Walden University

College of Health Sciences

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Claudette Virginia Campbell

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Abstract

Public Education/Public Health Perspectives on Collaboration-Influence on High School

Completion

by

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Sciences-Self-Designed

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Abstract

The research problem focused on the use of collaboration by managers, supervisors, consultants, and professional staff in a department of public education and health to address disparities in on-time high school completion rates. The purpose of the study was to examine the perspectives of individuals in these public sectors on the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The theoretical foundation and conceptual framework for the study were John Rawls's theory of justice and Amartya Sen's capability approach. The key research question involved how individuals in the public education and health sectors viewed the use of collaboration to address a complex problem of low rate of on-time high school completion for African American and Hispanic students. The research design was a multiple case study. Seven individuals participated from a department of public education and 4 from a department of public health in the same state. Data were collected and analyzed from participant interviews. Themes were identified from categories and specific codes or words that described the content of the participants' responses. A major conclusion was collaboration between a public education department and public health department can be used as a means to improve on-time high school completion rates for African American and Hispanic students. The implications for social change may be to increase the awareness for a public education department and public health department to routinely work in collaboration to improve on-time high school completion rates of minority and other vulnerable students.

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Dedication

This dissertation is dedicated to my sister, Joan Blakney, my twin brother, Claude Campbell, my niece, Marla Blakney-Spivey, my nephew, Keith (Kamau) Blakney, my great niece, Ndaia Blakney, my great nephews, twins Joshua and Joel Spivey, and many other family and friends for their love and support during my dissertation journey. A special dedication goes to my late parents, Frank Campbell and Nannie Campbell, who taught me the importance of having an education; and to my late four-legged friend, Mocha, a cute cockapoo who was a calming presence during the writing of the proposal for my dissertation. Mocha gained her wings in October 2015.

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Chapter 1: Introduction to the Study

The study topic was on the use of collaboration and how managers, supervisors, consultants, and professional staff, in a department of public education and health, viewed collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. There are disparities in terms of on-time high school completion rates for African American and Hispanic students when compared to Caucasian students in the United States. Social determinants of health (SDOH) were introduced in the Healthy People 2020 initiative to show the correlation between health and the conditions under which people live. SDOH are used to track and monitor the health status of the population of the United States and are defined as conditions that impact health outcomes of individuals and communities. SDOH include education, physical, and social environments (HealthyPeople 2020, 2017). Education is one of five SDOH in Healthy People 2020 and includes the following indicators: high school graduation, enrollment in higher education, language and literacy, and early childhood education and development (HealthyPeople 2020, 2017). Adolescent health is one of the topic areas in Healthy People 2020 and includes the Adolescent Health-5.1(AH-5.1) objective and target, which is on-time high school completion. On-time high school completion is defined as the completion of high school with a regular diploma, within 4 years after entering the ninth grade (HealthyPeople 2020, 2017).

Educational attainment is related to health outcomes, particularly, increased life expectancy and reduction in chronic illness. Goldman and Smith (2011) assessed how the

relationship between health and education has changed over the last three decades to determine the increasing value of health to education. Trends in disease prevalence and self-reported health for five chronic diseases (arthritis, diabetes, heart disease, hypertension, and lung disease) were analyzed from the National Health Interview Survey (NHIS) for the time period 1976-2005. NHIS data was supplemented by a review of the National Health and Nutrition Examination Survey (NHANES) for the following years:1976-1980, 1988-1994, and 1999-2002. The population sampled was limited to non-Hispanic Caucasians ages 40-64. One of the major findings of the study was health benefits related to additional schooling increased over time in excess of 10 percentage points as measured by self-reported health status. Goldman and Smith (2011) attributed this increase to the protection against the onset of disease and to health promotion activities. Individuals with more education tend to adopt better health behaviors, for example, smoking cessation and exercise. This leads to reductions in chronic illnesses. Also, individuals with more education take advantage of the improvements in medical technology used to detect diseases and illnesses during the early stage of a disease.

In addition, Smith, Anderson, Salinas, Horvatek, and Baker (2015) completed a random effects meta-analysis to address the conflicting research findings on the relationship of education to health. Smith et al. (2015) completed a review of 414 published articles on the effects of education and found that more education significantly reduced the likelihood of chronic disease except for neoplastic diseases caused by genetic factors. Also, poor health in childhood can impact on-time high school completion. Hass and Fosse (2008) examined the mechanisms that

linked health to the educational attainment of adolescents and found that adolescents who experience poor health are significantly less likely to complete important educational transitions such as timely completion of high school and post-secondary enrollment. These transitions are important for job and income security over a lifetime. Hass and Fosse (2008) analyzed data from rounds one through seven (1997-2003) of the National Longitudinal Survey of Youth 1997 cohort (NLSY97). In addition, according to Allensworth (2014), adolescent health is associated with educational attainment. If adolescents experience issues of substance abuse, poor nutrition, and chronic conditions, it was difficult to complete high school or to complete high school in a timely manner.

AH-5.1serves as a catalyst for individuals in the public education and public health sectors to work jointly to improve on-time high school completion rates, particularly, for African American, Hispanic, and other vulnerable students such as low income and disabled students. Allensworth, Lewellan, Stevenson, and Katz (2011) said that improving graduation rates was one of the most cost- effective ways to reduce health disparities. Also, because education and health are interdependent systems there was a need to collaborate with education to address the educational and health needs of children.

It is important to understand how managers, supervisors, consultants, and professional staff, in a department of public education and health, viewed the use of collaboration to improve on-time high school completion for minority students. A social change implication for this study was that individuals in a public education and health sector gained insight about the use of

collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The views of the participants in this study helps to increase the awareness and importance of collaboration as a means to improve on-time high school completion for African American and Hispanic students. The major sections of Chapter 1 are as follows: an overview of the research study topic, background of the research problem, problem statement, research study purpose, research questions, theoretical foundation, conceptual framework, nature of the study, definitions, assumptions, scope and delimitations of the study, limitations, significance, and a summary of Chapter 1.

Background of the Study

The developers of Healthy People 2000 (1990-2000) recognized the importance of high school completion as a public health goal. Also, Healthy People 2010 (2000-2010) focused on educational attainment and the impact on health (Allensworth, 2014). After almost 22 years, the Healthy People 2020 initiative included SDOH as indicators to monitor and track the health status of the United States population (Allensworth, 2014; Koh, Piotrowski, Kumanyika, & Fielding, 2011).The Secretary of the Department of Health and Human Services (DHHS) Advisory Committee on National Health Promotion and Disease Prevention outlined the objectives for Healthy People 2020, which included a focus on SDOH (Healthy People 2020, 2010). In addition, the Healthy People 2020 on-time high school completion objective and target is one of the leading health indicators (LHI) used to track and monitor the health status of the adolescent population of the United States (Healthy People 2020, 2014). The objective and target

for AH-5.1 is 87% of students will graduate from high school within 4 years after entering the ninth grade. The Healthy People 2020 objective is an aspirational objective and target, i.e., something that the developers of Healthy People 2020 hope will be achieved (Healthy People 2020, 2017). Initially, the baseline for AH-5.1 was 74.7%. In May 2015, a new measure was established for the on-time high school completion baseline, the public high school 4-year adjusted cohort graduation rate (ACGR). The previous measure was the average freshman graduation rate (AFGR). As a result, the baseline changed from 74.7% to 79% and the baseline year was changed from 2007-2008 to 2010-2011. In addition, the target for AH-5.1 was changed from 82.4% to 87% (National Center for Educational Statistics, 2015).

There are disparities in terms of on-time high school completion rates based on race and ethnicity. The overall United States average adjusted cohort high school graduation rate (ACGR) for the 2013-14 school year was 82.3%. The Asian /Pacific Islander rate was 89.4%, the Caucasian rate was 87.2%, the Hispanic rate was 76.3%, the African American rate was 72.5%, and the American Indian/Alaska Native rate was 69.6% (NCES, 2015). Table 1, Chapter 2 contains the disparities in on-time high school completion rates across the United States.

Individuals in a public education and health department can work in collaboration to address the problem of disparities in on-time high school completion. Miller-Stevens, Henley, and Diaz-Kope (2016) recognized the importance of collaboration as a major approach to address complex problems. Miller-Stevens et al. (2016) argued at the federal level, it was difficult to resolve major issues independently because of the lack of or competing resources in

an agency. Also, there was an increase in the overlapping responsibilities at the federal, state, and local levels. Miller-Stevens et al. (2016) described collaboration in terms of a new federalism, a shift from dual federalism to cooperative federalism, to collaborative federalism. The model for collaborative federalism includes three levels of governance at the interagency, cross-sector, and grassroots levels. The structure and processes for these levels is described under definitions in Chapter 1. Collaboration provides a means for public sector agencies to work jointly to meet their goals and objectives. An example of collaborative federalism was the development of the Community Based Child Abuse Program. Individuals at the national, state, and local levels worked with nongovernmental agencies to address the national child abuse problem in the United States (Miller-Stevens, Henley, & Diaz-Kope, 2016).

Collaboration between education and health was described as a resurgence of efforts to engage health and education partnerships to improve educational and health outcomes for children. Kolbe, Allensworth, Potts-Datema and White (2015) described the history of partnerships involving the federal, state, local, and nongovernmental agencies to improve educational and health outcomes for children. The history covered the period from the 1970s through the early 2000s. For example, during the 1970s the Centers for Disease Control and Prevention (CDC) assisted schools to implement various types of school health programs. Schools were identified as an appropriate setting to implement the HIV/AIDS health education program to prevent the spread of HIV/AIDS among adolescent students (Kolbe, Allensworth, Potts-Datema, & White, 2015). The Whole Child and coordinated school health (CSH) approach

was the precursor for the Whole School, Whole Community, Whole Child (WSCC) framework which is an improved structure and process for collaboration among the public education and health sectors (Kolbe et al., 2015). CDC (2018) described the WSCC approach as a model to help improve learning and health through an emphasis on the psychosocial and physical environments as well as the role that community agencies and families play in improving childhood health and behavioral development. WSCC is a framework for addressing health in schools, and it is student-centered. WSCC emphasizes the role of the community in supporting the school and the relationship between health and academic achievement and the importance of evidence-based school policies and procedures (CDC, 2018).

Also, Kolbe, et al. (2015) discussed a specific program that was a precursor to the WSCC model, the Wisconsin's Department of Public Instruction and Wisconsin's State Education Agency (SEA). The SEA led and coordinated the state department of health and nongovernmental agencies efforts to improve the health of children. Through anecdotal reports, school administrators felt that collaborative activities resulted in improvements in physical activity and cardiovascular fitness. The school administrators believed that these improvements led to improved learning and health of students. One of the lessons learned from this partnership between education and health was a collaborative state partnership can improve the education and health outcomes of children in an effective and efficient manner.

Lewallen, Hunt, Potts-Datema, Zaza, and Giles (2015) discussed the evolution of the WSCC approach. During the Spring of 2013, the former Association for Supervision and

Curriculum Development (ASCD) and CDC met to discuss lessons learned from the partnerships that were established over the last two decades. As a result of the discussions, the WSCC approach was developed. WSCC is a framework for shared decision making and action by both the education and health sectors. An outcome of the meeting was a redefinition of the WSCC approaches to collaboration called the Learning Compact Redefined: A Call to Action. The call to action was for decision makers, from public education and CDC, to work together in a unified manner in order to ensure the implementation of policies that would ensure the following : (a) children would be successful learners, (b) knowledgeable, (c) emotionally and physically healthy, (d) active in civics, (e) engaged in the arts, (f) prepared for economic security, (g), and prepared for adulthood. Lewallen et al. (2015) said the new WSCC approach is designed to provide a basis for shared decision making between education and health and the need to encompass the role that SDOH such as education plays in the health of individuals and populations. The WSCC approach is an example of collaboration between education and health, which also includes public health.

Hahn et al. (2015) argued high school completion (HSC) was an established predictor of long-term health. Hahn et al. conducted a systematic review of the literature to assess the effectiveness of diverse HSC programs that increase the rates of HSC or GED, which is referred to as general education development or general education diploma. Hahn et al. found there was a wide array of HSC programs for the general population for students at risk for completing high school. Hahn et al. found that collaboration between individuals in governmental and

nongovernmental agencies was recognized as a major approach to address a problem such as high school completion.

In addition, Knopf et al. (2015) discussed their findings based on a meta-analysis review of the effectiveness of school-based health centers (SBHCs), which are part of CDC's Healthy Schools program. The study populations were from racial, ethnic, and low- income populations which included African American and Hispanic communities. Knopf et al. found that SBHCs were effective in improving a range of health-related outcomes such as better nutrition and physical activity. According to Knopf et al., SBHCs are reported to improve student objectives and to increase adolescents' responsibility for an awareness of their health.

In a phenomenological study, Moran and Bodenhorn (2015) described the perceptions and experiences of elementary school counselors and their collaborative efforts with community mental health providers (CMHPs), to meet the mental health needs of children that were not addressed by the school system. The problem was the increasing number of children whose school performance was negatively impacted because of emotional, behavioral, and developmental problems. There was limited information on collaboration among elementary school counselors and CMHPs. Collaboration was defined as the interaction between two coequal parties voluntarily engaged in shared decision making toward a common goal (Moran & Bodenhorn, 2015). The criteria for selection as a study participant was to have current experience in collaborating with CMHPs. The participants were 10 elementary school counselors. The results of the study were as follows: (a) elementary school counselors were committed to

collaboration to meet the needs of students,(b) students were likely to have more success in school because of the collaboration, and (c) there were barriers to collaboration because of the lack of time and issues in terms of communication. Limitations of the study reported by Moran and Bodenhorn (2015) were CMHPs did not participate in the study, the study was in one school and geographic location, nine of the ten participants were male, and the study included only those school counselors who were currently collaborating or had collaborated in the past. The study did not represent the experiences of school counselors who may not have chosen to collaborate in situations where it may have been appropriate.

Moran and Bodenhorn (2015) shared the lessons learned from the participants' experiences with collaboration and a recommendation to conduct a quantitative study that includes the participation of CMHPs. Although previous articles and studies illuminated important findings about the relationship between education and health, there is limited to any information on the views of collaboration from individuals in a public education department and health department. Specifically, how individuals in a department of public education and health viewed collaboration as a means to improve on-time high school completion rates for African American and Hispanic students? Individuals in the public education and health sectors traditionally work separately to meet similar goals for their students.

Problem Statement

The research problem was how individuals in a public education and health department viewed collaboration as a means to improve on-time high school completion rates for African

American and Hispanic students? Collaboration in this context refers to individuals from two public sectors working together instead of independently to address a complex problem such as disparities in on-time high school completion rates. Collaboration is either voluntary or mandatory. Miller-Stevens et al. (2016) defined collaboration in terms of collaborative federalism which includes three governance structures at the interagency, cross-sector, and grassroots levels. On-time high school completion is critical in order to have a fair opportunity to become a productive citizen in terms of improving income and health over a life span (Hass & Fosse, 2008). High school completion can lead to higher educational attainment (four years of college and above), which is associated with better health and higher life expectancy (Hass & Fosse, 2008). Galea, Tracy, Hoggatt, DiMaggio, and Karpati (2011) estimated the number of deaths associated with social factors in the United States and found approximately 245,000 deaths in the United States in 2000 were attributed to low education, or less than a high school education. The authors completed a Medline search of all English-language articles published from 1980-2007 with estimates of the association between social factors and all-cause mortality of adults. The authors calculated summary relative risk estimates of mortality and obtained and used prevalence estimates for each social factor to calculate the population-attributable fraction for each factor (Galea, Tracy, Hoggatt, DiMaggio, & Karpati, 2011).

Varda, Shoup, and Miller (2012) completed a systematic review of collaboration and network research in the public affairs literature for the period 2000-2009 to explore how the results from public affairs research can provide knowledge regarding public research and

practice based on the growth of collaboration and partnerships to address complex issues that impact health outcomes. Varda et al. (2012) recognized that a systems approach is required to address health problems and that factors outside of health contribute to health outcomes of the population. One of findings of the review was literature on public health affairs contributed a rich history in research on collaboration that provides special organizational theory and management tools for public health practice (Varda, Shoup, & Miller, 2012). Collaboration was identified as a means to improve public health practice in addressing complex social problems (Varda et al., 2012).

The WSCC approach or model is the foundation for CDC's Healthy Schools program, which is an alignment between the education, public health, and school health sectors to improve each child's learning ability, physical, social, and emotional development. Education and public health serve the same children. WSCC approach was implemented to foster collaboration between the education and public health sectors. Through partnerships with key leaders in public education and health, programs such as nutrition and physical activity are promoted in schools. CDC provides funds to state education agencies that work with public health. Also, technical assistance and specialized tools are provided to states (CDC Healthy Schools, 2018). Also, Kolbe, et al. (2015) discussed a program that was based on the WSCC model, the Wisconsin's Department of Public Instruction and Wisconsin's State Education Agency (SEA). The SEA led and coordinated the state department of health and nongovernmental agencies efforts to improve the health of children. Through anecdotal reports, school administrators felt that collaborative

activities resulted in improvements in physical activity and cardiovascular fitness. The school administrators believed that these improvements led to improved learning and health of students.

O'Brien (2011) examined inter-professional collaboration between individuals in the health and education sectors and the influence these two sectors had on schools-based projects in an urban community in the United Kingdom. The professionals in the study included one assistant executive director of a local children's service, a neighborhood learning network director, one senior children's nurse, and two-family health visitors. A focus group was held with four classroom teachers. Data was collected from taped recordings of participants' responses to six -interview questions. As a result of the analysis of the responses from the participants, O'Brien found there were challenges in terms of how the two sectors interpreted their roles and responsibilities, issues surrounding the structure of the program, the content, purposes, and outcome of the programs. O'Brien concluded that even with the challenges, the interprofessional working relationship between health and education should be supported by the community.

