

Exploration of Factors that Influence Workforce Development Needs for a Local Public

Health Department

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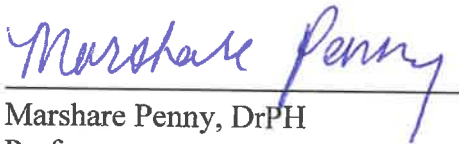
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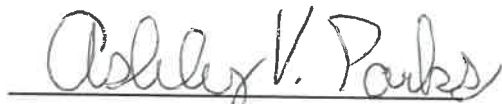
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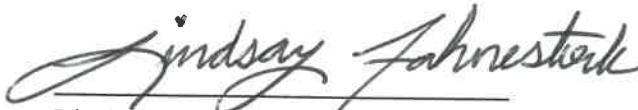
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Abstract

Health disparities cause a significantly impact public health employees. Some public health employees have a better understanding of why health disparities exist and are interested in reducing them. It is important that public health staff work together in order to understand why disparities occur. The Improved Health for All discussion series helped determine if public health employees had an interest in addressing health disparities. The discussion series took place at a local public health training session during the sixth and final module. The IHA intervention was designed to educate the staff on the relationship between inequities and health disparities. Participants were asked to participate by taking a survey, which measured their behavioral intentions on health disparities and length of employment and the completion of formal public health training. The study used a retrospective pretest design to collect pretest and posttest data from staff at a local health department. In this study, a partial correlation was calculated to determine if length of employment influenced public health employees' behavioral intentions. This was conducted after controlling for pretest responses, which showed that there was no significant relationship between length of employment and behavioral intention. An Independent Samples t-test was conducted to determine if there was an association between employee age and completion of formal public health training. The results showed that there was a statistically significant difference in age and formal public health training.

Key words: health disparities, length of employment, age, behavioral intentions.

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Review of Literature

Introduction

Health disparities are defined as the differences in the health statuses and outcomes among different groups of people (Healthy People 2020, 2019). Health disparities are often due to health inequities. Health inequities occur due to the differences in the social determinants of health that are unjust and are considered the factors that shape individuals' health outcomes (Shah, Yin., & Waterfield, 2019). In other words, health inequities focus are the differences in health that are unfair, systematic, and avoidable. Disparities result from a dynamic process where inequities may increase or decrease depending on the group and societal factors such as the downturns of the economy and changes in public policy (Milburn, Beatty, & Lopez, 2019). Inequities among racial and ethnic groups, socio-economic status, income inequality, discrimination, and other elements often are the causes of health disparities and the outcome of poor health. Health disparities and health inequities should be addressed, especially when training health department staff in the public health workforce (Healthy People 2020, 2019).

Research shows that about 50% of U.S adults believe that health disparities exist and that medical factors such as disabilities and disorders, are some of the common health issues that may impact disparities (Purtle et al., 2018). The environment in which an individual grows, works, lives, and learns can affect his/her health. These environments and situations are referred to as the social determinants of health, and responding to the social determinants of health can identify the different ways to create a social and physical environment that promotes good health for all

(Healthy People 2020, 2019). Improving conditions of daily life; tackling the inequitable distribution of power, money, and resources; and measuring and expanding knowledge in the workforce all impact the social determinants of health. These conditions, however, are not always achieved successfully; therefore, they lead to health inequities and ultimately, health disparities.

According to the American Psychological Association (APA), focusing only on a population as a whole will not yield findings or advances in the understanding of where gaps exist (Milburn et al., 2019). According to the National Conference of State Legislatures (2014), previous research conducted on health disparities focused on examples of strategies that aim to reduce disparities among races and avoid discrimination. Communities of color suffer from some of the worst health outcomes due to lack of health insurance, receiving poor quality of care, and rating their health statuses lower than others, which causes higher rates of premature death (National Conference of State Legislature, 2014). Due to increasing diversity in the U.S., there is more demand in the expansion of scope of work, specifically within the public health departments. People of different races and ethnicities represent more than 25% of the total population, which results in a diverse workforce (NSCL, 2014).

