit as we teach our students about these important concepts. For purposes of this lesson, the following are the most relevant:

1. Americans do not spontaneously consider social influences on health

2. They do, however, recognize social factors and see their importance when primed
3. Americans do not resonate with the language of "social determinants of health," but they do resonate with the core constructs (Carger & Westen, 2010)

As public health professionals, we seek to expose our students to different ways of thinking about social position and its influence on health as they embrace professions that will require engaging with diverse populations.

Being prepared to apply an in-depth understanding of the role of determinants is also embedded in the Council on Education for Public Health competencies and the Association of Schools & Programs of Public Health Framing the Future goals. Both organizations articulate the importance of determinant knowledge in advancing population health and reducing disparities, particularly given predictions that a decreasing proportion of MPH graduates will work in traditional settings, but rather participate in diverse professions tangentially and directly impactful to health (Association of Schools & Programs of Public Health, n.d.; Council on Education for Public Health, n.d.).

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Teaching SDOH through readings and lectures is one way to expose students to their impact. However, reading and lectures alone rarely challenge students to carefully deconstruct social position, resources, and the ranges of choices available to populations they might serve in their careers. This is particularly the case for students who have yet to enter the workforce. While admittedly a seed-planting exercise, role-playing provides an opportunity to think about the complex interactions influencing health behaviors and outcomes taking into account varied learning styles. Students are better equipped to facilitate population health when they possess a practical understanding of the direct and indirect ways social determinants facilitate or deter health.

Theoretical underpinnings for the proposed exercise are informed by active learning as a pedagogical strategy. Active learning is used in many disciplines and its functional definition is idiosyncratic to content. One concise definition was articulated by Prince (2004), who notes, "Active learning is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing" (p. 223). What is common across definitions is a commitment to introduce content to students in ways that allow for practice, experimentation, and application (Bertsch et al., 2007; Callender & McDaniel, 2009; Ramirez-Loaiza et al., 2017). Active learning is more student-centered than direct faculty instruction, and facilitates collaboration and critical assessment of course content (Finelli et al., 2018; Park & Choi, 2014).

Objectives

At the conclusion of the exercise students will be able to (a) describe how positive and negative social determinants influence health; (b) demonstrate how an asset approach to resolving a community health issue elevates the agency of those with low social control; and (c) engage in critical discussions about the role of social determinants in a ways that supports open dialogue minimizing the potential sensitivity associated with one's personal privilege (or lack thereof).

Target Population

This exercise has been used in a Masters of Public Health core course and is appropriate for upper-level undergraduates and graduate students.

Materials and Resources

There are two ways to conduct the exercise. Option 1 works best with class sizes of 30 or less, and Option 2 for larger class sizes. Readings and lectures about social

determinants prior to the exercise are optional. Historically, I have found there is value in conducting the lesson prior to assigning readings because it allows the professor to assess the baseline knowledge of students. The social determinant assessment sheet (Table 1) is the same document used for assessment prior to the role-playing and keeping track of points and currency associated with the selected persona (Table 3). Both options use Tables 1 to 4.

Procedure

Part 1

Step 1 (Options 1 and 2)

- As students enter, they are provided a sheet with social determinants listed in Table 1.
- They assess the influence of the determinant based on the World Health Organization (n.d.) definition of health.
- Discussion ensues in small groups and as a class about rationale for selections.

Step 2 (Options 1 and 2)

- Students randomly select from a basket of identities. If they select a persona close to their own, they are instructed to select again.
- There are four identities per town. The identities are designed to prompt exploration of different dimensions of social and cultural capital in a national and community-specific setting.

Step 3a (Option 1). Money (change/coins) is made available in piles either throughout the room or in the front. The facilitator calls out all of the determinants noted on the assessment sheet and the monetary value assigned using Table 3 (education, chronic disease, health insurance, primary language, employment, citizenship, race/ethnicity, gender, housing, community position, faith tradition, community environments, and health care access). Students then collect the appropriate amount of money based on their assigned personas. If a determinant is called that is not explicitly noted on the persona sheet, students are instructed to make assumptions and keep track of them.

Step 3b (Option 2). Students are instructed to independently assess the social determinants of their personas using Table 3. If a determinant is not explicitly noted on the persona sheet, they are instructed to make assumptions and keep track of them.

Step 4 (Options 1 and 2)

- Each student totals the amount of money (points) they have.

Table 1. Social Determinants Assessment Sheet.