It is important to determine the perspectives of individuals in the public education and heath sectors regarding collaboration as a means to improve on-time high school completion rates of African American and Hispanic students when compared to Caucasian students. The views of public education and health professionals can be used to assess their support for collaboration, their knowledge about collaboration, and the barriers that impact effective and efficient collaboration. The problem of disparities in on-time high school completion rates between African Americans and Hispanic students when compared to Caucasian students has

persisted for almost two decades. Although there are articles and studies on the importance of on-time high school completion and collaborative efforts between individuals in the public education and health sectors, there is limited to no information about the views of individuals in a public education and health department regarding collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. There is a need to fill the gap in the literature about the perspectives of individuals in the public education and health sectors regarding collaboration as a means to improve on-time high school completion rates for African American and Hispanic students.

Purpose of the Study

Collaboration between managers, supervisors, consultants, and professional staff in a public education department and health department may assist in improving on-time high school completion rates for minority students. The purpose of this study was to use the multiple case study approach to determine the thoughts and ideas of individuals in a public education department and health department regarding how they viewed collaboration as a means to improve on-time high school completion rates for African American and Hispanic students? The concept or phenomenon of interest is the use of collaboration to address disparities in on-time high school completion rates.

The research questions were as follows:

RQ1: How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school graduation completion rates for African American and Hispanic students?

RQ2: What is the understanding and knowledge individuals in the public education and public health sectors have about interagency collaboration?

RQ3: What are the barriers to collaboration between individuals in the public education and public health sectors to improve on-time high school completion rates for African American and Hispanic students?

RQ4: How do individuals in the public education and public health sectors view an ethical basis found in John Rawls's theory of justice and Amartya Sen's capability approach as reasons to use collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Theoretical Framework for the Study

The theoretical foundation for this study was Rawls's theory of justice (Rawls, 1971, pp.11-19). From a societal perspective, Rawls hypothesized that leaders in a society will make rational decisions to improve the status of citizens who are disadvantaged. These decisions are based on providing disadvantaged citizens fair and equal opportunities and access to certain primary goods such as education. The decisions made by the leaders in a society will be made under the concept of a veil of ignorance (Kelly, 2001, pp. 5-18 & 20-29; Rawls, 1971, pp. 136-142). Race, ethnicity, gender, and status in life will not enter into the decision (Rawls, 1971).

The decision makers will make decisions not knowing how they will fair in society (Rawls). Rawls's theory of justice encompasses the concepts of equal basic rights, equality of opportunity, and improving the conditions of the least advantaged in society. I selected Rawls's theory of justice because of its emphasis on the fair distribution of primary goods to the citizens of a society, and because of Ekmekci and Arda (2015) and Daniels (2001) interpretations that Rawls's theory of justice applied to SDOH. Also, I believe that Rawls's concept of fair equality of opportunity (FEO) for education regardless of income is applicable to SDOH, including on-time high school completion (Kelly, 2001, pp. 46-79; Rawls, 1971, pp.83-100). Rawls's theory of justice is further discussed in Chapter 2.

Conceptual Framework for the Study

Amartya Sen's capability approach provides a basis for ensuring that individuals have the capabilities to improve their health and education in order to have a healthier life over a life span. The capability approach (CA) provides a framework so that institutions that traditionally work separately can work together to address inequalities in health and education. CA framework provides a basis for decision making to use collaboration by individuals in a public education department and health department to improve on-time high school completion rates for African American and Hispanic students. The core ideas of the CA as suggested by Robeyns (2011) are a result of interpretations of Sen's CA framework over a time span, which included 1970s, 1980s, 1990s and through 2009. The details of the core ideas are provided in Chapter 2.

I selected the CA as the framework for this study because of its flexibility. The CA can be adapted by decision makers when developing policies, procedures, and assessing programs that are aimed at ensuring all students, including African American, Hispanics and other vulnerable students, achieve the goals and objectives in Healthy People 2020 for on-time high school completion. Participants from a public education department and a public health department provided perspectives on the importance of collaboration and the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The responses to the interview questions provided an assessment of where a department of public education and health were in terms of a capability such as collaboration and the barriers that need to be addressed to enhance this capability for individuals in a department of public education and health to use collaboration as a means to improve on-time high school completion for African American and Hispanic students. Sen's conceptual framework and Rawls's theory of justice are further discussed in Chapters 2 and 5.

Nature of the Study

The nature of the study was a qualitative inquiry. The multiple case study approach was selected because it provided an opportunity to obtain firsthand information from individuals in a public education department and public health department regarding their views on the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Creswell (2013, p. 97-102) described a case study as follows: (a) researcher explores a real life situation; (b) includes a bounded system, a case or multiple cases,

that are bounded by time and place; (c) in-depth collection of data from multiple sources; (d) analyses of in- depth descriptions within each case and a cross-case analysis between each case; (e) identification of themes based on the analyses; and (f) results or conclusions are not generalizable but expressed in terms of lessons learned from the themes generated from the analyses. Also, this multiple case study is called an instrumental case study because the focus was on cases to understand a specific issue, problem, or concern (Creswell, 2013).

The multiple case study was the best approach because I aimed to determine how two different groups of people (cases) viewed collaboration, or their working relationship. Other qualitative inquiries (narrative research, phenomenological study, grounded theory, or ethnographic approach) focus on the lived experiences of the participants in a study. My understanding of the lived experiences of the phenomenon of interest was not a requirement for this study. I used a standardized interview protocol and an open-ended questionnaire to obtain in-depth responses from the participants (Appendix E). Individuals from a department of public education and a department of public health were selected for the study who had an impact on decision making in terms of improving on-time high school completion rates for high school students or had an interest in improving on-time high school completion rates. I used a purposeful sample approach and selected individuals who were employees of a public education department and a public health department from the same state. The study was conducted in one state. The study design was based on time factors such as a working adult completing my dissertation, and the need as a dissertation student to limit the costs of the study. Participants

included management, supervisory, consultant, and professional staff from a public education

department and a public health department. In addition, a brief pilot study was conducted to

obtain input on the relevancy of the questions and whether or not the participants understood the

questions. Also, I gained experience in conducting the interviews and executing the procedures

for the study.

The participants' in-depth responses from the interviews provided the data for analyses. I

prepared and organized the data from transcribed interviews and each participant was provided

the opportunity to review the transcribed interviews for accuracy. Data were analyzed after the

identification of initial codes. Saldana (2016, pp. 1-42) defined codes as words or short phrases

that are summations of the participant statements. The codes were categorized based on patterns

and themes were generated from the categories. Themes are phrases or sentences that described

the category (Saldana, 2016, p. 199). The data analysis also consisted of a review of other

documents such as articles, newspaper articles, and web sites that mentioned collaborative efforts

to improve the education and health of students, or collaboration in terms of newer

collaborations by public health, or the need to improve high school graduation rates.

Definitions

Individuals: Individuals refers to managers, supervisors, consultants, and professional

staff from a department of public education and a department of public health department.

Collaboration: The process that brings together individuals, agencies, and organizations that traditionally work separately to work together to address complex social problems to meet their goals. Collaboration is either voluntary or mandatory (Morris & Miller-Stevens, 2016).

Collaborative Federalism: All levels of government and other sectors working jointly to solve complex problems. Collaborative Federalism includes three governance structures: interagency, cross-sector, and grassroots governance (Miller-Stevens et al., 2016).

Interagency governance: Interagency governance includes federal, state, and local entities that develop, execute, and regulate federal policies at the three levels of government (Miller-Stevens et al., 2016).

Assumptions

It was assumed that the participants in the study provided accurate and honest responses to the interview questions. It was also assumed that the participants had an interest in collaborating to improve on-time high school completion rates for all students. These assumptions were necessary in order to use the information from the participants to interpret how individuals in a public education department and a public health department viewed the use of collaboration as a means to improve on-time high school completion rates of African American and Hispanic students.

Scope and Delimitations

The focus of the research was the use of collaboration as a means to address a complex social problem such as disparities in on-time high school completion. Participants included

individuals in a public education department and a public health department, who were in a state

where the on-time high school completion rates for African American and Hispanic students

were lower than Caucasian students in the same state. The transferability of the study findings is

in terms of lessons learned that may be applied within the state or to other states.

Limitations

One limitation of the study was that a department of public health participants had limited

or no experience collaborating with a department of education participants. This may or may not

be a limitation because the participants who had limited experience had similar responses, in

certain instances, as their colleagues from the department of education. I was not able to obtain

participants from the public health department that collaborated with the unit in the department

education for the study. The participants from the department of public health were able to share

their views on collaboration with the department of education in terms of collaboration that could

occur such as better use of data from the Youth Behavioral Risk Surveillance System (YBRSS)

survey and results, the barriers to collaboration, and the importance of collaboration. Finally, the

study was conducted in one location; therefore, the study findings were not generalizable. The

findings are reported in terms of lessons learned that may be applied to other states.

Significance

This study included the views of individuals from two public departments, a department

of public education and a department of public health department in the same state. I was able to

determine how two different groups of people (cases) viewed the use of collaboration as a means

to improve on-time high school completion rates for African American and Hispanic students. The study helped to increase the awareness of managers, supervisors, consultants, and professional staff in a public education department and a public health department about the importance of collaboration as a means to address on time high school completion rates for African American and Hispanic students. Federal, state, and local officials who have the responsibility to implement the Healthy People 2020 objective and target for on-time high school completion rates may obtain insights from the participants regarding areas that need more attention in order for effective and efficient collaboration to occur. There is a need to focus on improving the on-time high school completion rates of African American students in order to reduce or eliminate the disparities in this area. The findings of the study may lead to positive social change if on-time high school completion rates of African American and Hispanic students become similar to Caucasian students. The Institute of Medicine (IOM) Committee on Core Metrics for Better Health and Lower Cost (2015) identified high school completion as one of the potential key measures to improve health and health care in the United States. The IOM viewed high school graduation rate as a substitute for assessing socioeconomic status and community quality in the short term. High school graduation is important because it provides an opportunity for higher learning or training, which in turns leads to better employment, income, and access to health care.

Summary

The Healthy People 2020 objective and target regarding on-time high school completion served as a catalyst for the education and public health sectors to collaborate to improve on-time high school completion rates for adolescent students in the United States (Healthy People, 2016). Healthy People 2020 introduced for the first time SDOH to track and monitor the health status of the United States population (Healthy People, 2016). One of the SDOH is education and one of the specific indicators under this area is on-time high school graduation rates for all students in the United States (Healthy People 2016). It is also one of the leading health indicators of Healthy People 2020. There is a disparity in terms of on-time high school graduation rates among African American and Hispanic students when compared to Caucasian students throughout the United States. Telfair and Shelton (2012) said that high school completion is linked to improvements in health during youth, adulthood, and older adulthood. The participants in this study provided their perspectives or views on the use of collaboration as a mean to improve on-time high school completion rates for African American and Hispanic students when compared to Caucasian students.

The theoretical framework for this study was based on Rawls's theory of justice, which provided an ethical basis for decision-making among individuals in a public education department and a public health department to use collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Amartya Sen's capability approach framework was used to assess a department of public education and public

health department use of a capability such as collaboration to improve on-time high school completion rates for African American and Hispanic students. A multiple case study approach was employed for this study. I used a purposeful sampling approach. A key assumption of the study was individuals in a public education and health sector, at the state level, would make honest, rational, and fair decisions to improve on-time high school graduation rates for African American and Hispanic students. The study raised awareness about the need for managers, supervisors, consultants, and professional staff in a public education department and a public health department to use collaboration as a means to improve on-time high school completion for racial and ethnic minorities. The literature review in Chapter 2 provided the underpinnings for this study.

Chapter 2: Literature Review

The research problem was how managers, supervisors, consultants, and professional staff viewed collaboration as a means to improve on-time high school completion rates. The purpose of the multiple case study was to determine how managers, supervisors, consultants, and other professional staff in a department of public education and health department viewed the use of collaboration as a means to improve on-time high school completion for African American and Hispanic students? There is recognition for education and health to work jointly or to collaborate to improve educational attainment and health of students, particularly, for adolescents (Allensworth, 2014; Kolbe et al., 2015).

Varda et al. (2012) discussed how a literature review of public affairs provided a history in research about collaboration in terms of organizational theory and tools for public health practice. Moren and Bodeman (2015) described the perceptions and experiences of elementary school counselors' collaboration with CMHPs. O'Brien (2011) examined the inter-professional collaboration of individuals from the health and education sectors and the impact these two sectors had on schools-based projects in the community. Other authors described the experiences of other disciplines that worked in collaboration to improve health services in communities (Norris-Tirrell, 2012; Perrault, McClelland, Austin & Sieppart, 2011). Morris and Miller (2016) discussed definitions of collaboration. Mayer and Kenter (2016) and Williams (2016) discussed issues surrounding the development of a theory of collaboration in terms of a conceptual

framework. Miller-Stevens et al. (2016) discussed elements of collaboration and the concept of collaborative federalism.

The Healthy People initiative's historical overview was described by a number of authors (Fielding, Brownson, & Green, 2011; Fielding, Kumanyika, & Manderscheid, 2011; Green & Fielding, 2011). Disparities in on-time high school completion rates are found in NCES (2015) data and the research by Fitzgerald et al. (2012), who examined high school completion disparities in terms of school size in Texas. SDOH are factors along with health that contribute to individual and community health in terms of health outcomes. The developers of Healthy People 2020 recognized the importance of educational attainment and health as having an impact on the health status of a population. Various authors discussed SDOH as the conditions under which people live (Braverman, Egerter, & Mockenhaupt, 2015; Cohen & Syme, 2011; DeMaio, Mazzeo & Ritchie, 2013). SDOH are described as the fundamental causes of diseases (Link & Phelan, 1995). Marmot (2006) argued that SDOH affect the health of a population in terms of social gradients. Preda and Voight (2015) cautioned the use of SDOH for policy and interventions and cited the need for more research on SDOH. Chapman (2015) challenged the assertions of Preda and Voight (2015). Daniels (2015) agreed that more research is needed on SDOH and the impact on health outcomes; however, there is agreement that SDOH can be used as a framework to address health inequalities and health disparities. Fielding, Brownson, and Green (2011) argued the need to understand SDOH as it relates to health policy and decisions about health prevention and promotion activities. By incorporating AH-5.1 into Healthy People

2020, the developers of this initiative recognized the relationship between education and health and the impact on health outcomes of adolescents. Allensworth et al. (2011) and Lewallen et al. (2011) viewed the relationship of education and health in terms of health issues that impact the ability of adolescents to learn at school such as substance abuse issues and chronic illnesses. Bradley and Green (2013) and Cohen and Syme (2013) recognized the relationship between education and health. Galea et al. (2011) found that social factors contributed to deaths in the United States population. Goldman and Smith (2011) found that education is a strong social factor that impacted health status over the last thirty years. Hayward, Hummer, and Sasson (2015) and Smith, et al. (2015) attempted to show the possible causal relationship between education and health, in terms of a contextual basis such as time, location, and populations.

This chapter contains the literature review which starts with on overview of the theoretical framework and conceptual framework used in this study, which are Rawls's theory of justice and Sen's CA. This is followed by the key concepts of the study, which include a discussion on collaboration, brief discussion of the history of the Healthy People initiative in the United States and current Healthy People 2020 initiative, a discussion on SDOH, and a discussion on the relationship between education and health. Individuals in a public education and health department can work in collaboration to address the problem of disparities in on-time high school completion.

Literature Search Strategy

Multiple electronic databases were searched based on the topic of interest. The search of the literature began with a review of Thoreau and Google Scholar. Other key databases were CINAHL Plus with full text, Education Research Complete, ERIC, Cochrane Database of Systematic Reviews, ProQuest, Nursing and Allied Health Source, ProQuest Central, SAGE Premier, and the Walden University dissertation database. Key terms used in the literature search were *collaboration*, *health*, *education*, *high school completion*, *health and education*, *high school achievement*, *health status*, *interorganizational*, *high school attainment*, *public health*, *educational attainment*, *education and health sectors*, *public health and education*, *public health management*, *collaboration*, *public health, education sectors*; and *high school graduation rates.* The literature review aimed for sources published between 2000 to 2017, with most literature published between 2011 and 2017.The main types of literature reviewed were peer-reviewed journals and books. In addition, several reports were reviewed.

Theoretical Foundation

John Rawls's theory of justice, a political philosophy, was developed in 1971. Rawls envisioned what a hypothetical society would look like when free and rational persons, who were concerned with furthering their own interests would recognize equality for the disadvantaged (Kelly, 2001, pp. 5-18, & 20-29; Rawls, 11-19, 1971). Rawls discussed the role of justice in society in terms of the liberties of equal citizenship which were engrained in society and should not be subject to political favors or the demands of social interests. The central idea of the theory

is based on a set of principles of justice for the basic structure of a society (Kelly, 2001; Rawls, 1971). The principles were free and rational persons will not make decisions based on their own interests but would accept equality as a measure for their beliefs and associations (Kelly, 2001; Rawls, 1971). The principles would regulate all agreements and specify the kinds of social cooperation and the forms of government (Kelly, 2001; Rawls, 1971).

Decisions will be made regardless of race, ethnicity, gender, or social position. Decisions would be made under a veil of ignorance (Kelly, 2001, pp. 5-18 & 20-29; Rawls, 11-19, 1091). The decision makers would make decisions not knowing how they would end up in society, but in terms of ensuring that decisions are made that benefit the least advantaged in a society (Kelly, 2001, pp.5-18 & 20-29). A fair and just society is based on Rawls's two principles of justice: (1) citizens are free and equal based on constitutional rights; and (2) social and economic inequalities are addressed by individuals who are in positions that are open to all citizens (Kelly, 2001, pp. 46-79; Rawls). This second principle includes the difference principle, which requires FEO (Kelly, 2001, pp. 46-79, Rawls, 1971, pp. 83-100). As an example, a society must provide for fair and equal opportunities of education for every citizen regardless of income.