According to the Agency for Healthcare Research and Quality (2017), only modest improvements in disparity reduction including care coordination, effective treatment, healthy living, and care affordability have been achieved at the national level. Public health research and policy named health equity as a priority in addressing challenges associated with the social determinants of health (AHRQ, 2017). Efforts to reduce disparities must focus on changing the perceptions of an

individual's characteristics and focusing on social factors such as poverty, limited opportunities, and discrimination. It is important that individuals from disadvantaged communities cultivate their talents and interests in work since their experiences create a unique expertise that can help develop, implement, and evaluate health equity interventions (Cooper, Punell, & Showell, 2018).

Cooper, Punell, and Showell (2018) explain that there are fundamental evidence and translation gaps between public health employees. These gaps may exist due to differences in age and length of employment in the public health workforce. Other professions can give formal training and education to new employees making it easier for them to transition into the new position. However, while many of the trainers may have been with the public health workforce for a significant amount of time, the individuals working within the public health sector may not have a degree in public health, making training within in this field difficult.

Recommendations for Addressing Health Disparities and Health Inequities

Researchers such as public health practitioners, clinicians, and community organizers are key to eliminating health disparities (Matney, 2017). These groups work together to have a better understanding of the concerns that contribute to the gaps in health care and health quality for minority groups (Matney, 2017). There are many suggested ways to address and reduce health disparities and inequities. These suggestions include: ensuring that there is a strategic focus on the communities that are at a greater risk, helping in reduce disparities in access to the quality of health care, and increasing the capacity of prevention efforts in the workforce in order to identify and address disparities (U. S. Department of Human Health Services, 2015).

Health disparities may be reduced in ways such as transforming health care, strengthening the infrastructure and workforce of the nation's health and human services; advancing the health, safety, and well-being of the American people, and advancing scientific knowledge and innovation (Jackson & Gracia, 2014). Educating, training, and developing of the public health workforce is needed to meet the health and service needs of different communities (Jackson & Gracia, 2014).

Workforce Development

The elimination of disparities in health is yet to be achieved and the narrowing of health gaps does not hold true for several outcomes, including differences in mortality rates, alcohol and substance abuse, mental health disorders, or violence (Baciu, Negussie & Geller, 2017). In order to eliminate disparities, problems such as a decline in overall life expectancy, opioid misuse and addiction, and behavioral and physical health problems should be confronted by governmental public health agencies and require a competent, adaptive, diverse, and engaged workforce (Castrucci & Fraser, 2019). It is necessary that public health staff show the interest in being involved in the new roles and changes that occur within their organizations. In order to achieve health improvement among communities, there need to be strong public health agencies built on a foundation of well-trained and innovative public health practitioners (Castrucci & Fraser, 2019).

Governmental public health employees should be proficient in cultural competency and must understand the social determinants of health. Understanding social determinants of health in the workforce aids in reducing health disparities and meeting the needs of the undeserved population (Sellers, Leider, & Gould, 2019). It is

important to understand the social determinants of health because it addresses poverty, unequal access to healthcare, lack of education, stigma, and racism (Center for Disease Control and Prevention, 2014). These factors contribute to health disparities (CDC, 2014). Establishing goals among the public health workforce may help in reducing health disparities. Important goals include reducing gaps that exist in the public health workforce related to age, length of employment, and interest in reducing health disparities among communities. These goals may help in raising awareness of the need for trainings, professional development, and strong public health leadership (Sellers, et al., 2019). This could be accomplished if public health employees received proper education and training.