Determinant	Strongly deters health	Moderately deters health	Neutral to health	Moderately supports health	Strongly supports health
Education level					
College completion					
High school diploma					
Non-U.S. degrees					
No high school diploma					
Chronic disease					
No chronic disease					
Controlled chronic disease					
Poorly managed chronic disease					
Health insurance					
Employer-based insurance					
Government subsidized insurance					
No insurance					
Primary language					
English fluency					
Bilingual					
Poor or no English fluency					
Employment					
Full-time with benefits					
Full-time without benefits					
Part-time without benefits					
Unemployed					
Citizenship					
U.S. citizen by birth					
Naturalized citizen or valid green card					
Undocumented					
Race/ethnicity					
White					
Black/African American					
Latinx					
Native American, Hawaiian and Alaskans					
Other					
Gender					
Male					
Female					
Transgender					
Nonbinary					
Transitioning					
Other					
Housing					
Own home					
Renting housing					
Housing insecure					
Homeless					
Community position					
Position of mainstream influence and power					
Position of personal community influence and or power					
Neutral					
Ostracized by personal community					

(continued)

Table 1. (continued)

Determinant	Strongly deters health	Moderately deters health	Neutral to health	Moderately supports health	Strongly supports health
Faith tradition					
Christian					
Agnostic					
Atheist					
Moslem					
Jewish					
Other					
Community environment					
Safe walks to school					
Unsafe walks to school					
Relatively toxin free					
Articulated toxic risk					
Densely populated area					
Rural community					
Affluent suburb/town					
Health care access					
High-quality local health system					
Health care available locally					
Minimal local health providers					

Table 2. Sample Personas/Identities.

<i>Location 1—Person A</i> You are a White, healthy, female, college educated Episcopal priest recently assigned to predominantly Spanish-speaking parish and you speak Spanish.	<i>Location 1—Person B</i> You are a single Latino father raising a daughter. You graduated from high school, are bilingual, and have a steady job at a warehouse store.	<i>Location 1—Person C</i> You are an African American male who served time for a felony (a crime you committed at 15 but you were convicted as an adult). After your release you earned an associate's degree and have dedicated significant time to aiding other former felons in securing voting rights and obtaining employment. Because of your efforts the local city council gave you an award.	<i>Location 1—Person D</i> You are fourth-generation college-educated African American female and a member of the local Episcopal church. You regularly volunteer at the local homeless mission and are in charge of the local bank's grant program for community initiatives.
<i>Location 2—Person A</i> You are a college-educated Pakistani-American Imam assigned to a congregation in a small rural community.	<i>Location 2—Person B</i> You are a single White mother raising a biracial daughter. You are a clinical psychologist in private practice.	<i>Location 2—Person C</i> You are a female high school graduate in this small rural community who struggled with clinical depression as a teen. After years of therapy and supportive medication you are seriously considering going back to school to become a school counselor.	<i>Location 2—Person D</i> You are a college-educated Korean-American male whose Caucasian father was mayor of this rural community. You plan to run for your father's seat.
<i>Location 3—Person A</i> You are a White, diabetic, male, college-educated Presbyterian minister recently assigned to predominantly Spanish-speaking congregation and you do not speak Spanish.	<i>Location 3—Person B</i> You are a White female high school dropout. You are unemployed and recently had a baby (your reason for dropping out). Your parents are prominent in the community and disowned you when you told them you were pregnant. You are currently living with friends until you can find a job.	<i>Location 3—Person C</i> You are an African American female high school graduate who staged a nationally televised sit-in against a toxic waste management company. You got tired of watching the women in your community suffer what seemed to be unusually high numbers of miscarriages and cancer. After your granddaughter was diagnosed with cancer you had had enough. You did some research and began to make the connection between sickness and the path of trucks carrying PCB.	<i>Location 3—Person D</i> You are a second-generation Guatemalan male high school graduate. You run a very popular boutique and are an elder in the Presbyterian church. You only speak English.

(continued)

Table 2. (continued)

<i>Location 4—Person A</i>	<i>Location 4—Person B</i>	<i>Location 4—Person C</i>	<i>Location 4—Person D</i>
You are a Latino male, college-educated Imam recently assigned to linguistically diverse mosque (you are fluent in Spanish, Arabic, and English).	You are an African American, asthmatic, female college-educated Baptist minister assigned to a church in the community where you grew up. You have been welcomed home and many of the people who supported your matriculation in college are members of your congregation.	You are a male Native American youth activist. You are still in high school and have created an organization that trains youth to be peer mentors to increase graduation rates. Because of your efforts the local city council gave you an award for your efforts.	You are an openly gay college educated female K-12 teacher who is a member of a welcoming church congregation but largely homophobic larger community.

Table 3. Persona Determinants of Health Assessment Scoring ____ Cash ____.

Determinant	Strongly deters health (1 point/\$0.0)	Moderately deters health (2 points/\$0.01)	Neutral to health (3 points/\$0.05)	Moderately supports health (4 points/\$0.10)	Strongly supports health (5 points/\$0.25)
Education level					
College completion					
High school diploma					
Non-U.S. degrees					
No high school diploma					
Chronic disease					
No chronic disease					
Controlled chronic disease					
Poorly managed chronic disease					
Health insurance					
Employer-based insurance					
Government subsidized insurance					
No insurance					
Primary language					
English fluency					
Bilingual					
Poor or no English fluency					
Employment					
Full-time with benefits					
Full time without benefits					
Part-time without benefits					
Unemployed					
Citizenship					
U.S. citizen by birth					
Naturalized citizen or valid green card					
Undocumented					
Race/ethnicity					
White					
Black/African American					
Latinx					
Native American, Hawaiian and Alaskans					
Other					

(continued)

Table 3. (continued)