In Rawls's theory of justice, there was no specific accounting for health and SDOH. Ekmekci and Arda (2015) argued that health and SDOH should be considered in the list of social goods originally presented by Rawls that must be distributed in a fair and just manner. Daniels (2001) argued that Rawls's theory of justice regulates SDOH. In this research study, the problem identified was how individuals in a public education department and a public health department

viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students? Individuals in a public education and health department can work in collaboration to address the problem of disparities in on-time high school completion. Miller-Stevens et al. (2016) recognized the importance of collaboration as a major approach to address complex problems. At the federal level, it was difficult to resolve major issues (Miller-Stevens et al., 2016). The completion of high school is critical to provide individuals a fair opportunity for further educational achievement that leads to better health over the life span of an individual. Rawls's theory of justice provided an ethical basis for individuals in a public education department and a public health department to decide to use collaboration as a means to improve on-time high school graduation rates of African American and Hispanic students. I selected Rawls's theory of justice because of the focus on the fair distribution of primary goods and the enhanced interpretations offered by Ekmekci and Arda (2015) and Daniels (2001) that the theory of justice is applicable to the inclusion of SDOH as primary goods. Also, Rawls's concept of FEO aims to ensure that individuals have the opportunity to education regardless of income.

Conceptual Framework

Amartya Sen's CA is a conceptual framework and developed as an alternative to welfare economics that focuses primarily on the means to ends. According to Robeyns (2011), the CA is a flexible and unspecified multipurpose framework developed by Sen over a period of time (during the 70s, 80s, 90s, and through 2009). CA is generally understood as a conceptual

framework for a range of normative or standard exercises for the following: (a) assessment of individual well-being, (b) evaluation and assessment of social arrangements, and (c) the design of policies and proposals about social change in society (Robeyns). In these exercises, CA prioritizes people's beings (capabilities) and doings (functionings), and their opportunities to realize their beings and doings (Robeyns; Sen, 1999).

Key Elements of the Capability Approach

Robeyns (2011) identified seven core ideas of CA, which evolved from Sen's original framework. The first core idea refers to capabilities and functionings. The capabilities are the various states of human beings and functionings are activities that a person can undertake as a result of his/her capabilities (Robeyns). Capabilities are a person's real freedoms or opportunities to achieve functionings (Robeyns). The distinction between capabilities and functionings is between valuable opportunities from which to choose and achievements based on those opportunities (Robeyns).

The second core idea refers to a metric for interpersonal comparisons in terms of capabilities and functionings. Robeyns (2011) said that capabilities and functionings are the best metric for most kinds of interpersonal comparisons. The capabilities and functionings constitute factors that make life valuable and are viewed in a comprehensive or holistic manner (Robeyns, 2011). The third core idea refers to the means and ends distinction. For the CA, the ultimate ends of interpersonal comparisons are people's capabilities (Robeyns). Robeyns observed that this implies that CA evaluates policies and other changes in terms of their impact on people's

capabilities as well as their actual functionings, and it is better to focus on the ends rather than the means because people differ in terms of their ability to convert means into valuable opportunities and outcomes. Robeyns further said there are two advantages for focusing on ends rather than means. According to Robeyns, the valuation of the means will retain the status of an instrumental valuation rather than on what it means internally to the person. For example, money or economic growth will not be valued for their own sake, but only in terms of how money and economic growth can contribute to an expansion of a person's capabilities. The other advantage of focusing on the ends is we do not assume that there is only one critical means to an end such as income but ask the question which types of means are important to support and cultivate a particular capability or set of capabilities? Robeyns gave the example of an effective capability for enhancing policy may not be in terms of increasing disposable income, but in terms of fighting homophobia, ethnophobia, racist, or sexist social climate. The differences in how capabilities are viewed leads to the fourth core idea, the conversion factor.

Conversion factors are the characteristics of a good or commodity, for example, the use of a bike was used as an illustration of the conversion factor. According to Robeyns (2011), if a person is taught to ride a bike as a child that person will have a higher conversion factor than the person with a physical impairment. The conversion factor represents how much functioning a person can get out of a good or service. For example, how much mobility can a person get out of the use of a bicycle to enhance a capability such as walking? Robeyns said that other resources are needed to increase the mobility of the physically impaired person. Robeyns identified three

different types of conversion factors as follows: (a) personal conversion factors are internal to the person such as metabolism, physical condition, gender, reading skills, or intelligence; (b) environmental conversion factors are derived from the physical or built environment in which a person lives; and (c) social conversion factors include the norms and culture of a person's environment. Robeyns said that these three conversion factors emphasize that it is not sufficient to know the resources needed for well-being or enhancing a capability to achieve something such as increasing a person's mobility; it is also important to be able to use the achievement. Thus, it is important to know much more about the person and circumstance. Robeyns said that Sen used capability not to refer only to a person's abilities or other internal factors but to refer to an opportunity made feasible, and constrained by, both internal (personal) and external (environmental and social) factors.

The fifth core idea refers to the acknowledgement of human diversity. According to Robeyns (2011), the CA critique of other normative approaches is often that the full diversity among people is insufficiently acknowledged in many normative theories such as theories of distributive justice. CA takes account of human diversity in at least two ways: (a) by a focus on the plurality of capabilities and functionings as important for wide range of dimensions in the interpretation of well-being and well-being outcomes; and (b) human diversity is emphasized in the CA by the focus on personal, environmental, and social factors that make possible the conversion of commodities and other resources into functionings, and on the social institutional, and environmental context that influences the conversion factors and the capability set directly.

The sixth core idea refers to basic capabilities. The terminology for basic capabilities has evolved from the freedom to do some basic things considered necessary for survival and to avoid or escape poverty to look at capabilities in affluent countries that would also focus on capabilities that are less necessary for survival (Robeyns). Finally, the seventh core idea refers to capabilities as freedoms. According to Robeyns, Sen acknowledged that there are many kinds of freedoms that include valuable, detrimental, or trivial freedoms.

Examples of the Application of the Capability Approach

The first example is Dalkilic and Vadeboncoeur's (2016) application of CA to address the need to improve the implementation of inclusive education for children with developmental disabilities. Inclusion education is a global approach that addressed the problem of the segregation of children with developmental disabilities from mainstream education. Dalkilic and Vadeboncoeur focused on early childhood education in Canada and the need to address the limitations of the medical and social models of disability. Dalkilic and Vadeboncoeur said although their application concerned early childhood education, that it could be applied to grades K-12. Inclusion education provided a rationale for ensuring that children who were labeled with disabilities would attend the same schools and receive the same education as other children. Dalkilic and Vadeboncoeur said despite the acceptance of inclusive education, it has not been fully realized in terms of focusing on diversity and welcoming all learners in the educational system. Dalkilic and Vadeboncoeur reviewed the principles of equality and equity in education and argued that school administrators, teachers, parents, and input from children and youth can

identify the capabilities and functionings that are valuable to them. The specifics of the situation must be examined in order to proceed with appropriate practices that are regarded as beneficial for all members of the educational community (Dalkilic &Vadeboncoeur, 2016)

Dalkilic and Vadeboncoeur (2016) advocated for reframing the concept of inclusion in education in terms of well-being and agency. Dalkilic and Vadeboncoeur focused on relational inclusion in terms of the culture and context in determining which practices will expand the capabilities of children and for them to obtain their valued functionings. Dalkilic and Vadeboncoeur used the human diversity core idea of the CA in terms of the need to provide interventions that go beyond the concept of one size fits all students and to address the needs of the children based on input from both parents and children.

Dalkilic and Vadeboncoeur (2016) said that inclusion education should be reframed to encompass education based on well-being and the need to address children's agency, their ability to provide input, and to have their input considered when establishing educational policies and practices. According to Dalkilic and Vadeboncoeur, a system of education based on CA fosters movement away from restrictions imposed by binary thinking by focusing on an anti-binarist viewpoint. Dalkilic and Vadeboncoeur said that CA argues for a holistic review of systems and evaluates how the system enhances and hinders the participating individuals' ability to obtain their valued functionings under specific conditions. CA allows for a dynamic assessment of educational practices, as environments or practices are not labeled inclusive or exclusive, but are continuously evaluated and modified for new ways to enhance the capabilities of children

(Dalkilic & Vadeboncoeur, 2016) According to Dalkilic and Vadeboncoeur, CA seen through relational inclusion considers educational practices as a spectrum and open to change in relation to a particular student's functionings, given that all children are different from one another, and that their capabilities change over time. The aim of relational inclusion is to ensure that culture and context are taken into consideration when determining which practices will expand the capabilities of children for them to obtain their valued functionings (Dalkilic & Vadeboncoeur, 2016)

Dalkilic and Vadeboncoeur (2016) gave the example of a child with profound hearing impairment and how a teacher considered the input of the parent and child to expand the capability and functioning of the child. The teacher allowed for the child to learn lip-reading as opposed to only receiving training in sign language based on the input of the parents and child. The teacher had to find the time for this additional capability and made an ongoing commitment to ensure that the child received training in lip-reading even though it was not initially a part of the child's program. The actions of the teacher had to consider what the parents and child valued as capabilities and functionings of the child in order to engage in the world both inside and outside of the classroom (Dalkilic & Vadeboncoeur, 2016).

The other example of the application of CA is Ferrer and Carrasco's (2010) application to improve clinical success and outcomes for patients. Ferrer and Carrasco said improved outcomes for chronic diseases remains an issue because success depends on situations outside the control of the health care system. The most important influences on self-management by patients are the

social and environmental constraints that impact patient outcomes. Ferrer and Carrasco described the situation involving a 48-year-old female patient diagnosed with type two diabetes who regularly kept appointments for three years, at her physician's office, and attended patient education and nutrition programs, but there was a lack of clinical success in controlling her blood sugar. This patient also appeared to take her medications based on ongoing monitoring by her physician. Ferrer and Carrasco believed there were social and environmental barriers that impacted the clinical results of the patient's treatment.

The CA approach was used to address the social and environmental factors that hindered the patient's progress in controlling her blood sugar. Ferrer and Carrasco (2010) used the capability framework by first defining it as a method to evaluate individual well-being and its social context. Ferrer and Carrasco defined capability as the extent to which people have the opportunity to live the kind of life they value, and that value can emerge from activities such as eating well or being-well-nourished. Capability also encompasses higher-level goals such as being independent enough to make one's own decisions (Ferrer & Carrasco, 2010).

Ferrer and Carrasco (2010) further said it was crucial to examine the set of potential opportunities that are viable for a given person's capability set, that helps to define what goals are attainable. In addition, at the community level, the CA aims to shift the view on behavior change away from framing in terms of noninterference and toward considering positive supports such as the availability of fruit and vegetables in neighborhood markets (Ferrer & Carrasco, 2010). Based on this viewpoint, without support for healthy lifestyles, the freedom to pursue

health is illusory for those with the will but not the means to achieve a healthy lifestyle (Ferrer & Carrasco). Ferrero and Carrasco said the CA reminds us that providing resources is not sufficient without also considering how they will serve people with a range of needs. Also, strong external supports create opportunities that enable people with limited resources to pursue their goals for a healthy living (Ferrero & Carrasco, 2010). Ferrero and Carrasco acknowledged that the CA was in its early stages of development for health and health care application; therefore, they offered a potential use in the clinical and community contexts of primary care and to provoke further discussion, development, and evaluation.

Ferrero and Carrasco (2010) developed a scheme for evaluating real opportunities and potential interventions for the patient's health and control of her diabetes. In their evaluation under assessment, Ferrero and Carrasco (2010) raised three questions: (a) what are the person's values and goals with respect to this health issue, (b) what resources are locally available, is it easy to access them, and how convenient are they; and what is the price; and (c) what personal, family, or community factors help or hinder using these resources? Under intervention, Ferrero and Carrasco asked the following questions: (a) what is the functional goal, is there an opportunity to achieve the function in another way; (b) what personal, family, or community assets can be leveraged to increase opportunity; and (c) can the social context be addressed through community action or advocacy?

According to Ferrero and Carrasco (2010), the physician treating the patient applied these capability questions and responses by the patient and became informed about the social and

environmental factors that hindered the patient's progress. First, there was a lack of a full-service grocery store in the patient's neighborhood, the patient did not own a car and depended on an adult son to drive her to a distant market to purchase food. Her son's availability did not always align with her needs and she shopped at the neighborhood convenience stores that did not stock fresh produce or other healthy alternatives. Although she tried to plan meals based on the input of the nutritionist, her husband, who was also diabetic did not like the recommended meals and refused to eat them more than once a week. In addition, she sometimes struggled to find time to prepare meals at home because she cared for two young grandchildren at her daughter's home. On the evenings when her daughter returned home late, she and her husband would eat at the nearby fast food outlets. Her doctor contacted the patient and assigned a community-based group to assist the patient with the management of her diabetes. The patient attended several culturally relevant cooking classes and the patient learned to make meals that would be more palatable for her husband. The patient also learned to do bulk cooking once or twice a week so that extra portions could be stored and quickly reheated as needed. These were the additional inputs or resources that the patient needed to increase her capabilities and, hopefully, this will lead to improved clinical control of her diabetes (Ferrero & Carrasco, 2010).

According to Ferrero and Carrasco (2010), CA expanded the informational basis for making clinical assessments and highlighted areas where the patient's knowledge and motivation may be hindered by difficult circumstances. The focus on external as well as internal factors indicated that the CA can potentially add to the effectiveness of patient self-management and

empowerment strategies. CA may also help to increase the effective management of chronic diseases by identifying patients who are at high risk of failing to change behaviors (Ferrero & Carrasco, 2010). Ferrero and Carrasco (2010) said that CA provided a path to identify additional resources that can be given to at-risk patients without having to rely on broad indicators such as race or educational level that may risk misclassifying patients with adequate capability to achieve change.

Ruger (2004) observed that research over the last several decades identified social inequalities in health both within and between countries, and that the research served as a catalyst for countries to pursue strategies to reduce socioeconomic inequalities in health. Ruger focused on the application of Rawls's theory of justice and the application to SDOH, and proposed an alternative philosophical framework based on Amartya Sen's CA. Ruger acknowledged that the theory of justice was an important starting point for a philosophical discussion of SDOH based on the belief that justice requires the fair distribution of primary goods and that rational people, behind a veil of ignorance, would choose principles of justice that would arrange social and economic inequalities so that they benefit the least advantaged members of society (Ruger, 2004).

Ruger (2004) said that a critique of Rawls's theory of justice was its focus on the means rather than ends because it does not take account of human diversity. Ruger argued that Rawls's theory of justice was more resource focused and that Sen's CA was more results focused. Ruger further stated that the CA was more people-centered and agency focused in terms of expanding

the capabilities of people. Ruger provided the example that better education for women reduces child mortality directly through a women's expanded ability to obtain, understand, and act on health-related information, but also indirectly by increasing her respect and empowerment in decision-making. Lower child mortality rates, in turn, helped to reduce birth rates by reinforcing the influence of better education regarding fertility (Ruger, 2004). The CA emphasized the importance of human agency and people's ability to live a life they valued (Ruger). Ruger said that the CA applied to SDOH recognized the importance of addressing health needs on multiple fronts and emphasized the integration of public policies into a comprehensive set of health improvement approaches delivered through a range of institutions. The focus for this study is on a public department of education and a public health department and how individuals, in these departments, viewed collaboration, a capability and functioning, as a means to improve on-time high school completion rates for African American and Hispanic students.

I chose the CA framework because it was complementary to Rawls's theory of justice. The CA provides an expansion of how individuals value and use capabilities in order to achieve, select, and value capabilities so that other capabilities may be enhanced. The interview questions at (Appendix E) and responses from the participants provided insights on how two groups, a department of public education and a department of public health viewed the use of collaboration to improve on-time high school completion rates for African American and Hispanic students. The insights from these two groups, hopefully, will begin to identify the barriers that must be addressed to reach the goal of improving on-time high school completion rates for African

American and Hispanic students through their collaborative efforts. The participants provided

insights in terms of how they viewed a capability such as collaboration, the need for training, and

the elimination and reduction of barriers that prevent the achievements or functionings necessary

to improve on-time high school completion rates for African American and Hispanic students.

Literature Review Pertinent to Key Concepts

Collaboration

The Healthy People 2020 goal for students to complete high school, with a regular

diploma, within four years upon entering the ninth grade provides support for collaboration

between the education and health sectors. Allensworth (2014) argued the need for involvement

of the public health sector to work with individuals in the education sector to improve the

educational attainment of youth, leading to improving their health. The focus of these efforts

should be on youth who are socioeconomically disadvantaged and those that are homeless.

Allensworth (2014) asserted that public health officials who understood the Healthy People

initiative knew about the importance of education since 1990, the goal is currently at the level of

an LHI in terms of on-time high school completion rates. Also, Allensworth (2014) raised the

concern that a 2011 survey of public health departments in the United States found that only 38%

of local health departments were involved with school health. Allensworth et al. (2011) said that

health and education were interdependent, as supported by a review of the literature. The authors

presented evidence of effective programs in the United States that strived to improve the high

school graduation rates of racial and ethnic minorities. African Americans, Hispanics, and Native

Americans were affected disproportionately when compared to Caucasian students (Allensworth et al, 2011).

Collaboration between education and health was described as a resurgence of efforts to engage health and education partnerships to improve educational and health outcomes for children. Kolbe et al. (2015) described the history of partnerships involving the federal, state, local, and nongovernmental agencies to improve educational and health outcomes for children. The history covered the period from the 1970s through the early 2000s. For example, during the 1970s, CDC assisted schools in implementing various types of school health programs. Schools were identified as an appropriate setting to implement the HIV/AIDS health education program to prevent the spread of HIV/AIDS among adolescent students (Kolbe, et al., 2015). The Whole Child and coordinated school health (CSH) approach was the precursor for the Whole School, Whole Community, Whole Child (WSCC) framework which was an improved structure and process for collaboration among the public education and health sectors (Kolbe et al., 2015). CDC (2018) described the WSCC approach as a model to help improve learning and health through an emphasis on the psychosocial and physical environment, as well as the role that community agencies and families play to improve childhood health and behavioral development. WSCC is a framework for addressing health in schools, and it is student-centered. WSCC approach emphasizes the role of the community in supporting the school, the relationship between health and academic achievement, and the importance of evidence-based school policies

and procedures in order to improve the educational attainment and health of children (CDC, 2018).