Age and Length of Service in Public Health

The average length of employment in public health is nearly 13 years (Public Health Foundation, 2016). About 49% of public health employees have worked for more than 10 years, and 23% of those employed anticipate continuing to work for more than 20 years (PHF, 2016). About one out of three public health employees have been employed for five years or less (PHF, 2016). According to PHF (2016), the average age of those working in public health is 47 years. More than 58% of public health employees are 45 years or older and 28% are 55 years or older (PHF, 2016). Roughly, 34% of public health employees are younger than 45 and 15% percent are under the age of 35 (PHF, 2016). Public health employees aged 18-24 years are 1.6% of the public health workforce (PHF, 2016). Based on this data, there are differences in the ages of public health employees. This indicates that a higher rate of older

employees stay within the workforce, making it difficult for younger employees to obtain formal public health training and enter the profession.

According to Sellers and colleagues (2019), approximately 22% of staff in the public health workforce plan to retire by 2023, and 24% of employees plan to leave the organization for reasons other than retirement. These losses place a serious consequence on the field of public health as there will be a loss of institutional knowledge and experienced leadership. Managers and executives account for 11% of staff and 16% of all years of experiences in the workforce (Sellers et al., 2019). At least 30% of managers and executives plan to retire within five years, which accounts for 42% of all managerial and executive years of experience (Sellers et al., 2019). If employees retire sooner, than expected, it may make it difficult to train newer employees.

Academic Public Health Training

In the public health work force, it is important for leaders to facilitate different ways of creating a comprehensive workforce development plan. Plans should emphasize culture and policies that will improve diversity and inclusion (Sellers et al., 2019). Two types of training are important. First there is the training of public health through workforce development and the other is academic preparation (Sellers et al., 2019). Education is key, as entry level professionals in public health may be more likely to have a degree or some form of academic preparation in public health. Employees whose highest educational attainment was a bachelor's degree tended to be younger: 38% of public health undergraduate degree holders were aged 35 years or younger compared with 20% of bachelor's degree holders with nonpublic health

majors (Sellers et. al., 2019). According to Sellers and colleagues (2019), although public health has long treated the Masters in Public Health as the highest degree into the field, those who graduate with a Bachelors in Public Health are underway. The estimate is still relatively low with regards to the amount of individuals in the profession.

Conclusion

In order to achieve any improvement in the nation's health, it will first come through a trained and well-prepared workforce that supports the desired outcomes (Castrucci & Fraser, 2019). Training of public health employees has changed over the years and is more about skills and competencies rather than about specific information or what the person knows (Sibbald, Speechley, & Thind, 2016). When focusing on workforce development, it is important for public health professionals to develop an understanding of the social determinants of health and the impact on the health outcomes of the communities they serve. This may be an easier task, as newer and younger public health practitioners receive formal training, which encompasses understanding the multifaceted dimensions of health and health behaviors. Exploring the possible impact of employment history, age, and formal public health training on the intentions to address health disparities, with a focus on health inequities, would be important given the impending retirements of public health employees and increase in public health graduates.

Purpose of Study

This study examined the impacts of the Improving Health for All (IHA) discussion series on public health employees. More specifically, this research

explored whether or not employees have reported an interest in addressing health disparities and explored the factors that influenced their interests.

Research Questions

There are two research questions that will be explored in this study:

1. After controlling for pretest responses, does length of employment influence the behavioral intentions in reducing health disparities?
2. Is there an association between employee age and their completion of formal public health training?

Hypotheses

First, it is hypothesized that length of employment influences employee behavioral intentions to address health disparities. Second, it is hypothesized that those with formal public health training are more likely to be younger than those without formal training.

Method

Design

The study utilized a retrospective pretest design to collect pretest and posttest data from staff at a local health department. The retrospective pretest design allows the collection of pre- and posttest data at one point in time. The data was collected from staff after they participated in the Improving Health for All intervention that was designed to educate the staff on the relationship between inequities and health disparities. Using G*Power software, a medium effect size, and a power of 80%, the minimum required sample size was estimated to be 128. The participant sample size exceeds the minimum required sample size.