Determinant	Strongly deters health (1 point/\$0.0)	Moderately deters health (2 points/\$0.01)	Neutral to health (3 points/\$0.05)	Moderately supports health (4 points/\$0.10)	Strongly supports health (5 points/\$0.25)
Gender					
Male					
Female					
Transgender					
Nonbinary					
Transitioning					
Other					
Housing					
Own home					
Renting housing					
Housing insecure					
Homeless					
Community position					
Position of mainstream influence and power					
Position of personal community influence and or power					
Neutral					
Ostracized by personal community					
Faith tradition					
Christian					
Agnostic					
Atheist					
Moslem					
Jew					
Other					
Community environment					
Safe walks to school					
Unsafe walks to school					
Relatively toxin free					
Articulated toxic risk					
Densely populated area					
Rural community					
Affluent suburb/town					
Health care access					
High-quality local health system					
Health care available locally					
Minimal local health providers					

- In small groups a discussion is held about how they felt as determinants were called (and scored) using the following guiding questions. Guiding Questions
 - How might different education levels act as a determinant of health?
 - Why might higher education degrees earned in another country act as a determinant of health in the United States?
 - What social determinants in your persona influence the state of chronic disease?
 - How might having a managed or unmanaged chronic disease influence other health spheres (e.g., relationships, one's community interface)?
 - Students are also instructed discuss their assumptions if a determinant was not specifically noted.

Part 2

Step 5. Students gather in localities to develop a public health intervention to address an assigned public health issue where the persona with the poorest SDOH

Table 4. Public Health Initiative by Locality.

Location	Public health intervention
Location 1	Empowering single fathers to exercise with their children
Location 2	Advancing teen mental health
Location 3	Preventing teen pregnancy
Location 4	Improve high school graduation rates in the diverse racial and ethnic student population

(least money or points) has the most insight. The determinant(s) influencing that health target are up to the group to decide based on the expertise provided by their personas.

- Each locality totals the amount of money (points) they have and multiply it by \$100,000 to determine their budget.
- They then create a public health intervention to address the assigned topic.

Step 6. Students report to the full class by locality and answer the following questions.

- Which persona had the most money (points)? Who had the least?
- Who possessed the most direct experience that would aid in the development of the proposed public health program?
- What social determinants did your program address?
- Why did you select those determinants?
- What is your intervention?

Step 7. The written reflection assignment at the conclusion of the exercise is as follows:

- Consider your community and assigned persona.
- Select three social determinants that you scored and describe why you believe they influence health in general (positively or negatively) for your selected persona. Remember to note which persona you selected.
- Consider the varied SDOHs, social positioning of your persona and their influence on the group intervention in your response. (2–3 pages; Due . . .)

Implementation Suggestions

The determinants for purposes of assessment, the localities, and their assigned health issues are informed by local municipalities and their determinants. As a state

university, most of my students are familiar with the demographic characteristics of the exercise's localities. The familiarity, even if only in name, provides a practical and relevant anchor for the exercise that encourages removal of determinant conversations from the abstract to the practical. There is value in this configuration; however, there is also value in creating "towns" unfamiliar to students, which I suggest should then include descriptions when the exercise reaches that point.

Table 2 sought to provide some examples of personas used in the exercise. Depending on the class size, one could retain the four locality-based personas and change the public health initiative to accommodate more groups, or additional identities could be created. One of the personas bears my characteristics, which I do not reveal until the exercise is over. I include it for two reasons; first, my background defies common assumptions about a person of my background in the United States, and second, it adds an anchor of reality to the exercise.

Students' reflection papers provide opportunities for faculty to address bias revealed in the exercise, as well as assessing students' understanding of the role of social determinants on population health. For example, as examples of bias one recent student wrote:

My persona was a college-educated Pakistani-American Imam who is assigned to a congregation in a small rural community. From the outset of this in-class exercise, I became acutely aware of my own assumptions about the location that my person was assigned to. I immediately found myself associating the word "rural" with categories such as "white," "southern," and "Christian." I had to catch myself as I made these assumptions and make sure that I was being cognizant not only of their presence, but also of the implications that they could have had on my responses throughout the exercise.

Similar student insight on the role of education and chronic disease management, respectively, were articulated this year in class.

Education can provide health knowledge itself, the knowledge to navigate health systems easier, or the knowledge to better save money. College education changes the way community members or health care workers treat you, generally that treatment is better.

Chronic disease influences health by being a long term burden that must be cared for. Chronic disease drastically increases a person's health care costs and may create economic issues for the whole family. Along with financial problems, chronic disease can also decrease productivity by slowing a person down physically, mentally, and emotionally.

Student written assignments provide insight to faculty and fodder for additional class discussions, lectures, and readings tailored to responses.

Conclusion

In over a decade of teaching the impact of social determinants, numerous pedagogical strategies have been applied and none have stuck in my students' psyches as much as the one presented here. Years after students leave my class, this is the exercise they most often recount when we see each other in various settings. It may be that in creating personas that students randomly select and actively apply aids not only in providing practical examples of determinants at work, but also thoughtful reflection that informs professional practice. That is at least, my intent and hope.

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