Kolbe, et al. (2015) discussed a specific program that was a precursor to the WSCC model, the Wisconsin's Department of Public Instruction and Wisconsin's State Education Agency (SEA). The SEA led and coordinated the state department of health and nongovernmental agencies efforts to improve the health of children. Through anecdotal reports, school administrators felt that collaborative activities resulted in improvements in physical activity and cardiovascular fitness (Kolbe et al.,2015) The school administrators believed that these improvements led to improved learning and overall health of students (Kolbe et al.) One of the lessons learned from this partnership between education and health was a collaborative state partnership improved the education and health outcomes of children in an effective and efficient manner.

Lewallen et al. (2015) discussed the evolution of the WSCC approach. During the spring of 2013, the former Association for Supervision and Curriculum Development (ASCD) and CDC met to discuss lessons learned from the partnerships they established over the last two decades. As a result of the discussions, the WSCC approach was developed. WSCC is a framework for shared decision making and action by both the education and health sectors, which include health and public health. An outcome of the meeting was a redefinition of the WSCC approaches to collaboration called the Learning Compact Redefined: A Call to Action. The call to action was for decision makers from public education and the CDC to work together in a unified manner in

order to ensure the implementation of policies that would ensure the following: The Learning

Compact Redefined: A Call to Action, which included five elements: (a) students should start

school healthy and practice healthy lifestyles; (b) students should learn in a physically and

emotional safe environment; (c) students should be actively involved with learning and engaged

with the school and larger community; (d) students should have access to individualized learning

from qualified adult and adults who care about them; and (e) students are prepared for college

success or additional study for opportunities in a global environment (Lewallen et al., 2015). The

five elements constituted the framework for a partnership or collaboration between the health,

public health, and education sectors. Lewallen et al. (2015) said the new WSCC approach was

designed to provide a basis for shared decision making between education and health, including

public health and the need to encompass the role that SDOH such as education play in the health

of individuals and populations. The WSCC approach is an example of collaboration between

education and health, which also includes public health.

The WSCC approach or model is the foundation for CDC's Healthy Schools' program,

which is an alignment between the education, public health, and school health sectors to improve

each child's learning ability, physical, social, and emotional development. Education and public

health serve the same children. WSCC's approach was implemented to foster collaboration

between the education and public health sectors. Through partnerships with key leaders in public

education and health, programs such as nutrition and physical activity are promoted in schools.

CDC provides funds to state education agencies for the work they do for school health. Also,

technical assistance and specialized tools are provided to states (CDC Healthy Schools, 2018).

There is support for the use of collaboration to address complex social problems such as

improvements in high school graduation rates for all students. There is a need to foster

collaboration to meet the mutual goals of education and health via an interdisciplinary process

(Allensworth et al., 2011). Albert and Davia (2010) discussed the importance of an

interdisciplinary approach between education and health, and the need for improved coordination

between education and health for policies aimed at improving health literacy.

Hahn et al. (2015) argued that high school completion (HSC) was an established

predictor of long-term health. Hahn et al. conducted a systematic review of the literature to

address the effectiveness of diverse HSC programs that increase the rates of HSC or GED, which

is referred to as general education development or general education diploma. The GED is

comprised of a series of tests and when passed meet the high school level of education skills. The

Community Guide review process was used to assess the effectiveness of programs to increase

HSC. Hahn et al. found that there was a wide array of HSC programs for the general population

for students at risk for not completing high school. Implications for future research was public

health researchers conducting systematic reviews of educational interventions faced two

challenges: (a) educational research rarely assessed health outcomes, and (b) public health

practitioners may not accept the validity of actions in other fields such as education despite

evidence supporting the effectiveness of interventions in these fields. Hahn et al. found that

collaboration between individuals in governmental and nongovernmental agencies was recognized as a major approach to address a problem such as high school completion.

Knopf et al. (2015) discussed their findings based on a meta-analysis review of the effectiveness of school-based health centers (SBHCs), which are part of CDC's Healthy Schools program. Services are offered to students pre-Kindergarten -Grade 12. Knopf et al. based their findings on evidence from a systematic review of 46 studies that included a variety of designs to assess academic and health outcomes. The study populations were from racial, ethnic, and low-income populations which included African American and Hispanic communities. Knopf et al. found SBHCs were effective in improving a range of health-related outcomes such as better nutrition and physical activity. Knopf et al. said that SBHCs are reported to improve student academic objectives and to increase adolescents' responsibility for an awareness of their health.

Varda et al. (2012) completed a systematic review of research on collaboration and network in the public affairs literature for the period 2000-2009 to explore how the results from public affairs research can provide knowledge regarding public research and practice based on the growth of collaboration and partnerships to address complex issues that impact health outcomes. Varda et al. conducted a search for articles in the top 5 peer-reviewed academic journals in the field of public affairs. Varda et al. identified all articles about collaboration or partnerships published during 2000-2009. Varda et al. recognized that a systems approach is required to address health problems and that factors outside of health contribute to health outcomes of the population. One of findings of the review was literature on public health affairs

contributed a rich history in research on collaboration that provides special organizational theory and management tools for public health practice (Varda et al., 2012). Collaboration was identified as a means to improve public health practice in addressing complex social problems (Varda et al., 2012).

Varda et al. (2012) found that outcomes of collaboration in public health included traditional population health outcomes such as reduction of health disparities, reduction of chronic disease, and improved direct health care services. Varda et al. found process outcomes such as the creation of public policy, laws or regulations, increased education services, improved communications, sharing of resources, and creation of new sources of data. Varda et al. identified several limitations of the review as follows: (a) the review of published articles covered a ten-year period and did not include a review of books or book chapters published during that time; and (b) the review search was limited to articles whose titles contained at least one of the search terms. According to Varda et al. because of these limitations, they may have omitted some relevant articles. Varda et al. said they were confident that their results would not have been altered in any significant manner by the addition of any articles that did not show up in the title search. The public health and education sectors traditionally operate in hierarchical structures to meet the objectives of each entity (Varda et al, 2012). Inter-organizational partnerships provide a means for public health agencies to obtain resources, and to share knowledge aimed at improvements of the health outcomes of a population (Varda et al).

Moran and Bodenhorn (2015) described the perceptions and experiences of elementary school counselors' collaboration with community mental health providers (CMHPs), to improve the mental health needs of students that were not met by the school system and affected learning by students. The phenomenological method was used to obtain in-depth descriptions and interpretations that elementary school counselors and CMHPs had about collaboration. Ten elementary school counselors participated in the study. Two face-to-face interviews were conducted using semi-structured interviews. Member checks, triangulation of interviews, field notes, and a reflexive journal were used to collect information. Also, a demographic survey was administered. Moran and Bodenhorn (2015) discussed the cautions about the study findings: (a) the study was conducted in one geographic area, (b) only one male participated, and (d) there were no participants from CMHPs. However, Moran and Bodenhorn found that school counselors expressed the following perceptions: (a) need for school counselors to be more proactive, (b) take advantage to build relationships with the CMHPs, (c) network to advocate more time to collaborate, (d) educate parents about the benefits of collaboration, (e) educate school administrators about collaboration, and (f) build in collaboration training during the training sessions of school counselors at their professional conferences.

O'Brien (2011) explored the inter-professional collaboration of individuals from the health and education sectors and the impact these two sectors had on schools-based projects in the community. The focus of the study was on the inter-professional issues in administering a small-scale program in which parents from the local community brought their babies into

classroom settings to talk about baby care and development. This program was operating in eight neighborhood schools in an urban area in the United Kingdom. The professionals included one assistant executive director of a local children's service, a neighborhood learning network director, one senior children's nurse, and two-family health visitors. A focus group was held with four classroom teachers. Data were collected from taped recordings of the participants' responses to six interview questions. The responses from the education and health group were organized into two separate groups. The data were independently analyzed for each group. Cross-interview data were themed and analyzed for each group in order to provide two professional narratives that were used to compare the responses of the study participants. O'Brien found challenges in terms of how the two sectors interpreted their roles and responsibilities, issues surrounding the structure of the program, the content, purposes, and outcome of the programs. O'Brien concluded that even with the challenges, the interprofessional working relationship between health and education should be supported by the community.

Researchers in other disciplines examined collaboration as a means for social workers to work with community organizations to improve service delivery. Perrault, et al. (2011) conducted a qualitative study to determine what constitutes a successful collaboration. Perrault et al. defined collaboration as a sustainable relationship that fosters a working relationship between organizations that previously worked separately to meet their goals. Perrault et al. acknowledged that social workers entered partnerships to meet their objectives to improve service delivery; however, there are barriers to developing collaboration with other entities due to structural,

funding, and political differences. In addition, there was a need to determine what factors contribute to successful collaborations. Perrrault et al. applied a new survey instrument in their research to gain information about factors that are successful to a collaborative relationship between different entities. The researchers employed the Wilder Collaboration Factors Inventory (WCFI) in their study and found that two factors were confirmed from this 40-item scale, which led to a successful collaboration: (1) the need for informal and formal relations, and (2) the need for relationships that show respect, trust, and understanding for each other (Perrault, et al., 2011). There are other factors that were found by the researchers that impact the success of collaboration between organizations: leadership that evolved and is shared, and the learning process that is experienced by the organizations (Perrault et al, 2011). Although the study results applied to specific case studies, the concepts used in the study in terms of the definition of collaboration and factors that contribute to successful collaborations may be applicable to collaboration between the public health and public education sectors to address a complex problem such as the need to improve on-time high school completion rates for African American and Hispanic students.

Another author examined factors that contribute to determining the efficacy of the use of collaboration. Norris-Tirrell (2012) reviewed four articles on the effectiveness of collaboration to address policy in health care, pre-kindergarten education, child-care services, and senior services. The findings of the review revealed that the dimensions of effective collaboration included: (a) a focus on transparency, (b) ongoing communication, (c) agreement on the

identification of the problem to be addressed, and (d) the establishment of relationships that shifts competition to cooperation (Norris-Tirrell, 2012). Norris-Tirrell indicated that the study findings were based on specific case reviews and are not generalizable to other settings. The status of development of a definition and theory of collaboration is important to provide an explanatory framework for the use of collaboration and to provide consistency in the application of collaboration across institutional settings.

Definition of Collaboration

Although collaboration is used in various organizational settings, there is a continuing challenge to provide a consistent and standard definition of collaboration. The definition has evolved over a thirty-year period. Morris and Miller-Stevens (2016) discussed this evolution based on Gray's research conducted in 1985. The aim of Gray's research was to define relationships across inter-organizational, inter-sectoral settings, and applied to situations. Some of the definitions included: (a) interactions between organizations, (b) collaboration structure, process, and outcome, and (c) assignment of accountability and decision-making (Morris & Miller-Stevens, 2016).

According to Morris and Miller-Stevens (2016), earlier definitions of collaboration were in terms of voluntary efforts that evolved to mandated collaborations aimed at collective action to address complex problems. There is still no widely accepted definition of collaboration and it remains a function of the discipline, the setting, and the research performed. Morris and Miller-Stevens argued for an interdisciplinary approach to define collaboration to achieve a better

understanding and application of the use of collaboration. There appears to be agreement that complex social problems require an interdisciplinary, inter-organizational approach, and inter-sectoral approach, for example, to address a complex problem such as the need to improve on-time high school completion rates for African American and Hispanic students when compared to the high school graduation rates for Caucasian students in the United States.

Status of the Development of a Collaboration Theory

A theory of collaboration is important to help practitioners to understand collaboration and its use across a range of inter-organizational setting (Williams, 2016). Currently, there is no explicit theory on collaboration, but a linking of various theories from disciplines to help to explain the phenomenon of collaboration. Williams (2016) reached this assessment based on a review of studies that explored collaboration based on case studies in public administration. There is a lack of generalizability regarding the following two main efforts to develop a collaboration theory (Williams, 2016). First, there are researchers who study collaboration in terms of a framework based on a systems approach of an input, process, and output cycle (Williams). These frameworks help to conduct analyses of collaboration at many levels within and across organizational settings. In the basic systems approach, there is a dynamic process that uses adaptation and interactions, which permits changes in processes, participants, and governance structures (Williams). The frameworks contain the common features of collaboration: trust, mutual goals, interdependence, and benefits; however, the literature revealed that there is a lack of consistency regarding the identification of collaboration frameworks

(Williams). The other approach to the development of a theory of collaboration is based on a review of a broad range of inter-organizational structures and typologies regarding the classification of the features of collaboration (Williams). Further studies are needed across disciplines based on case studies to develop a collaboration theory.

Conceptual Frameworks on Collaboration

Another approach to defining collaboration and its application to address complex problem across organizational structures is through the development of conceptual frameworks. McNamera (2016) introduced an expansion of the multi-organizational model to show the differences between mandated and voluntary collaborations. McNamera used a continuum of interactions, starting from the left with cooperation, in the middle, coordination; and at the far right, collaboration to distinguish between mandated and voluntary collaboration. Mandated collaboration falls between coordination and collaboration (McNamera). Cooperation was defined as between individuals, coordination was viewed as the establishment of formal relationships that are needed to achieve organizational goals, and collaboration was defined as interactions by individuals to solve complex problems based on shared interests and responsibility (McNamera). Collaboration was viewed to address complex problems that could not be addressed individually (McNamera). Ten elements were used in the multi-organizational model that distinguished mandated from voluntary collaboration: design, formality of the agreement, organizational autonomy, key personnel, information sharing, decision-making, resolution of turf issues, resource allocation, systems thinking, and trust (McNamera). The ten

elements provided criteria to examine the organizational interactions along the continuum of cooperation, coordination, and collaboration. This proposed conceptual framework helps to clarify the meaning of different types of interactions. It is important for practitioners to know which elements need to be in place for an interaction to occur (McNamera).

Mayer and Kenter (2016) used another conceptual framework to provide insight on collaboration and its application to address complex problems. The authors identified nine common elements of collaboration found in the literature: communication, consensus, decision-making, diverse stakeholders, goals, leadership shared, resources, shared vision, social capital, and trust. A multidisciplinary literature review was conducted to identify these nine elements. The elements were found in various organizations and at various levels. The information provided additional insights on collaborations involved with public sector organizations. Mayer and Kenter recommended that future research be conducted to operationalize the nine criteria to determine what is standard for successful collaborations in the public sector.

Finally, Miller-Stevens et al. (2016) added to the definition of collaboration based on the concept of collaborative federalism. The authors provided examples of collaborative federalism in the United States and globally. The Canadian government and working sectors used this approach to address the problem of the implementation of public policies governing immigrants entering the labor force. In the United States, collaboration between governmental and non-governmental organizations was used for the implementation of policies involving H1N1 influenza pandemics in Australia, Malaysia, and the United States (Miller-Stevens et al, 2016).

Miller-Stevens et al. (2016) identified five elements as components of collaborative federalism: resource capacity, decision-making, institutional activities, the role of government, and the nature and scope of the problem. The authors used these criteria and applied them to three types of organizational structures: interagency, public sector, and grass roots governance structures (Miller-Stevens et al., 2016). Miller-Steven et al. described the three governance structures as follows: (a) interagency structure involves federal, state, and local agencies working together to address a specific national problem, (b) cross-sector includes federal, state, local governments, and also the business and nonprofit organizations working together; and (c) grassroots level includes both formal and informal agencies that work with federal, state, and local levels. Miller-Stevens et al. envisioned these three governance structures as working simultaneously to address complex problems. Miller-Stevens et al. examined the implementation of collaborative federalism through several federal agencies: the Community-Based Child Abuse Prevention Program (CBAP) to address the child abuse problem in the United States, and the United States Environmental Protection Agency initiative to address the numerous watershed issues that impacted the quality of the United States water ways. This conceptual model and the other models discussed are part of the twenty-first century landscape that is needed to address complex problems that affect the health and safety of United States citizens. CBAP and watershed issues were not amenable to resolution by one single agency because of the complexity of the problem, limited, and competing resources. In both situations, according to Miller-Stevens, it was necessary to involve other organizations to address the problems. The

three types of governance structures: interagency, public sector, and grass roots offers a means to explain collaborative federalism to individuals at academic institutions and practitioners in various agencies (Miller-Stevens et al, 2016). The authors recommended that further research is needed that examines the governance's practices of the above three approaches as collaborative approaches.

Healthy People Initiative: Healthy People 2020

The United States Healthy People initiative is a national volunteer program that was created in the 1970s and began its implementation in the 1980s (Green & Fielding, 2011). The Healthy People initiative is a framework that resulted in structure, process, and outcome measures aimed at monitoring and tracking the health status of American citizens (Green & Fielding). The lead United States federal agencies for this initiative are CDC and the Health Resources Services Administration (HRSA) (Green & Fielding). The Healthy People initiative has endured four decades and continues today (Green & Fielding).

In addition, the history of the Healthy People initiative was discussed by Green and Fielding (2011) in terms of the sustainability of the program and the political will of the United States. Green and Fielding (2011) traced the Healthy People initiative from an international, United States, and political context. In each of the four decades of the initiative, objectives and targets were aimed at ensuring improvements in the health status of the United States population. Next is a brief overview of the structure, process, and outcomes for the Healthy People initiative.

The beginning structure or infrastructure for the Healthy People initiative included a workgroup of representatives from CDC, state and territorial directors, county, city health associations, and representatives from the American Public Health Association (Green & Fielding, 2011). In addition, there were two critical laws that served as a catalyst for the development of the Healthy People initiative. First, the enactment of the National Health Planning and Resources Development Act of 1974, which required that the Secretary of the former Department of Health, Education, and Welfare (DHEW), now DHHS to develop national planning goals that reflected national health priorities (Green & Fielding). Second, was the legislation that created national planning goals for health information, health promotion, prevention, and education about the appropriate use of health services in 1976 (Green & Fielding).