Procedures

The participant data was collected between January 2016 and May 2019. The survey questions reflected respondents' participation in 24 hours of workforce development training that was broken into six 4-hour training sessions. Participants were given the survey during the last 15 minutes of the sixth and final training session. Demographic data collected were, specifically age, sex, race and ethnicity, years in public health, and formal education and training and questions regarding health disparities.

Participants

The study participants were staff at a local health department in Southern California who enrolled and participated in a 24-hour workforce training program. Throughout the study period, 262 staff completed all 24-hours of the workforce training program, which allowed for their voluntary inclusion into the study.

Although the training is mandatory, participation in the study was voluntary. During the last 15 minutes of the last training session, the surveys were distributed to all participants with consent forms, and survey completion instructions were read aloud to all participants. Participants were informed that the survey was voluntary and would not affect the record of their completion of the required training nor would it impact their employment in any way. Of the 262 program participants, 192 chose to complete the survey, resulting in a response rate of 73%.

Independent Variables

The two independent variables in this study include years of employment and completion of formal public health training. Years of employment was measured by response to the question, “*How long (in years) have you worked in the field of public health?*”. The respondent was asked to enumerate the number of years.

The second independent variable, formal education and training, was an open-ended question that was used to ascertain the degree and certification a respondent may have. From the responses, a new variable was created to identify whether or not a participant had received formal/academic public health training.

Dependent Variables

There were two dependent variables in this study: age and behavioral intentions that address health disparities. The first dependent variable, age, was measured through participants’ self-report at the time of the survey. The second dependent variable, behavioral intention, was measured using questions developed based upon Azjen’s Theory of Planned Behavior (TPB) questionnaire instructions (Fishbein & Azjen, 2010). There were three behavioral intention questions scored

using a 7-point bipolar scale. The three scores were averaged to provide a composite score.

Data Analysis

To answer the first research question, *“Does the length of employment influence the behavioral intentions to reduce health disparities?”*, a partial correlation was performed. To answer the second research question, *“Is there an association between employee age and their completion of formal public health training?”*, an independent samples t-test was performed to examine posttest differences in behavioral intentions between those with and without formal public health training, controlling for pretest scores.

Results

Major Findings

The purpose of this research study was to explore if public health employees are familiar with and show interest in addressing health disparities and the factors that influence their interest. Table 1 shows the demographics characteristics of the study participants, as well as the characteristic of the overall public health department. During the study period, there were a total of 262 public health employees who participated in the mandatory workplace training. Of those in the training, 192 completed the survey, resulting in a response rate of 73%. Of the 192 completed surveys, 10% were males and 88% were females. The Department of Public Health had a total of 623 employees. Of the 623 employees, 18% were males and 82% were females. The gender proportions among the study participants and the Department of Public Health were similar and illustrate a gender disparity in the local health department workforce.

The study participants belonged to a variety of racial and ethnic groups. The study population had a higher proportion of Hispanics (46%) and Whites (58%). While the lower proportions in the study group were Black/African Americans (8%) and Not Specified/Other (4.3%). These proportions align with the overall health department demographics. The average age for those in the study was 45 years of age while the average age of those employed with the Department of Public Health was 46 years of age.

For the first research question, *“After controlling for pretest responses, does length of employment influence the behavioral intentions in reducing health*

disparities?”, a partial correlation was performed. The results of the test indicate that there is no significant relationship between length of employment and behavioral intention ($r(180) = -0.15, p = .84$).

For the second research question, *“Is there an association between employee age and their completion of formal public health training?”*, an independent samples t-test was conducted. There was a statistically significant difference in age ($t(179) = -2.76, p = .006$) between those that answered “yes” to having formal public health training ($M = 40.3, SD = 10.5$) and those that answered “no” to having formal public health training ($M = 45.9, SD = 10.5$). Those that reported not having formal public health training were older ($M = 45.9$) than those who reported having formal public health training that have formal public health training ($M = 40.3$).