While an overview of the history of the Healthy People initiative is important and , included those components that were problematic and those which ensured its continuation, it is also helpful to review the detailed rationale for Healthy People 2020 and the introduction of the use of SDOH to track the health status of the United States population (Fielding, et al., 2011). Healthy People 2020 started in 2010. The Secretary of DHHS appointed a three-member advisory committee to conduct a comprehensive assessment of the previous Healthy People initiatives (Fielding et al., 2011). The Secretary's Advisory Committee (SAC) proposed and obtained acceptance or recommendations that improved the Healthy People initiative in terms of the structure, process, and outcome (Fielding et al., 2011). There was a shift from disease and

illness prevention to increased emphasis on health promotion and disease prevention, as well as the introduction of objectives and targets that focused on SDOH (Fielding et al.). The improvements included a web-based approach for the dissemination of information to the public (Fielding et al.). Although there is no national mandate for the Healthy People initiative, it does provide an overarching strategic plan for ensuring a healthier America, and the plan can be used in policies and programs at the national, state, and local areas (Fielding et al., 2011; Green & Fielding, 2011). As the result of a shift in focus on the identification of problem areas, Healthy People 2020 introduced education as one of the new SDOH. AH-5.1 was identified as an LHI, a critical target to monitor and tract the health status of adolescents in the United States.

According to Fielding et al. (2011), there were improvements in the goals, objectives, and targets as a result of an analysis of baseline data, and incorporation of scientific evidence-based health indicators or objectives, with associated measurable targets, that can be monitored and tracked overtime. The critical goal of the new approach to Healthy People 2020 was to address the issues surrounding the lack of progress on numerous previous objectives and targets, increase the focus on health promotion and disease prevention, include SDOH, and ensure that the process was customer friendly for national, state, and local officials, non-governmental partners, and the public (Fielding et al., 2011).

The working group who developed Healthy People 2020 included, for the first time, federal departments other than DHHS, such as Department of Agriculture, Department of Justice, Department of Education, Department of the Interior, Veterans Affairs, and

Environmental Protection Agency (Fielding, et al., 2011). This structural change resulted in a

systems approach, or the ability and capability to reach outside of health to develop an approach

to the Healthy People initiative by obtaining input from other areas that affect the health of the

nation. This approach resulted in implementation of the health impact assessment (HIA). For

example, when the Department of Education issues a policy, the agency will assess that policy in

terms of health, i.e. health in all policies approach (De Leeuw, & Clavier, 2011; Fielding et

al.,2011). The systems approach was also demonstrated by including advisors outside of the

Public Health Service (PHS), an agency within DHHS, by the inclusion of input from other

federal agencies, external stakeholders, and the public (De Leeuw & Clavier, 2011; Fielding et

al., 2011). Other authors argued the systems approach is very critical to address complex

problems on a societal level (Borkowski, Deckard, Weber, Padron, & Luongo, 2011; Koh, 2009;

Luke & Stamatakis, 2012; Trochim, Cabera, Milstein, Gallagher, & Leishow, 2006).

On-time high school completion rate was included under the Healthy People 2020 AH-

5.1 objective because of the importance of educational attainment and its importance to healthy

outcomes throughout life. On-time high school completion is the completion of high school

within four years after entering the ninth grade (Green & Allegrante, 2011; Healthy People 2020,

2014; Koh, Blakey, & Roper, 2014). Adolescents are less likely to graduate from high school if

they experience poor health (Hass & Fosse, 2008). This objective of Healthy People 2020

represents a departure from disease and illness to health promotion and prevention objectives to

an upstream cause that impacts health such as educational achievement (Green & Allegrante,

2011; Healthy People 2020, 2014; Koh, et al., 2014). The progress report on this health indicator showed improvements; however, it is critical that actions on this objective be increased twofold to ensure that the target is met for all students in the United States (Koh et al., 2014).

In addition, the Patient Protection and Affordable Care Act (PPACA) signed into law in 2010 is critical to the Healthy People initiative, particularly, Healthy People 2020 (Fielding, Teutsch, & Koh, 2012). The PPACA continued the goals of Healthy People 2020 by focusing on health prevention and disease prevention for the population (Fielding et al., 2012). The Healthy People 2020 initiative represented an improved approach to the structure, process, and outcomes in terms of improvements of the health of all Americans. A systems approach was used to obtain input from critical federal agencies so that SDOH would be addressed. The focus of this research study is on SDOH for education, on-time high school completion for all students in the United States, and the aim is to determine the perspectives of individuals in a public education department and a public health department on the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students.

There are disparities in on-time high school completion rates among African American and Hispanic students when compared to Caucasian students. The persistence in disparities in on-time high school completion rates is displayed at Table 1. The original Table 1 listed the states in alphabetical order. The table was resorted to show the disparities in terms of on-time high school completion rates based on the African American student rates compared to the Caucasian rates. The overall United States average adjusted cohort graduation rate (ACGR) for

the 2013-14 school year was 82.3%. The Asian/Pacific Islander rate was 89.4%, the Caucasian rate was 87.2%, the Hispanic rate was 76.3%, the African American rate was 72.5%, and the American Indian/Alaska Native was 69.6% (NCHS, 2015).Overall, the African American rate was 14.7 percentage points less than the Caucasian rate, and for Hispanics, the rate was 10. 9 percentage points less than the Caucasian students. Several exceptions found in disparities were as follows: Montana, the Hispanic rate was 81%, the African American high school completion rate was 89% and for Caucasian students, the rate was 88.3%. In West Virginia, the high school completion rate was 79% for African American students, 89% for Hispanics, and 84.7% for Caucasian students.

Table 1

Public High School 4-Year Adjusted Cohort Graduation Rate (ACGR), by Race, Ethnicity, and Selected Demographics for the United States, the 50 States, and the District of Columbia: School Year 2013-14

State	Percent of students								
	Total	American Indian / Alaska Native	Asian / Pacific Islander	Hispanic	Black	White	Economically disadvantaged	Limited English proficiency	Students with disabilities
United States	**82.3**	**69.6** [1]	**89.4**	**76.3**	**72.5**	**87.2**	**74.6**	**62.6**	**63.1**
Nevada	70.0	52	83	64.6	53.9	76.9	63.6	29	27.6
District of Columbia	61.4	<>	<>	65	59.7	85	60.1	64	41
Oregon	72.0	54	83	65.0	60	74.3	64.2	52	51.1
Minnesota	81.2	51	81.7	63.2	60.4	86.3	65.9	63.7	58.4
New Mexico	68.5	61	84	66.9	62	74.7	62.3	63.9	56.5
Ohio	81.8	74	88	69.2	62.7	86.6	69.2	66	68.4
Michigan	78.6	65	88.7	68.8	64.5	82.9	65.6	68.2	55.1
New York	77.8	65	83.6	63.9	64.5	88.0	68.8	37.1	51.8

State	Total	American Indian / Alaska Native	Asian / Pacific Islander	Hispanic	Black	White	Economically disadvantaged	Limited English proficiency	Students with disabilities
Florida	76.1	74	89.2	75.0	64.7	81.7	67.8	55.8	55.1
Georgia	72.5	67	82.8	64.0	65.2	79.7	62.5	43.9	36.5
Alaska	71.1	55	74	70	66	78.5	59.6	32	42
Wisconsin	88.6	81	90	78.1	66.1	92.9	77.9	64	69.0
Louisiana	74.6	80	89	73	67.9	80.3	68.8	50	42.8

(continued)

Table 1. *Public High School 4-Year Adjusted Cohort Graduation Rate (ACGR), by Race, Ethnicity, and Selected Demographics for the United States, the 50 States, and the District of Columbia: School Year 2013-14* (continued

State	Percent of students								
	Total	American Indian / Alaska Native	Asian / Pacific Islander	Hispanic	Black	White	Economically disadvantaged	Limited English proficiency	Students with disabilities
California	81.0	71.0	91.8	77.0	68.0	88.0	76.0	65.0	62.0
Washington	78.2	57	84.4	67.5	68.0	80.9	66.8	53.8	55.8
Colorado	77.3	61	84	66.7	69.0	83.2	64.2	58.7	54.6
Utah	83.9	66	85	72.9	69	86.6	73.5	62	68.2
Wyoming	78.6	47	85	72	69	80.9	65	65	62
Arizona	75.7	62.7	83	70.3	71.0	82.3	69.9	18	63.3
Mississippi	77.6	66	89	80	71.5	84.0	70.9	67	28.1
Rhode Island	80.8	57	88	72	72	85.0	71.1	72	60
Pennsylvania	85.3	82	90.4	71.1	72.3	89.6	76.5	64.1	70.9
South Dakota	82.7	47	80	71	73	88.5	65	57	59
Missouri	87.3	83	90	80	74.8	90.4	80.4	64	75.3
Massachusetts	86.1	76	91.9	69.2	74.9	90.9	76.0	63.4	69.1
Idaho	77.3	56	79	70.3	75	79.2	71.3	75	59
Indiana	87.9	84	89	83.2	75.0	90.4	85.4	80	73.4
Vermont	87.8	>=50%	90	78	75	88.6	78	69	70
Oklahoma	82.7	82.4	88	77.6	75.7	84.8	78.2	59	77.2
Hawaii	81.8	72	82.8	76	76	80	77.6	53	59
North Dakota	87.2	66	85	74	76	90.2	72	64	70
South Carolina	80.1	74	88	77	76.0	82.8	72.5	73	43.2
Kansas	85.7	76	90	78.7	77	88.3	76.9	75	76.7

Illinois	86.0	82	94.1	81.3	77.2	90.1	78.5	71.7	71.8
Virginia	85.3	—	90.5	75.9	78.5	89.2	75.1	48.2	53.2
Connecticut	87.0	85	93	74.0	78.6	92.2	75.9	63	65.2
Tennessee	87.2	81	93	81.4	78.6	90.9	82.2	73	69.0
New Jersey	88.6	86	96.0	80.6	78.9	93.5	79.6	71.1	76.6

(continued)

Table 1. *Public High School 4-Year Adjusted Cohort Graduation Rate (ACGR), by Race,*

Ethnicity, and Selected Demographics for the United States, the 50 States, and the District of

Columbia: School Year 2013-14 (continued)

State	Percent of students								
	Total	American Indian / Alaska Native	Asian / Pacific Islander	Hispanic	Black	White	Economically disadvantaged	Limited English proficiency	Students with disabilities
Iowa	90.5	78	90	82	79	92.2	84.1	83	76.4
Maine	86.5	80	95	72	79	87.0	77.8	72	71
West Virginia	84.5	59	95	89	79	84.7	80.1	89	70.3
Kentucky	87.5	84	89	84	79.4	88.7	84.0	66	70.8
North Carolina	83.9	79	91	77.4	79.9	87.1	78.0	52	64.4
Maryland	86.4	87	94.9	77.5	80.5	91.9	77.8	54	63.5
Arkansas	86.9	86	85	84.5	81.0	89.3	82.7	84	83.1
Nebraska	89.7	69	78	82.8	81	92.8	82.4	60	72
Delaware	87.0	89	93	84	83	89.5	81.0	77	68
Alabama	86.3	88	91	85	83.8	87.8	81.5	67	64.4
New Hampshire	88.1	84	90	77	84	88.6	77.2	75	72
Texas	88.3	87	94.6	85.5	84.2	93.0	85.2	71.5	77.5
Montana	85.4	65	85	81	89	88.3	75.4	59	76

— Not available.

‹› Data were suppressed to protect the confidentiality of individual student data.

≥ Greater than or equal to. The estimate has been top coded to protect the confidentiality of individual student data.

[1]The United States 4-year ACGR for American Indian/Alaska Native students was estimated using both the reported 4-year ACGR data from 49 states and the District of Columbia and using imputed data for Virginia.

NOTE: The 4-year ACGR is the number of students who graduate in 4 years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class. From the beginning of 9th grade (or the earliest high school grade), students who are entering that grade for the first time form a cohort that is "adjusted" by adding any students who subsequently transfer into the cohort and subtracting any students who subsequently transfer out, emigrate to another country, or die. To protect the confidentiality of individual student data, ACGRs are shown at varying levels of precision depending on the size of the cohort population for each category cell. There are some differences in how states implemented the requirements for the ACGR, leading to the potential for differences across states in how the rates are calculated. This is particularly applicable to the population of children with disabilities. Black includes African American, Hispanic includes Latino, Asian/Pacific Islander includes Native Hawaiian or Another Pacific Islander, and American Indian includes Alaska Native. Race categories exclude Hispanic origin unless specified.

The disparities in on-time high school completion rates between African American and Hispanic students is an ongoing problem. After identifying in the literature the indicators that impact on -time high school completion such as parental involvement, school engagement or a sense of belonging, curriculum, and school size, Fitzgerald et al. (2012) examined the impact of school size as a contributing factor to disparities in high school completion rates between African American and Hispanic students when compared to Caucasian students in the state of Texas. The sample was limited to African American, Hispanic, and Caucasian students. The size for small schools was 327 students, for medium size, 328-1337, and for large high schools, 1338 and above. Archival data were examined for the 2008-2009, 2009-2010, and 2010-2011 school years, from the Academic Excellence Indicator System (AEIS).

Fitzgerald et al. (2012) hypothesized there was a relationship between the size of the high school and differences in high school completion between African American, Hispanic, and Caucasian students. Fitzgerald et al. found there were no differences in on-time high school completion rates in small schools and medium size school for the 2008-2009 and 2009-2010 school years; however, during the 2010-2011 school year, statistically significant differences in completion rates were found among the three groups in favor of Caucasian students. For all three years, Caucasian students had statistically significant higher completion rates than did African American and Hispanic students in large high schools. Specifically, for the 2010 -2011 school year, in small schools, Caucasian students had statistically significant higher completion rates

than African American and Hispanic students. In medium size schools, Caucasian students had statistically significant higher completion rates than African American and Hispanic students. Caucasian students had statistically significant higher completion rates than African American and Hispanic students in larger schools. Fitzgerald et al. observed that larger schools offered greater diversity of courses and resources, but at some time the school environment became impersonal and inefficient, and this led to discouragement in some students, particularly, for African American and Hispanic students. Fitzgerald et al. identified several limitations of this study as follows: (a) because of privacy rules certain values from AEIS had to be masked if individuals could potentially be identified, thus, eliminating some schools from the study; and (b) the challenge of measuring and interpreting individual characteristics that impact school success was a limitation. Fitzgerald et al. observed that the study added to the current discourse related to grade span configurations and completion rates. Previous research indicated that school success is not determined by school size alone, but other factors such as accessibility to resources in the community and at home. According to Fitzgerald et el. more research is needed to determine the socioeconomic factors that impact on-time high school completion. Fitzgerald et al. recommended that school leaders can take steps to increase the high school completion rates of all high school students in general and minority students in particular through teacher professional development and special program implementation.

Social Determinants of Health

SDOH are the conditions under which people live (Braverman, et al., 2011; Cohen, & Syme, 2013; DeMaio, et al., 2013). SDOH refer to an individual's employment, whether employed or not employed; whether the neighborhood, the schools attended, or the health care delivered is of high quality or poor quality; and whether a person has a supportive social network (Braverman et al., 2011; Cohen, & Syme, 2013; DeMaio et al., 2013). If these socioeconomic factors place an individual at risk for disease and illness, these SDOH negatively impact the individual, the community, and nation (Braverman et al., 2011; Cohen, & Syme, 2013; DeMaio et al.,).

Link and Phelan (1995) said SDOH were the fundamental causes of disease and it was imperative to view SDOH from this perspective. The authors argued that there were two frameworks that showed the relationship of SDOH, disease, and illness outcomes (Link & Phelan, 1995). The first is the need to view risk factors in terms of the context in which they occur (Link & Phelan). The second is to look at social conditions as a fundamental cause of disease (Link & Phelan). This approach provided a broader conceptual basis to explain health inequalities and health disparities. The social conditions are the distal factors that contribute to persistence of health inequalities and health disparities (Link & Phelan). Distal factors affect the health outcomes of individuals (Link & Phelan). They are different from proximal factors such as an individual who has high cholesterol that contributes to cardiovascular disease (Link & Phelan). Link and Phelan argued that both distal and proximal risk factors must be addressed so

that all segments of a society achieve healthier lives. The authors advocated for more attention to distal factors or the conditions under which we live.

A major catalyst for addressing SDOH evolved from studies about the social gradient or the social position of individuals and the influence on health and life expectancy. The social gradient provided an indicator for the relationship between health and socioeconomic factors and how these factors affect the health of populations (Marmot, 2006). The studies revealed that social position and status are associated with health status (Marmot). According to Marmot, the higher the social position, the health status was better in terms of life expectancy compared to an individual in a middle position, or lower position work occupation. Studies on the social gradient and an individual's social status, based on occupation, provided insight into SDOH and how they affected the health status of individuals. In addition, Brunner and Marmot (2006) used epidemiological findings to link the fight-or-flight response, acute and chronic disease, and stress reactivity, blood clotting system, inflammation, and immunity responses in human beings to SDOH and health outcomes. The information provided the foundation to address distal factors as contributors to the differences in the health status of individuals. These distal factors or social conditions are the basis of SDOH and the relationship to health outcomes.

Although SDOH are recognized as providing a framework for health policy and interventions, to address health disparities, there is concern about the use of SDOH as the basis for the investment of resources aimed at improving the health status of all segments of society. Preda and Voight (2015) raised questions about the basic assumptions of SDOH and the

application of SDOH to drive health policy and interventions to improve the health of the population. These authors agree with most of the literature that supports the use of SDOH as a framework to reduce and eliminate health inequalities and health disparities. Preda and Voight argued that the focus should be on social inequalities. More research is needed on the use of the SDOH framework in terms of its philosophical basis and arguments for improving the health status of the population (Preda & Voight, 2015). There is a need to focus on individual behaviors and the proximal risk factors that result in negative health outcomes. While there is support for the use of SDOH to drive health policy and interventions, there is a need to clarify the philosophical basis and assumptions used to explain the relationship between SDOH and health outcomes (Preda & Voight).