Discussion

Summary of Major Findings

The purpose of this study was to determine if public health employees have an interest in addressing health disparities and factors that influence their interests after receiving a 24- hour training. In addition, the study examined if employment history, age and formal public health training helped address health disparities.

Length of Employment and Behavioral Intentions

The results of the data collected from the Improving Health for All (IHA) discussion series found that there was no significant relationship between length of employment and behavioral intention to address health disparities. These findings may be explained by the fact that strategies in the discussion series may have helped public health staff understand why health disparities exist; however, there are no longer new conversations. The IHA discussion series was led by Riverside County in 2009, resulting in 11 years of important discussion and program development among public health employees.

Previous research has described public health as an interdisciplinary field that requires public health professionals to receive trainings to produce a competent workforce in order to avoid gaps in knowledge and skills (Sibbald, et al., 2016). The roles of public health staff will expand and will require the workforce to continue to acquire new skills to meet communities' needs (Dunn, 2018). In public health, there are more comprehensive workforce development plans that are aligned with staff training needs. These plans should emphasize ways of improving disparities whether

it be an experienced employee or if a new employee is seeking training (Seller et al., et. al., 2019).

Age and Formal Public Health Training

There was a significant difference in age between those that have formal public health training ($M = 40.3$) and those who did not have formal public health training ($M = 45.9$). On average, those with formal public health training were younger compared to those without formal public health training. Those with formal public health training may have skills that helped enhance their understanding of health disparities. These findings are consistent with Sellers and colleagues (2019) findings, as 14% of the workforce has a public health degree at any level, and new hires are more likely to have public health training. Additionally, 38% of public health undergraduate degree holders were aged 35 years or younger as compared to 20% of bachelor's degree holders with nonpublic health majors (Sellers, et. al, 2019).

Many of the public health employees have been with the workforce for an extended period of time. As new employees are hired into the workforce they may have some sort of degree in public health, which allows them to have an understanding of why health disparities exist and how they may be avoided. This is important because employees that have been the workforce for a significant amount of time may not be public health degree holders and plan to retire (Seller et. al., 2019). New hires are more likely to have formal public health training, which is important in the public health workforce and will fill in the gaps in the workforce as current employees retire (Seller et. al., 2019).

Implications for Public Health

Public health trainings and the understanding of health disparities are important in the workforce. As illustrated in Table 1, in 2009, 42% of Riverside County public health employees had formal public health training as compared to 44% who did not have formal public health training. In addition, 14% did not specify if they had public health training. There is a need to increase formal public health training in public health departments. Continued surveillance and analysis of training needs, understanding key concepts, and other changes will be important to ensure that public health departments have the capabilities to protect and improve the nation's health (Sellers et. al., 2019).

In order to increase the numbers of public health employees with formal training, many employees may have to go back to school and earn a public health degree. According to Resnick and colleagues (2018), growth in the number of undergraduate public health programs, along with the expansion of the public health minors and general education courses, offers opportunities to broaden public health education and increase diversity in the public health workforce. Even though many may go back to obtain the degree, some may not. This may be due to the cost of education or the lack of interest in staying employed in public health long- term.

A graduate course at a public four-year college may cost up to \$700 per credit, whereas at a private college this may be up to \$3,300 (Hannon, 2018). A master's degree can cost between \$20,000 and \$100,000 (Hannon, 2018). Many employees who do not have their bachelor's degree began working after completing high school and found that income outweighs study time (Racen, 2017). Even though the cost of

education is extremely high, there are resources such as grants, scholarships, and reduced tuition that can be offered to those who plan on obtaining a degree (Hannon, 2018), which could be discussed with public health employees who do not currently hold degrees to persuade them to continue their education.

The findings in this study may assist public health employees in gathering information on how to improve training methods and reduce health disparities. Further studies may help in understanding that there are concepts that have a positive or negative effect on public health employees. Future studies may also guide public health employees in implementing other interventions that may strengthen public health trainings and help in reducing health disparities.