There are authors who agreed that there is a need to better understand the relationship between SDOH and health outcomes of a population. Daniels (2015) agreed with some aspects of the concerns raised by Preda and Voight (2015) but asserted there is justification to use the framework of SDOH to address health inequalities and health disparities. Also, Chapman (2015) challenged the assertions of Preda and Voight and argued that SDOH are related to health outcomes and should be used to improve the health of a population. Sheehan and Sheehan (2015) raised the issue of whether the SDOH framework is adequate to deal with the complexities of the relationship of health to socioeconomic factors. Sheehan and Sheehan argued that the issues raised by Preda and Voight do not undermine the support in the literature to use SDOH as the basis for addressing health inequalities and health disparities. According to Preda and Voight, it

is also necessary to clarify the philosophical basis and assumptions to ensure that interventions based on SDOH will improve the health status of all segments of society, the advantaged, and disadvantaged populations.

There are also concerns raised about whether various stakeholders understand SDOH and the relationship to health outcomes. Fielding et al. (2011) argued that it is necessary to understand SDOH in terms of health policy and decision making about health prevention and promotion activities, aimed at improving the health status of the population. These authors asserted that there is a lack of a shared worldview of what is attributable to population-based health by federal state, local, and private sectors (Fielding et al., 2011). There is a need for increased public health literacy on SDOH and the impact on health status (Fielding et al.). As stakeholders gain more knowledge and understanding about SDOH, there will be a focus on addressing health as it relates to education and other non-health factors that affect health outcomes.

The political will of a society is important to the use of SDOH as a framework for addressing health inequalities and disparities (Fielding et al., 2011). It is imperative to understand SDOH and the impact on health status by federal, state, local, and private sector individuals. It is important to achieve a consensus about the use of an SDOH model for health policy decisions and interventions. Fielding et al. said that increasing public health literacy of key stakeholders and gaining public support are vital to implementing the SDOH model aimed at improving the health status of all segments of the population.

The SDOH model is incorporated into Healthy People 2020, health reform in the United States, and globally. Fielding, et al. (2012) discussed the SDOH model based on health reform that was introduced in the Affordable Care Act of 2010. The authors highlighted specific Healthy People 2020 goals and targets supported in the Affordable Care Act. The creation of the National Prevention, Health Promotion, and Public Health Council (NPHPPHC) came about because of the Affordable Care Act (Fielding, et al., 2012). The goal of the Secretary's Advisory Council was to address health issues based on the SDOH model and to use a multisector approach to address health issues. SDOH model is used for health policy and intervention as outlined in Healthy People 2020 and health reform that is part of the Affordable Care Act of 2010.

In summary, SDOH model serves as the basis for health policy decision making, interventions that foster health prevention; and promotion aimed at improving the health status of the United States population. Koh, et al. (2011) advocated the need to look at new ways to address health inequalities and health disparities. AH-5.1 represents a new approach in health prevention and promotion that is critical to improving the health status of the adolescent population. The following section presents the results of a review of articles and studies that show the association between education and health, and how these two factors impact health status.

The Relationship of Education to Health

The rationale for selecting individuals from a public education department and a public health department is based on their representation of the two concepts of education and health

and how they are related. The interrelationship of education and health is recognized as an important factor in health outcomes. The reasons adolescents drop out of high school are complex. Health is related to factors such as poor nutrition, substance abuse, and unintended pregnancies (Allensworth et al., 2011). Bash (2011) identified five casual pathways that present barriers to the ability to learn: (a) sensory perceptions, (b) the ability to learn and understand, (c) ability to connect and engage with individuals, (d) absenteeism, and (e) dropping out of school. Interventions in these areas are critical to reduce the health issues that children and youth experience so that learning can occur in the elementary and secondary schools (Bash, 2011). Bradley and Green (2013) addressed the interrelationship of education and health by raising the issue about whether health and education agencies in the United States share responsibilities for academic achievement and health?

Bradley and Green (2013) conducted a review of 25 years of peer-reviewed articles for the period 1985-2011. The authors concluded that there was statistically significant evidence-based research that showed the relationship between six identified health risk behaviors and academic achievement by adolescents. The health risk behaviors included: (a) violence, (b) tobacco use, (c) alcohol and other drug-related behaviors, (d) sexual behaviors, (e) physical inactivity, and (f) nutrition (Bradley & Green, 2013). The findings supported a correlation between these six health risk behaviors and educational attainment, and not a cause and effect relationship (Bradley & Green, 2013). Cohen and Syme (2013) argued that educational achievement was a recognized SDOH, and the quality of education from pre-school,

kindergarten through high school impacts the health of an individual throughout life. Albert and Davia (2010) said it is also important that we look at the relationship of education and health through an interdisciplinary process. The aim of this study is to gain an understanding of the views of individuals in a public education department and public health department on the use of collaboration as a means to improve on-time high school graduation rates of African American and Hispanic students when compared to Caucasian students.

In summary, the interrelationship of education and health is found in the literature in terms of educational attainment and health outcomes of children and youth. The relationship between education and health are complex. Many barriers to educational attainment, particularly the completion of high school, impact the health status of individuals. The education and health sectors, working together, are critical to addressing health problems experienced by children and youth in the United States.

In addition, the interrelationship of education and health was shown in terms of the number of deaths that are attributable to social factors, or the conditions under which people live. Galea et al. (2011) conducted a study to estimate the number of deaths attributable to social factors in the United States. The authors estimated the number of deaths due to individual social factors, which included: education, poverty, health insurance status, employment status, job stress, social support, racism or discrimination, housing conditions, and early childhood stressors. The area level social factors included: area-level poverty, income inequality,

deterioration of the built environment, racial segregation, crime and violence, and if there were open or green spaces (Galea et al., 2011).

Galea et al. (2011) estimated that approximately 245,000 deaths in the United States, in 2000, were attributable to low education, or less than high school completion; 133,000 to poverty; 162,000 to low social support; 39,000 to area level poverty; 119,000 to income inequality; and 176,000 to racial segregation. Galea et al. found that social causes of death could be linked to death as physical and behavioral conditions are associated with death The authors acknowledged limitations to this meta-analysis study, which included the following: (a) small sample sizes, (b)some social factors were not included, (for example, stress processes; assumptions based on the methodology of the study); and (c) the study was limited to structural social factors based on individual experiences. Despite the limitations, Galea et al. argued that there is a need for more public health efforts to address social factors. This approach broadens the perspective for public health policy and intervention aimed at the reduction of the illness and disease burden of the United States.

Dupre and George (2011) discussed the relationship between education and health in terms of individuals who are disadvantaged and able to sustain exceptional health in later life. The research by Dupre and George provided insight on experiences of individuals with low education (less than high school) who achieved good health, in later life, despite social disadvantages, when compared to individuals with higher education and better socioeconomic resources. The authors research was one of the first large scale studies aimed at the identification

of factors that allowed some individuals to experience exceptional health outcomes even though they experienced a life- time of low social status (Dupre & George, 2011).

Dupre and George (2011) examined four elements of protective factors: (a) family and religion, (b) socioeconomic resources, (c) health behaviors, and (d) psychological and biological attributes The results of the research revealed that exceptional health among the disadvantaged varied regarding the four protective elements (Dupre & George, 2011). From an overall perspective, the authors found that low educated men and women generally lacked the resources to sustain good health later in life (Dupre & George, 2011). This study was an initial effort to understand why some individuals can remain healthy through old age (Dupre & George, 2011). The study was an attempt to research an area often ignored in the face of theories that showed that socioeconomic factors are strongly linked to health and well-being. The authors used low education as the independent variable to provide insight that challenges the fundamental cause theory and the theories based on the impact of the cumulative disadvantage theory, which explains health disparities in terms of comparing individuals with high socioeconomic status and low economic status, and how the latter experience more morbidity and mortality because of the impact of a lifetime of low social status (Dupre & George, 2011). Although the research by Dupre and George (2011) found mixed results about the contribution of factors that provided protective coverage and sustained good health in disadvantaged individuals, the study served to provide information about an area in research that is overlooked or ignored by researchers who conduct studies on the relationship of socioeconomic factors and health outcomes.

Several authors used other means to show the relationship of education to health

outcomes by an examination of the increasing value of education to health outcomes over time.

The health benefits related to increased education in the United States have expanded (Goldman

& Smith, 2011). Goldman and Smith (2011) used the United States National Health Interview

Surveys (NHIS) to document disease prevalence. The samples were limited to non-Hispanic

Whites ages 40-64, African Americans, and Hispanics who experience disproportionally high

numbers of low education in the United States, less than a high school education, when

compared to Caucasians (Goldman & Smith, 2011). Goldman and Smith found that education is

a strong social factor that impacted health status over the past thirty years. Using that same time

frame, the researchers found that five major chronic conditions increased sharply for the least

educated when compared to the more educated (Goldman & Smith, 2011). This study showed

the relationship of education and health in terms of linking the increasing value of education to

health outcomes. Chronic conditions such as arthritis, diabetes, heart disease, hypertension, and

lung disease were linked to individuals with less education and who reported themselves in fair

to poor health over the last three decades when compared to individuals with higher education

(Goldman & Smith, 2011).

Hass and Fosse (2008) conducted a study to address the gaps in the literature concerning

the association of education and health by an examination of the academic and psychosocial

mechanisms by which poor health may impact the educational achievements of adolescents. The

study found that males, non-Hispanic blacks, and Hispanics are less likely to complete high

school because of poor health (Hass & Fosse, 2008). This study is one of numerous studies that show the link between education and health. Health disparities continued despite interventions aimed at reducing the disparities. The persistence of the health disparities is attributable to the assumption that individuals with more education are more likely to take advantages of health information and technology aimed at increasing life expectancy when compared with individuals with less education (Hass & Fosse, 2008).

Olshansky et al. (2012) examined the continued divide among racial and ethnic subgroups in health disparities that have produced two Americas because of levels of education and the social economic status of individuals, and the relationship to health outcomes. The authors conducted a study aimed at providing current estimates of the impact of race and education by comparing the past estimates with present estimates. Olshanksy et al. found that United States citizens showed an increase in life expectancy at birth over the last half century. There is still persistence in health disparities and life expectancy among racial and ethnic subgroups in our society (Olshansky et al., 2012). The authors also found that twenty years ago a college education was a good indicator of increased longevity; today, the absence of a college education impacts whites in a negative way in terms of decreased life expectancy, particularly, those whites at the lowest level of education, that is, less than a high school education (Olshansky et al., 2012).

Thus, all groups in the United States experience a decrease in longevity with less than a high school education. Nonetheless, the authors found that if advances in health and longevity

continue that the survival gap between the two Americas could widen (Olshansky et al., 2012). The authors argued that the United States approach of having policies that stress the need for lifelong learning for all individuals is a means to increase the opportunities for all Americans to live longer (Olshansky et al., 2012). As evidenced by the literature review, there are numerous articles that showed the relationship of education to heath, and the importance of education to health outcomes. This subsection on the relationship of education and health will conclude with a discussion on research efforts aimed at showing a causal relationship between education and health outcomes.

It is also important to understand the relationship of education and health in terms of a cause and effect framework. According to Smith et al. (2015), there are many dimensions to education, for example, individuals who are high school and college graduates and have more access to material benefits such as occupation, income, and access to health care. Smith et al. (2015) said increased education leads to a better understanding of risk factors and how to reduce risk factors. A better understanding of the cause and effect relationship of education to health can also provide clarity for policy development and interventions aimed at improving the health of all segments of a population. Smith et al. presented an approach to understanding the causal pathways of the relationship between education and health as a result of their meta-analysis research study. Smith et al. argued that the causal relationship could be viewed from the perspective of the epidemiological transition (ET) that is experienced by developed and developing countries. For this study, Smith et al. focused on the United States, which is in the

advanced stage of ET, i.e. chronic diseases are a major disease burden having evolved from

pestilence, famine, receding pandemics, to chronic and man-made diseases, and delayed chronic

diseases.

Using ET as the contextual framework, Smith et al. (2015) described their proposal of the

dynamics of the causal relationship between education and health using a hypothetical

population education transition (PET) curve. According to Smith et al, diagrammatically, this

curve depicts the direction of the causal relationship between education and health from two

directions depending on the education gradient. Smith et al. said in the United States before the

1960s, education served as a risk factor early in the ET. For example, for college students who

felt that smoking was okay, as they received more accurate information about the negative

aspects and health consequences of smoking, and because they were better educated, they could

take advantage of the information and change their behaviors to reduce smoking (Smith et al.,

2015). According to Smith et al., education served as a social vaccine, a protective factor, and

not as a risk factor. The meta-analysis study, a first study of this nature provided insight that the

education and health relationship did not go in one direction but in two directions, that is,

education served as a risk factor and as a social vaccine (Smith et al., 2015)

In addition to the study by Smith et al., other researchers used the newer approach of

examining the causal relationship between education and health by answering the question,

under which conditions is there evidence of a cause and effect relationship between education

and health? This approach was used because of the difficulties in showing a direct relationship

between education and health. Hayward et al. (2015) showed that individuals with more education were better able to benefit from technological advances. They could use the new medical advances aimed at improving their health and longevity when compared to individuals with less education. These researchers presented a conceptual approach by looking at societal changes from a macro-level. As a result of their review of the literature, Hayward et al. found that a combined credentialist-human capital model was the best functional form for explaining the association between education and health. The researchers found a reduction in mortality with 12 years of education, which reflected that high school graduation provided increased opportunities for reducing mortality risks. Also, individuals with additional education could take advantage of medical advances and new information about health risks. Machenback et al. (2015) assessed the generalizability of the United States studies that addressed the cause and effect relationship of education and health and conducted a study to test the fundamental cause theory (FCT) previously discussed. Machenback et al. compared inequalities for 19 European countries relative to 18 preventable and 6 non-preventable diseases. The researchers found that the degree of association between education and health was variable depending on the causes of death and the population reviewed.

The studies discussed in the above paragraphs aimed to address the casual relationship between education and health in terms of the context presented based on differences in time, location, and populations. This approach was used to better understand the relationship between education and health and the impact on health and longevity of populations. Montez and

Friedman (2015) summarized the finding of the new research approach to understand the relationship between education and health. Montez and Friedman found that the causal relationship is a factor of the context, or time, place, and populations where the studies were conducted. These findings help us to explain the circumstances under which education impacts health in terms of improved health and longevity for populations.

In summary, numerous studies provided evidence in the literature of the influence of the link between education and health. There is an association between educational attainment and health as it relates to the reduction of chronic diseases and increased longevity. High school completion represents a beginning step to gaining further knowledge that would assist individuals on how to use and understand health information aimed at healthier lifestyles. In addition, recent studies have attempted to show a causal relationship between education and health. The causal relationship between education and health remains a challenge because of the multiple dimensions of education and mechanisms that show the possible causal link between education and health. More research is needed in this area that address the question under what conditions is there a causal relationship between education and health? Currently, researchers attempt to show causality by an examination of the context in which a study is conducted in terms of the time, location, and the population.

Summary and Transition

The Healthy People 2020 target and objective to improve on-time high school completion rates for high school students in the United States provided a catalyst for the education and

health sectors to collaborate. The literature review provided support for the use of collaboration to address complex problems. The major concepts of the literature review included the following: collaboration, Healthy People initiative, Healthy People 2020, SDOH, and the relationship between education and health. These concepts represented the rationale for the conduct of the study. The Healthy People initiative was implemented in 1980 to monitor and tract the health status of the United States population. Healthy People 2020 ushered in a new approach to include SDOH. AH-5.1 was identified as an LHI. The literature review showed the association between education and health and the impact on the health of an individual.

There is need to fill in a gap in the literature on the perspectives of individuals in a public education department and a public health department on the use of collaboration as a means to reduce or eliminate disparities in on-time high school completion rates. I used a multiple case study approach to obtain in-depth insights on the use of collaboration to improve on-time high school completion rates from individuals in a public education department and health department. The research approach was designed to obtain information about the gap in the literature on the use of collaboration from participants who traditionally work independently of each other. The methods section, Chapter 3 provided information about the process and procedures for the conduct of this study.

Chapter 3: Research Method

The purpose of this qualitative research inquiry was to use the multiple case study approach to examine how individuals in a public education department and health department viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. This qualitative inquiry included a collective case study approach, which provided the perspectives from two different public sectors on the use of collaboration to improve on-time high school completion rates. The participants for this study included managerial, supervisory, consultant, and professional staff from a department of public education and health department from the same state. Chapter 3 includes a description of the research design and rationale, role of the researcher, methodology, instrumentation, procedures for a pilot study, data analysis plan, issues of trustworthiness, and ethical procedures.

Research Design and Rationale

The research questions were as follows:

RQ1: How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

RQ2: What is the understanding and knowledge that individuals in the public education and public health sectors have about interagency collaboration?

RQ3: What are the barriers to collaboration between individuals in the public education and public sectors to improve on-time high school completion rates for African American and Hispanic students?

RQ4: How do individuals in the public education and health sectors view an ethical basis found in John Rawls's theory of justice and Amartya Sen's capability approach as reasons to use collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Central Concepts and Phenomenon of the Study

The central concept and phenomenon of the study was how managers, supervisors, consultants, and professional staff in a public education department and health department viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students when compared to Caucasian students. The multiple case study approach was selected because it provided an opportunity to obtain insights and understanding from individuals who work in a public education and health department. Essentially, two independent groups, individuals from a public education department and health department were the two cases for this study. Creswell (2013, pp. 97-102) described a case study as follows: (a) researcher explores a real life situation; (b) includes a bounded system, a case or multiple cases that are bounded by time and place; (c) in-depth collection of data from multiple sources; (d) analyses of in-depth descriptions within each case and a cross-case analysis between each case; (e)identification of themes based on the analyses; and (f) results or conclusions are not

generalizable but expressed in terms of lessons learned from the themes generated from the analyses. The multiple case study was the best approach because I aimed to determine how two different groups of people (cases) viewed collaboration, or their working relationship to improve on-time high school completion rates for African American and Hispanic students.