Additionally, it is important for supervisors to play a role in ensuring that employees are trained in order to develop strategic skills, including understanding and influencing policy, systems thinking, and communicating (Sellers, et. al., 2019). Future studies may help researchers in supporting state and local health departments in evaluating the effectiveness of workforce training needs (Sellers et. al., 2019). In order to address health disparities, it is important that public health employees understand why they exist. This can be accomplished if employees are surrounded by formally trained employees helping them understand and address health disparities. The findings in this study may help facilitate discussions in regards to health disparities. This may occur only if employees have the opportunity to openly discuss their thoughts on disparities.

Limitations

This study consisted of several limitations. The study uses a retrospective pretest design to collect pretest and posttest data from staff at a local public health department (Bloem, Schwartz, Zuuren, et. al, 2015). The design allowed the pretest data to be gathered after the intervention was in progress. This was conducted by asking participants to reflect on their perceptions before the intervention, while at the same time asking the participants for their perceptions after the intervention. This retrospective pretest design would be described as cross-sectional as there was no true pretest collected before the intervention (Lamb, 2005).

Participation in the discussion series was mandatory, but those who participated in the study were in the sixth and final training session. These individuals were in the training for the majority of their day and were ready to leave just as the training session ended. Those who did participate in the study may have completed the questionnaire rapidly, and may have not fully understood or comprehended to the questions being asked. This may have resulted in some form of selection bias, which may negatively affect the generalizability of the findings.

Another reason for limitations may be the understanding and teaching of how important health disparities are, all while the participants are asked to share the same values they may have. They may be sharing answers that they feel are expected. This is may be a form of self- reporting bias, which may as also negatively affect the findings.

Another limitation may be the misunderstanding when employees were asked if they have formal public health training. This may be a form of response bias. This

is because many of the employees may assume they have formal public health training because they work in the public health field. According to the CDC (2009), only one in five public health employees have formal public health training. Understanding what formal public health training is may have been misinterpreted by many public health employees.

Conclusion

It was determined that there was no significant relationship between length of employment and its influence on behavioral intention. The longer an employee is with a company, the more likely they are to have the same routine. This may make it difficult to adapt to changes in the workforce, such as understanding the importance of addressing health disparities. This was why the IHA intervention was important; it supported employees' understanding of their role in addressing health disparities.

There was a statistically significant difference in age and formal public health training. Those who have a public health degree have a variety of skills that help them understand health disparities, compared to those who do not have any type of training or public health degree and have been in the workforce for years. Age also plays a part as there are younger employees who are hired in to the workforce and are taught about health disparities that exist in the workforce. Even though the IHA discussion series had a positive outcome, it is important for every employee to understand the aims that will help in addressing health disparities. This can be accomplished through formal public health training; educating, training, and competency are critical in developing and sustaining a workforce that can anticipate, recognize, and respond effectively to new and existing environmental public health threats (CDC,2009).

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Appendix A: Table

Table 1

Demographic Characteristics of study participants and public health department staff

	Study Participants (n=192)		Public Health Department (n=623)	
Variable	n	%	n	%
Gender				
Male	19	9.9	112	18.0
Female	169	88.0	511	82.0
Not Specified	4	2.1	N/A	N/A
Race/Ethnicity				
American Indian/Alaska Native	0	0	1	0.2
Asian	20	10.7	52	8.3
Black/African American	15	8.0	73	11.7
Hispanic/Latino	86	46.0	282	45.2
Native Hawaiian/ Pacific Islander	0	0	1	0.2
Not Specified/Other	8	4.3	65	10.5
Two or more not Hispanic	0	0	5	0.8
White	58	31.0	144	23.1
Age		44.9* (10.7)		46.4* (10.7)
Years in PH		13.6* (10.2)		N/A
Years in Public Service		N/A		N/A
PH Training (D8)				
Yes	81	42.2		N/A
No	84	43.8		N/A
Not Specified	27	14.1		N/A
*Mean value reported N/A: Not Available				

Appendix B: IRB Approval

IRB Amendment 15-EF-051 Approval

Dear Dr. Penny,

Thank you for submitting this amendment to add Kirndee Cheema to IRB 15-EF-051; it has been **approved**.