Role of the Researcher

My role as the researcher in this study was to gather information from the participants who volunteered for this study and agreed to participate in telephone interviews, present and analyze their in-depth responses to the research questions, and objectively report the findings of this research study. I practiced self-awareness to ensure that I did not allow preconceived ideas about the participants. I strived to accept information from the participants and had no relationship with the participants. I had an interest in improving on-time high school completion rates for African American and Hispanic students when compared to Caucasian students. I believe that African American and Hispanic students could achieve on-time high school completion rates that are similar to Caucasian students if they received targeted interventions based on collaborative efforts from individuals in the public education and health sectors. I am African American and a female registered nurse. I managed any biases by acknowledging them and not letting them interfere with the development of the interview protocol, interview questions, analysis, conclusions, and recommendations that emerged from this study. The management of my biases is discussed under the section on evidence of trustworthiness in this Chapter.

When I collected data and conducted data analysis, I practiced self-awareness in order to not allow my biases, values, and experiences influence data collection and analysis activities. I did not know the participants in this study personally or professionally. I did not conduct the study within my own work environment. I had no conflicts of interest. There was no issue of a power differential. There were no incentives for the study other than it was a requirement for completing the dissertation. I kept a written journal of my experiences regarding participant recruitment, data collection, and data analysis. The journal provided a means to monitor and track my actions throughout the study. This afforded me the opportunity to monitor and reduce or eliminate my biases.

Methodology

Participant Selection Logic

The study population included managers, supervisors, consultant, and professional staff in a department of public education and health department. I used a purposive sampling strategy aimed at the selection of participants who had an interest in improving on-time high school completion rates. The purposive sampling approach provided the opportunity to select participants who had experience in working in a public education department and health department. Creswell (2013, p. 156) described purposeful sampling as the selection of participants who can understand and provide information on the research problem and focus of the study. The participants for this study may or may not be involved in collaborative efforts. It was anticipated that ten participants each from a public education department and health

department would volunteer to participate in the study and that would adequately provide a saturation point in which the views presented would start to be repeated. One individual was identified in a public education department and health department of the selected state, who performed as partners and signed a letter of cooperation to participate in the study, in terms of the recruitment of volunteers for the study (Appendix A). The partners distributed the recruitment flyer in their respective agencies (Appendix B). The flyer included a request for any volunteers who wished to participate in the study to contact me.

Inclusion and Exclusion Criteria for State Selection

The selection of a state included a state that experienced low African American and Hispanic on-time high school completion rates when compared to Caucasian students, as indicated in Table 1, in the literature review section at Chapter 2. Most states, including the District of Columbia experienced disparities in on-time high school graduation rates between African American and Hispanic students when compared to Caucasian students. The excluded states were Montana and West Virginia. Montana showed, for the most part, no disparity between African American, Hispanic, and Caucasian students. The African American high school completion rate was 89% in Montana, for Hispanics, 81%, and for Caucasians, the rate was 88.3%. West Virginia's high school completion rate for African American students was 79%, the Hispanic rate was 89%, and the Caucasian rate was 84.7%. (NCES, 2015).

Instrumentation

A preexisting survey questionnaire that contained both open and closed questions on the use of collaboration by a range of organizations was used to develop some of the ideas for the demographic questionnaire and interview protocol for this study (Appendices E and F). The owners of the questionnaire provided written permission for the use and modification of their unpublished survey instrument in July 2016 (Appendix F). The source was the Federal Reserve Bank of Minneapolis in partnership with Wilder Research, who developed a survey instrument, that included both closed and open questions, for their study on cross-sector collaboration to build healthier communities (Rausch & Mattessich, 2013). I developed an interview protocol and accompanying interview questions for this study, which was used to collect data (Appendix F). A structured interview process was employed and included ten open-ended questions that elicited in-depth responses to the research questions.

Procedures for Pilot Study

The pilot study was conducted in a state located in the Northeastern part of the United States, the researcher's home state. I contacted the department of education and public health department, and each department provided a contact person who agreed to participate in the pilot study on behalf of the state. The state representative identified participants for the pilot study. The purpose of the pilot study was to obtain suggestions to refine the interview protocol and interview questions. Creswell (2013, 165) said that the interview questions and procedures are refined through pilot testing. The pilot test was performed to ensure that the interview protocol

and questions related to the research questions were understood by the participants in the study. I was able to apply the procedures for the study such as discussing the interview protocol, explaining the consent form, and conducting interviews.

Procedures for Recruitment, Participation, and Data Collection

Procedures for Recruitment and Participation

The procedures for recruitment and participation were as follows:

- The contact information for participants was obtained based on the responses to the recruitment flyer that was posted by the participating entities.

- The initial contact with participants was via a telephone or e-mail note from the participants.

- The informed consent procedures included a discussion of the scope and purpose of the study. I explained the role of the participant and requested the participant to repeat to me his/her understanding of the consent form and to ask questions. I explained that participation was voluntary and as a participant, the individual could with draw from the study at any time. I asked the participant if I could send a separate form via e-mail at the end of the interview to obtain demographic data: age, sex, race/ethnicity, occupation, how long they have been in the current position, their educational attainment, and location, and state entity, and where they work. Prior to the conduct of the interview, I sent the participant the consent form that outlined the above as well as to include a statement that the confidentiality of the participant and the interview responses would be maintained by

the use of a special name designation or number. I ensured the participant that his/her privacy was confidential and would be protected.

- I conducted the pilot study as described above.

- I conducted the interview using a standard open-ended interview questionnaire. I explained that follow up would include sending the participant a transcript of the interview questions and requesting the participant to review for modifications, additions, and accuracy concerning the information obtained.

- For contact purposes, I requested, if the participants were willing, to share both his/her telephone number and e-mail address with me.

- I asked the participating entities and participants if they wanted the results of the study and that I would send them the results as requested via e-mail. Data collection occurred over a period of seven months. The follow up plan, if recruitment resulted in too few participants, was to identify back up states to recruit the additional needed participants from other states that showed disparities in on-time high school completion rates.

- All information was kept confidential using an identifier such as a different name or code number for the state entity and participants.

- Participants exited the study at the time they completed the review and approval of the transcribed transcript and when they informed me whether or not they would like to receive the study results.

Data Collection

I collected data through the conduct of telephone interviews, and I used a smartphone tape recorder to record the responses to the interview questions. I manually transcribed the recorded interviews. The data collection tool was the interview protocol and the research interview question. I collected data for a period of seven months. Participants exited the study when they completed the review of the individual transcribed interview with their comments and a notation of the accuracy of the interview responses. At that time, I reminded participants that they can receive the results of the study based on an oral or written request. I thanked the individual participant for participation and contribution to the study.

Data Analysis Plan

I performed the data analysis as follows: Data analysis was the preparation and organization of the data for analysis about how individuals in a public education department and health department viewed the use of collaboration to improve on-time high school completion rates for African American and Hispanic students when compared to Caucasian students. I carefully reviewed each participant's transcript. According to Creswell (2013, pp. 179-187), the transcripts are reviewed to obtain an in-depth understanding of what the participants stated during the interviews. The data were classified and coded based on what emerged. Next, I identified categories and themes. From the coding, I developed categories that led to the themes, the interpretation of the data or text produced by the participants of the study. Thus, I used the statements of the participants as the critical basis for the data analysis. The data were recorded,

retrieved, and stored manually. There were no individual outlier cases. The data analyses included a within case analysis for each case, and a cross-case analysis between the two cases. The two cases included a department of public education and a public health department within the same state.

Issues of Trustworthiness

The concepts of credibility, transferability, dependability, and confirmability were used to establish the basis for the validity and accuracy of the study findings as follows:

Credibility

Credibility or internal validity refers to triangulation, saturation, member checks, and reflexivity (Houghton, Casey, Shaw, & Murphy, 2013). Triangulation involved obtaining information from multiple sources and conducting an analysis to determine if the information was corroborated or not corroborated and provided insight to the phenomenon under study. Creswell (2013, p. 251) said that triangulation involved the process of corroborating evidence from different sources in order to shed light on a theme or perspective. Interviews were conducted via telephone at the convenience of the participants. Multiple sources were used to obtain information on how individuals in a public education department and health department viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The multiple sources included a review of articles, newspaper articles, and the organizational charts of a public education department and health department. According to Creswell (2013, p. 157), saturation was the process to determine that

the results of the interviews showed similar responses and that the same pattern of thoughts

continued to be expressed by the participants. Saturation was ensured by reviewing the

transcripts to determine that the in-depth review of the transcripts contained similar ideas and

thoughts. Member checking referred to the reviews by the participants of the transcribed

interviews to ensure the accuracy of the data collected. Creswell (2013, p. 252& p. 257)

indicated that member checks involve taking data, analyses, and conclusions back to the

participants so that they can judge the accuracy and credibility of their responses. I sent the

completed transcribed interviews to the interviewee to obtain input about the accuracy of the

information from the interview. Reflexivity was the ongoing assessment of my biases and values

during the phases of the study, for example, the conduct of the interviews, the transcription of the

interviews, the analysis, and conclusions reached about the findings of the research study

(Creswell, 2013, pp. 216-217). According to Creswell (2013, p. 257), the concept of reflexivity

refers to the researcher's conscious awareness of his/her biases. In order to address my biases, I

reviewed written materials from the data collection and accepted the information from the

participants, as presented to me. I applied the concept of reflexivity to ensure that my biases were

identified, evaluated, and addressed in an ongoing manner. I accomplished this by keeping

journal notes or an audit trail of my actions and interactions with the participants. I had

discussions with the Chair of my dissertation about problems that surfaced during the interview

process.

Transferability

According to Houghton et al. (2013), transferability or external validity concerned the ability to apply the research findings to other similar cases such as other public education departments and health. According to Yin (2018, pp. 194-199), transferability referred to the ability to apply the findings to other situations in terms of lessons learned. These are called analytic generalizations. Other states may be able to use the results of the study to assess and improve collaborative efforts between a department of public education and health department as a means to improve on-time high school completion rates for African American and Hispanic students, for other ethnic and racial minorities, and low income students.

Dependability

According to Houghton et al. (2013), dependability referred to the reliability of the data collection and assurance that the information was accurate and consistently obtained. Interviews were conducted via telephone at the convenience of the participants. The interviews were expected to last one hour and audiotaped. Dependability was established through an audit trail or record of how participants were selected, the development and implementation of an interview protocol, interview questions that were applied consistently, a review of the analysis, how conclusions were reached, and how biases of the researcher were managed According to Houghton et al. (2013), dependability includes keeping records or an audit trail of decisions made during the data collection, and analysis stages to ensure that procedures were consistently followed. I kept a record of my action steps and reviewed them to make sure I followed the

requirements for obtaining accurate information and interpretations of the information in an objective manner.

Confirmability

Confirmability referred to the objectivity of the research study in terms of the identification of the problem, the development of the research questions, the interview protocol and interview questions, the conduct of the interview, the assurances that the interviewees responses were accepted, and the ongoing review and management of my biases as the researcher to ensure that any biases did not impact the various stages of the conduct of the research study. According to Houghton et al. (2013) confirmability is obtained through the documentation of the ongoing audit trail of decisions made during the data collection and analysis stage of the study. The review of the documented audit trail is to ensure that procedures were followed in a consistent manner. The audit trail documentation provides information on self-regulation and self-awareness of any biases that need to be addressed and eliminated.

<div align="center">

Ethical Procedures

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I obtained agreements or letters of partnership cooperation from a public education department and health department for participation in the study. I identified a partner from each entity who agreed to participate in the study. I included the letters in the Institutional Review Board (IRB) application. I included in the recruitment materials the following information: (a) introduction to the study, (b) information on informed consent, (c) the study procedures such as interviews and follow up, (d) information about the ability to exit the study at any time, (e)

information about how to obtain the study results, and (f) information about how the participants' confidentiality was protected. I used numbers to identify the participants to protect their confidentiality. The data was kept in a storage cabinet at my place of residence. I was the only person who had access to the key for the locked cabinet. The data access was limited to me as the researcher and my Committee Chair. As the researcher, I had no interest in the study other than to obtain an understanding and thoughts of the participants of the study on how they viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students when compared to Caucasian students. The study was a requirement for completion of my University program. The proposal for my study was approved by the Walden Institutional Review Board (IRB) under approval number 09-20-17-0353712.

Summary

The main points of Chapter 3 included a restatement of the research questions, research design and rationale for a multiple case study, the central concept or phenomenon of the study; the role of the researcher, and the research methodology. The procedures for the pilot study, recruitment of participants, data collection, and analyses were discussed. I discussed issues of trustworthiness which included the following: (a) credibility, (b) transferability, (c) dependability, and (e) confirmability. Finally, I discussed the ethical procedures for this study. The next chapter, Chapter 4 included an overview of the study; any impact that the setting may or may not have on the interpretation of the results of the study; participant demographics and

characteristics that were important to the study; data collection and analyses; evidence that

supported trustworthiness; and the study results.

Chapter 4: Results

The purpose of this multiple case study was to examine the perspectives of individuals in a public education department and health department regarding the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The cases were represented by individuals from a department of public education and a public health department within the same state. The individuals participating from each department included managers, supervisors, consultants, and professional staff.

The research questions are as follows:

RQ1: How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school graduation completion rates for African American and Hispanic students?

RQ2: What is the understanding and knowledge individuals in the public education and public health sectors have about interagency collaboration?

RQ3: What are the barriers to collaboration between individuals in the public education and public health sectors to improve on-time high school completion rates for African American and Hispanic students?

RQ4: How do individuals in the public education and public health sectors view an ethical basis found in John Rawls's theory of justice and Amartya Sen's capability approach as reasons to use collaboration as a means to improve on-time high school completion rates for African American and Hispanic students? Chapter 4 includes a discussion of the pilot study, the

setting in which the study was conducted, the demographics of the study's participants, data collection procedures, data analysis, evidence of trustworthiness, and the study results.

Pilot Study

The pilot study was conducted in a state located in the Northeastern section of the United States. The pilot study was conducted from September 2017 to October 2017. Two individuals participated from the department of education and one individual from the department of public health, in the same state. The individuals from each of the departments were in managerial or supervisory positions. The individuals from the department of education included a manager who was responsible for school improvement and a chief/supervisor in a bureau. Both individuals focused on school issues that impacted students, including African American and Hispanic students. The manager from the department of public health also served as the lead for an interagency group including 13 state agencies with a goal to reduce health inequities. The purpose of the pilot study was to gain insight about the purpose of the study and all procedures including the application of the consent form and the review and application of the interview questions and responses. The pilot test did not result in any major changes to the study's purposes, procedures, or processes.

Setting for the Study

The setting for the study was a department of education and a department of public health from the same state located in the Southwestern part of the United States. Much effort and time was devoted to finding a state to participate where the education department and public health

department were from the same state and had people willing to volunteer to participate. It was difficult obtaining public education and health departments from the same state who would agree to participate in the study. In several instances, either the education or the public health department would agree to participate, but not from the same state. This study would not have been possible without finding one state to volunteer in which a department of education and a department of public health from the same state agreed to participate. Also, it was difficult to get states to participate, including the District of Columbia, because of a lack of interest or other competing state priorities. A partner was identified from a department of public education and health who worked with the researcher to post the recruitment flyer, recruit participants for the study throughout their respective departments, and assist in follow up or addressing questions. Individuals volunteered to participate in the study from two units in the department of education and three units from the department of public health.

Demographics

A demographic questionnaire was forwarded to the participants in the study. One individual from the department of education and one individual from the department of public health did not return their completed questionnaires. The total number of participants who returned completed demographic information for the study was nine. The demographic information for a department of education and a department of public health are discussed separately.

Department of Education

Seven individuals participated in the study from the department of education. One participant did not return the completed questionnaire; thus, the demographics apply to six participants. All six participants were Caucasian, there was one male and five females. The average age range was 46-56. Two participants had over 16 years of experience, three participants were employed between 1-3 years, and one participant was employed 3-6 years. I omitted the occupations of the participants who returned the completed questionnaire because that information would identify the participant. All six participants had graduate-level education. Five of six participants had experience in collaborating with the public health department.

Department of Public Health

Four individuals participated in the study from the department of public health. One participant did not return the completed demographic questionnaire. Thus, the demographic information applied to three participants. Two of the participants were Caucasians and one participant an African American. There was one male participant and two female participants. One participant received an undergraduate degree and two participants had graduate level degrees. I omitted the specific occupations because that information would identify the participants. The participants had some collaboration with the department of education such as public health surveillance activities.

Data Collection

Eleven participants, seven from a department of education and four from a department of public health provided responses to the ten questions of the interview protocol and questionnaire (Appendix E). Initially, I anticipated that I would recruit ten individuals each from a department of public education and department of public health. I conducted telephone interviews with all participants, who were in a private office at their place of employment and I was in my place of residence. Each participant was interviewed once with each interview lasting from 20-30 minutes. The interviews took place between November 2017 and June 2018. The data were recorded using a smartphone tape recorder. There were no variations in data collection from the plan presented in Chapter 3 except that the consent to participate and carry out the interview were conducted at the same time instead of different times at the request and convenience of the participants.

An unusual circumstance was encountered the week of April 23, 2018. Although the screening criteria were met, two participants from the department of public health raised questions about whether they were qualified to participate in the study after reviewing their interview transcripts. These two participants requested in writing not to participate in the study. Therefore, their data were removed from the study. In addition, two participants who worked in the department of public health did not do the member check of their transcripts. One of these participants was removed from the study because the e-mail statement of I consent was not

mailed back to me as requested after the interview. The other participant was retained in the study.