Please remember: In the case of an unforeseen risk/adverse experience, please report this to the IRB immediately using the appropriate forms. Requests for a change to protocol must be submitted for IRB review and approved prior to implementation. At the completion of the project, you are to submit a Research Closure Form. As the researcher, you are responsible for ensuring that the research is conducted in the manner outlined in the IRB application and that all reporting requirements are met. Please refer to your original approval and to the IRB handbook for more information.

Date: April 26, 2019

On behalf of the IRB,



Erin I. Smith, Ph.D.

Chair, Institutional Review Board

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Appendix C: Questionnaire

PUBLIC HEALTH: IMPROVING HEALTH FOR ALL PROGRAM SURVEY

Thank you for participating in the Public Health: Improving Health for All discussion series. We ask that you take approximately 15 minutes to complete this survey. Your responses will be anonymous. Please circle or fill in your responses below. Thank you for your time!

1. What is your sex or gender?
 - a. Male
 - b. Female
 - c. Other
2. What is your race/ethnicity?
 - a. American Indian
 - b. Asian/Pacific Islander
 - c. Black
 - d. Hispanic
 - e. White
 - f. Other _____
3. What is your age? _____
4. What is your job position title? _____
5. How long have you worked in public health for the County of Riverside? _____
6. How long (in years) have you worked in the field of public health? _____
7. Are you a manager or supervisor?
 - a. Yes
 - b. No
8. Do you have formal training (education, degree, or credential) in public health?
 - a. Yes
 - b. No
9. Please list any and all education or training, such as degrees or certifications, including specific emphasis, e.g. BS, CHES, CPH, MPH, PHN, and IBCLC. For undergraduate education, please include details of degree awarded, e.g. BS in Nutrition, BS in Health Science, ect.

BF

A. For the next four questions, please rate your knowledge before your participation in the program by circling the number that closely describes your feelings. A rating of 1 means you *disagree* and a rating of 7 means you *agree*.

1. Before participating in the program I could name the three core functions of public health.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

2. Before participating in the program I knew what the elements of the cultural competency continuum were.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

3. Before participating in the program I could describe the difference between a health disparity and a health inequity.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

4. Before participating in the program I could describe the relationship between social determinants and health disparities.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

B. For the next three questions, please rate your attitude before your participation in the program by circling the number that closely describes your feelings.

5. Before participating in the program I felt health equity training was:

Worthless			Neither			Valuable
1	2	3	4	5	6	7

6. Before participating in the program I felt that talking about the social determinants of health was:

Foolish			Neither			Wise
1	2	3	4	5	6	7

7. Before participating in the program I felt that health disparities were:

Unimportant			Neither			Important
1	2	3	4	5	6	7

C. For the next three questions, please rate your feelings before your participation in the program by circling the number that closely describes your feelings. A rating of 1 means *false* and a rating of 7 means *true*.

8. Before participating in the program, I felt that in my current position at work I could attend trainings like this on a regular basis:

Extremely Difficult			Neither			Extremely Easy
1	2	3	4	5	6	7

9. Before participating in the program, I felt that my ability to participate in discussions to develop solutions to health disparities was:

Extremely Difficult			Neither			Extremely Easy
1	2	3	4	5	6	7

10. Before participating in the program, I felt that for me to be able to engage the community around the issue of health disparities was:

Extremely Difficult			Neither			Extremely Easy
1	2	3	4	5	6	7

D. For the next three questions, please rate your agreement with the statements before your participation in the program by circling the number that closely describes your feelings. A rating of 1 means you *disagree* and a rating of 7 means you *agree*.

11. Before participating in the program I felt that my supervisor considered health disparities a major public health concern.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

12. Before participating in the program I felt that my co-workers considered health disparities a major public health concern.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

13. Before participating in the program I felt that most people who are important to me considered health disparities a major public health concern.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

E. For the next three questions, please rate your agreement with the statements before your participation in the program by circling the number. A rating of 1 means you *disagree* and a rating of 7 means you *agree*.

14. Before participating in the program I planned to reduce health disparities.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

15. Before participating in the program I planned to consider ways to reduce health disparities.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

16. Before participating in the program I planned to engage in activities, within my department, to find solutions to health disparities.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

AF

F. For the next four questions, please rate your knowledge after your participation in the program by circling the number that closely describes your feelings. A rating of 1 means you *disagree* and a rating of 7 means you *agree*.

17. After participating in the program I can name the three core functions of public health.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

18. After participating in the program I know what the elements of the cultural competency continuum are.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

19. After participating in the program I can describe the difference between a health disparity and a health inequity.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

20. After participating in the program I can describe the relationship between social determinants and health disparities.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

G. For the next three questions, please rate your attitude after your participation in the program by circling the number that closely describes your feelings.

21. After participating in the program I feel that health equity training is:

Worthless				Neither			Valuable
1	2	3	4	5	6	7	

22. After participating in the program I feel that talking about the social determinants of health is:

Foolish				Neither			Wise
1	2	3	4	5	6	7	

23. After participating in the program I feel that health disparities are:

Unimportant				Neither			Important
1	2	3	4	5	6	7	

H. For the next three questions, please rate your feelings after your participation in the program by circling the number that closely describes your feelings. A rating of 1 *Extremely Difficult* and a rating of 7 means *Extremely Easy*.

24. After participating in the program, for me to attend the module sessions on a regular basis is:

Extremely Difficult				Neither			Extremely Easy
1	2	3	4	5	6	7	

25. After participating in the program, for me to participate in discussions to develop solutions to health disparities is:

Extremely Difficult				Neither			Extremely Easy
1	2	3	4	5	6	7	

26. After participating in the program, for me to engage the community around the issue of health disparities is:

Extremely Difficult				Neither			Extremely Easy
1	2	3	4	5	6	7	

I. For the next three questions, please rate your agreement with the statements after your participation in the program by circling the number that closely describes your feelings. A rating of 1 means you *strongly disagree* and a rating of 7 means you *strongly agree*.

27. After participating in the program I feel that my supervisor considers health disparities a major public health concern.

Strongly Disagree				Neutral			Strongly Agree
1	2	3	4	5	6	7	

28. After participating in the program I feel that my co-workers consider health disparities a major public health concern.

Strongly Disagree 1 2 3 Neutral 4 5 6 Strongly Agree 7

29. After participating in the program, I feel that most people who are important to me consider health disparities a major public health problem.

Strongly Disagree 1 2 3 Neutral 4 5 6 Strongly Agree 7

J. For the next three questions, please rate your agreement with the statements after your participation in the program by circling the number that closely describes your feelings. A rating of 1 means you *disagree* and a rating of 7 means you *agree*.

30. After participating in the program I plan to think more about ways to reduce health disparities.

Strongly Disagree 1 2 3 Neutral 4 5 6 Strongly Agree 7

31. After participating in the program I plan to reduce health disparities.

Strongly Disagree 1 2 3 Neutral 4 5 6 Strongly Agree 7

32. After participating in the program I plan to engage in activities, within my department, to find solutions to health disparities.

Strongly Disagree 1 2 3 Neutral 4 5 6 Strongly Agree 7

K. For the next two questions, please rate the improving health for all discussion series.

33. How likely are you to recommend the improving health for all discussion series to others?

Extremely Unlikely 1 2 3 Neutral 4 5 6 Extremely Likely 7

34. How valuable do you find the improving health for all discussion series to be?

Extremely Valueless 1 2 3 Neutral 4 5 6 Extremely Valuable 7