Data Analysis

The process I used to move inductively from coded units to larger units, including categories and themes began by ensuring my familiarity with the contents of the participants' in-depth responses by transcribing the interviews manually. This provided an opportunity to review the transcripts numerous times before sending them to the participants for their review, comments, deletions, and additions to their responses. I also reread the transcripts several times before starting the initial identification of specific coding labels for the responses to each of the ten interview questions. Each participant's transcript was analyzed and summarized, and I was able to complete the identification of special codes. According to Saldana (2016, pp.1-42), codes or brief phrases describe the statements made by participants. Patterns emerged from arranging the codes in a systematic order. After the coding, I was able to develop categories, and from the categories, themes surfaced that represented the central ideas of statements made by participants According to Saldana (2016, p. 199), themes are an expansion of phrases or sentences that identifies the meaning of the statements by participants. I identified approximately 300 initial codes from the statements made by the participants from the department of education. I identified approximately 194 initial codes from the participants from the department of public health. The coding, development of categories, and themes was an iterative process as I went back and forth several times to review and refine the initial codes, categories and themes. This

process led to the selection of codes and categories found at Tables 2, 3, and 4. For Table 4, the cross-case analysis, I selected the codes for the analysis. I used codes from the two cases (Tables 2 and 3), but I did not use all the codes from each case in order to avoid a lengthy and cumbersome table. The narrative discussion for Tables 2, 3, and 4 is presented under the results section of Chapter 4. Table 2 contains the codes, categories, and themes that emerged from the participants from the department of education.

Table 2

Department of Education: Codes, Categories, and Themes

Codes	Categories	Themes
Important Essential Necessary	Use of collaboration	Importance and use of collaboration
Important Essential Makes sense	Focus on African American and Hispanic Students	Collaboration targeted to African American and Hispanic students to improve on- time high school completion
Great hope and excitement Sadness/lack of diversity Passionate	Emotions and sentiments about collaboration	Participants' passion for the use of collaboration
Social justice Critical Thrill/excite		

Table 2. *Department of Education: Codes, Categories, and Themes* (continued)

Codes	Categories	Themes
	Elements of collaboration	Meanings and processes associated with collaboration
Shared agenda Shared progress Shared monitoring Consistent communication Systems of care Multiple perspectives		
Multi-Tiered System of Support (MTSS) Partnership Network Substance Abuse	Collaborative efforts	Collaboration that indirectly affects high school completion rates for African American and Hispanic students
School Climate Survey		
Lack of diversity Leadership resistance	Organization, staffing, and location	Organization structure. Staffing, and location barriers
Status quo Separate agencies Siloed organizations Rural areas		
Lack of braided funding Grant cycles/different Limited budget Different pots of money Different ways to implement	Funding issues	Funding methods and need for funds

Table 2. *Department of Education: Codes, Categories, and Themes* (continued)

Codes	Categories	Themes
Lens of ethics Reduce disparities Essential Diversity Fair/not equal Right amount of resources Equity Equality of opportunity Shared resources "Walk of talk" of collaboration Partnership needed Access Multiple factors	Ethical considerations	Ethics used as a basis for deciding to collaborate to improve on-time high school completion for African American and Hispanic students

Table 3 contains the codes, categories, and themes that emerged from an analysis of the statements from the participants from the department of public health.

Table 3

Department of Public Health-Codes, Categories, and Themes

Codes	Categories	Themes
Education and health Work together Health-related data YRBS Program implementation Health and education/interrelated	Use of collaboration	Importance and use of collaboration
Initiative great Risk Youth Behavior Survey (YRBS) Beneficial Use of data	Focus on African American and Hispanic students	Collaboration targeted to African American and Hispanic students to improve on-time high school completion
Data surveillance systems Tailored YRBS	Data sources	Data sources and use
Level of collaboration Policy issue Statutes/regulations State level Staff position/point of contact Information flow Different skill sets/Departments of Public Health and Education "Boots on the ground" Not working dis-jointly Lot of different angles	Elements of collaboration	Meanings and processes associated with collaboration

Table 3. *Department of Public Health-Codes, Categories, and Themes* (continued)

Codes	Categories	Themes
Lot of different people Work together YRBS Work with Office of Suicide Prevention	Collaborative efforts	Collaboration that indirectly affects high school completion rates for African American and Hispanic students
Privacy protected Family Educational Rights and Privacy Act (FERPA) Health Insurance Portability and Accountability Act (HIPAA)	Privacy Issues	Privacy rules/regulations that impact collaborative efforts
Lack of alignment of education/public health Need to define alignments Overlap Different structure Rural areas	Organization. Staffing, and location	Organization structure, staffing, and location barriers
Funding comes from different funding streams Federal Government CDC directs use of funds Need direct funding to local health departments	Funding issues	Funding methods and need for funds

Table 3. *Department of Public Health-Codes, Categories, and Themes* (continued)

Codes	Categories	Themes
Meet health requirement Lack of opportunity/access services Equality/big factor Ethical disparities Inequalities Quantify inequalities Public health/show support Use of data/identify problems YRBS Need both sectors	Ethical considerations	Ethics used as a basis for deciding to collaborate to improve on-time high school completion rates for African American and Hispanic students

Table 4 is the cross-case analysis of the results of the similarities and dissimilarities in codes, categories, and themes between the two cases, the department of education and the department of public health.

Table 4

Cross-Case Analysis-Similarities and Differences

Department of Education and Department of Public Health Similarities		
Codes	Categories	Themes
Collaboration/key to getting work done	Use of Collaboration	Importance and use of collaboration (continued)

Table 4. *Cross-Case Analysis-Similarities and Differences* (continued)

Department of Education and Department of Public Health Similarities		
Codes	Categories	Themes
Public health/education need to work together		
Collaboration/essential Initiative	Focus on African American and Hispanic students	Collaboration targeted to African American and Hispanic students
Multiple perspectives Sharing of information	Elements of collaboration	Meanings and processes associated with collaboration
Consistent conversation Goals Aware of disparity Staff position		
Multi-Tiered System of Support (MTSS) Youth Risk Behavior Survey	Collaborative efforts	Collaboration that indirectly affects high school completion rates for African American and Hispanic students
Need for diverse representation	Organization, staffing, and location	Organization structure, staffing, and location barriers
Different structures		

Table 4. *Cross-Case Analysis-Similarities and Differences* (continued)

Department of Education and Department of Public Health		
Similarities		
Codes	Categories	Themes
Rural areas/different		
Braided funded/needed	Funding issues	Funding methods and need for funds
Funding position		
Federal source/program direction		
Lens of ethics	Ethical considerations	Ethics used as a basis for deciding to collaborate to improve on-time high school completion rates for African American and Hispanic students
Reduce disparities		
Diversity		
Equity		
Greater opportunity		
Lack of access		
Theme Differences Between Department of Education & the Department of Public Health		
Department of Education Differences		
Great hope/excitement	Emotions and Sentiments about Collaboration	Participants' passion for the use of collaboration
Department of Public Health differences		
Privacy Protected Family Educational Rights and Privacy Act (FERPA)	Privacy Issues	Privacy Rules/Regulations that Impact Collaboration Efforts
Health Insurance Portability and Accountability Act (HIPAA)		
Data Surveillance systems	Data sources	Data sources and use
Tailored		
YRBS		

Review of Documents

The participating state adopted the Healthy People 2020 Objective, Education and Community-Based Programs (ECBP) HP2020-6, the aim of which is to increase the proportion of the population that completes a high school education. The goal of this objective is to reduce the rate of high school dropouts in the state and is a companion goal to the Healthy People 2020 goal, AH-5.1 on-time high school completion (Healthy People 2020, ECBP-6, 2018). Under this goal, I found the state had one of the highest high school dropout rates in the United States which was attributed to the increased state population growth and migratory population. Also, African American and Hispanic students experienced the highest percentage of high school dropouts. In one of the largest school districts in the urban areas of the participating state, the 2016-2017 progress report for this Healthy People 2020 ECBP goal showed an increase in the percentage of students who finished high school, but the information was not specific in terms of race and ethnicity. A review of the state's goal for Healthy People 2020, ECBP indicated the state's interest in improving high school completion rates. I located this information while perusing the Healthy People 2020 website for information specific to the participating state after the interviews were completed.

I located the organizational charts for the department of education and public health from the state's website. I found that each department consisted of two different organizations with different leaders. The participants from both departments mentioned that they operate under separate funding streams and this was a potential barrier to working in collaboration. Participants

indicated that the funding sources dictate the focus of program activities. One participant from the department of education recommended braided funding between the department of education and public health as a means to support collaborative efforts between the departments. Cruden, Kelleher, Kellam, and Brown (2016) raised the issue of the challenges of delivering preventive services to children and adolescents through traditional health care services because of a focus on fee-for-service payment methods that pay for acute and chronic medical conditions. Cruden et al. (2016) provided recommendations to use braided funding between departments of education and public health to address reimbursement for prevention and health promotion services, particularly, for cognitive, affective, and behavioral issues experienced by school-aged children. Cruden et al. said that preventive interventions presented new challenges to individuals who aim to integrate evidence-based interventions into the school setting.

Cruden et al. (2016) recommended the use of braided funding streams for prevention and health promotion services. Cruden et al. said that braided streams do not integrate dollars but coordinate the funds in order to purchase the same services provided by a department of public education and public health. According to Cruden et al., braided funds require more accounting and administrative sophistication because of the need for careful monitoring. Cruden et al. recommended that schools should support knowledge transfer between administrators who have successfully braided funds in order to improve the continued use of braided funding efforts. Cruden et al. said that braided funds allow for the reduction of the burden on any one system, education or health, because prevention efforts often require intense financial investments from

one agency or system even though the short and long-term benefits can be experienced by a variety of systems such as juvenile justice, education, and child welfare.

The funding stream for public health is primarily from CDC and the funding stream for the department of education is usually from the federal level department of education. There are CDC grant programs that provide grant funding that require collaboration between a department of education and public health. Another participant from the department of education recommended the creation of the same funding cycles for each department as a means to support collaborative activities between the two departments.

One participant from the department of education indicated that because the departments of education and public health are separate organizations that this results in the creation of silos that may hinder collaboration. In addition, participants from both the department of education and public health indicated that they are governed by separate rules and regulations. For example, the privacy rights of students under the department of education are governed by the Family Educational Rights and Privacy Act (FERPA) of 1974, and for the department of public health, the privacy legislation is under the Health Insurance Portability and Accountability Act (HIPAA) of 1996. According to the participants' responses, provisions of both requirements would need to be examined regarding barriers and concerns over the type of data sharing that can be achieved between their respective departments. Cruden et al. (2016) made recommendations that would facilitate data sharing between public education and public health as follows: state assistance in training and educating schools and healthcare entities about the interpretation of

HIPAA and FERPA and the types of business contracts for vendors would assist the thousands of schools and hundreds of provider groups who cannot afford the costs in terms of time and money for individual legal consultation and sharing of data. Cruden et al. said that at the current time, 14.0% of healthcare providers refuse to share information because of the inability to obtain HIPAA authorization from parents.

I also reviewed an archived policy document from the Internet entitled key policy letters signed by the former United States Acting Secretary of Education and the former Secretary from DHHS. This letter was sent to the chief state school officers and state health officials of all states, including the District of Columbia (Burwell & King, 2016, January 15). These former federal cabinet members discussed a renewal of commitment to support quality health and education for every child in the United States and that the work of these two sectors was important to achieve that goal. The letter contained a reinforcement of the idea that healthy students can increase their learning abilities and that strong partnerships that are both sustained and committed between health and education entities at the federal, state, and local levels are important (Burwell & King). Further, the collective efforts of the two sectors can reduce the disparities in health and education. Both the public education and public health departments were encouraged to strengthen coordination and collaboration between health and education systems at the local and state levels (Burwell & King)

I reviewed a newspaper article, 2017 legislature builds on prekindergartern-K12 reform agenda, and it was noted that the state legislature endorsed the Governor's reform agenda with an

additional investment of more than $152 million going to programs funded in 2015. The article

contained the Governor's remarks which indicated that the reform agenda was aimed at literacy,

improving graduation rates, and the need to ensure that more students are on the road of going to

college or selecting a career pathway. Thus, the participating state for this study was committed

to improving graduation rates.

I reviewed another newspaper article on the collaboration between the state education

department and one of the largest school districts in the state aimed at improving local schools.

This school district was in the urban area of the participating state. The collaboration established

was The Partnership Network to provide social workers in the local school districts to address

the emotional needs of children. The collaborative effort also provided for meeting the health

needs of children through a federally qualified health center (FQHC).

Also, I reviewed a commentary from a Philadelphia, PA newspaper entitled, White

teachers' role in the city. This article discussed the issues of having primarily White school

teachers in a major northern city and the need for diversity to improve the educational attainment

of urban students (Cavanagh & McGeehan, 2018, February 5). One participant from the

department of education discussed the need for more diversity in leadership as important to

making decisions about collaborative efforts aimed at improving on-time high school completion

rates for African American and Hispanic students.

In a commentary by Mackenzie (2018) entitled Public health 3.0, the Dean of the

Bloomberg School of Public Health at John Hopkins, Baltimore, Maryland, discussed a new

paradigm for public health to expand the scope and extent of public health to address all factors that improve health, which included the factor of education (Mackenzie, Spring 2018). Mackenzie supported the start of new partnerships that deal with entities outside traditional public health was critical to the success of the new approach for population health. All of the participants in the study expressed the view that collaboration between public education and public health was important and essential to addressing the needs of the whole child.

In summary, the review of these additional documents provided support for the participants perspectives on the use of collaboration between a department of public education and public health as a means to improve on-time high school completion for African American and Hispanic students. In addition, barriers are identified that were similar to the participants perspectives such as funding, and the need for diversity in making decisions about collaboration between departments of public education and public health. The review of the documents provided another layer of data in addition to the analysis of the data collected from the participants responses to the interview questions. One of the major tenets of the conduct of a case study is to review multiple sources of documents in order to corroborate or not corroborate findings relative to the purpose of the study. The review of other documents provided corroboration to the data collected from the transcripts of the participant interviews in terms of the importance of. collaboration, and the barriers to collaboration. According to Creswell (2013, p. 251), this process of corroborating information is called triangulation.

Evidence of Trustworthiness

Credibility

Houghton et al. (2013) referred to credibility or internal validity as the application of concepts such as triangulation, saturation, member checks, and reflexivity. Triangulation involved obtaining information from multiple sources and analysis to determine if the information was corroborated, or not corroborated, or provided insight into the phenomenon to determine how individuals in a public education department and public health department viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Creswell (2013, p. 251) said that triangulation involved obtaining information from multiple sources and conducting an analysis to determine if the information was corroborated or not confirmed. The levels of triangulation included the following: the separate analysis of each participant's responses to each interview question for each case, or within case analyses (a department of education and department of public health); the cross- case analysis, which involved the analysis between each case; and the review of other documents demonstrated triangulation or corroboration of the views of individuals in a public education department and health department on how they viewed the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Thus, multiple sources were used to obtain corroborating perspectives and different perspectives from the two cases. The cross-case analysis found at Table 4 showed the similarities and differences in the themes that emerged for both cases. The saturation point was reached

when the participants from each case responded to the questions in terms of repeating similar responses.

Reflexivity was the ongoing assessment of my biases and values during all phases of the study. I carefully reviewed the participant transcripts and other documents and kept an ongoing, written record, or audit of my transactions with the participants and Committee Chair of completed actions. Reflexivity was very important when two participants requested in writing to be removed from the study. I accepted their request and I assessed my actions for any biases. Houghton et al. (2012) said a reflective diary should provide the rationale for making decisions and the personal challenges that a researcher encounters during the research.

Transferability

Transferability or external validity is the application of the research findings to other public education and public health entities in providing insights on the use of collaboration to improve on-time high school completion rates for minority students. Transferability was established via analytic generalization as discussed by Yin (2018, pp. 194-199). This type of approach allows for application of the findings in terms of lessons learned. Other public education departments and public health departments may be able to use the findings to increase their collaborative efforts aimed at improving on-time high school completion rates for African American and Hispanic students.

Dependability

According to Houghton et al. (2013), dependability referred to the reliability of the data collection process and the assurance that the information was accurate and consistently obtained. I documented the interactions I had with the participants and kept a written journal or audit trail. I ensured that the study's procedures were followed. I consistently applied the interview protocol (Appendix E) which contained the introductory remarks read to each participant and the interview questions. Also, I consistently applied the same procedure for the conduct of the individual and cross case analysis. I also asked each participant if there were any questions and if they understood the study, the informed consent, the introductory remarks, and procedures for the study.

Confirmability

Confirmability referred to the objectivity of the research study in terms of the identification of the problem, the development of the research questions, the interview protocol and interview questions, the conduct of the interviews, the recognition that the responses of the participants were accepted, and the ongoing review of my biases that I brought to this research study. According to Houghton et al. (2013), dependability and confirmability are accomplished by maintaining a record of the decisions made throughout the research process in order to provide a rationale for the methods used and interpretive judgements made by the researcher. I ensured confirmability by obtaining in-depth responses from the participants and by allowing the participants time to respond to the questions during the interview. I used a good quality

smartphone for the taping of the interview responses, and I identified initial codes based on a review of information from the transcripts. I did not use predetermined or selected codes. After I identified the codes or brief phrases of the participants responses, I developed categories and then the themes or overarching phrases of the participants' statements.

The Results Section

The results section is presented as follows: department of education and the department of public health cases are discussed separately. Next, the cross-case analysis is discussed in terms of the similarities and differences in themes. The themes represent the idea of the codes and the assigned category to the codes. The research question is listed along with the accompanying themes and quotations by the study participants that support the theme.

Department of Education Research Questions and Themes

Research Question 1:

How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Theme I: The Importance and Use of Collaboration

This theme demonstrated how critical collaboration is to solving complex problems. The theme was derived through the analysis of codes from the participant responses, which were then categorized. All participants viewed collaboration as essential and very important in addressing

significant issues and solving complex problems. The participants expressed the following perspectives:

> Participant 1001said, "my views on collaboration is that it's absolutely necessary if we are really going to make a difference for the students in our care." Similar sentiments were echoed by participant 1002 who stated, "Collaboration is important. In fact, it is essential to produce realistic and actionable outcomes." Participant 1003 said "Okay, I believe that collaboration is key to getting work done efficiently, particularly, when complex problems need to be addressed that have multiple perspectives."

> Participant 1006 said: Well, I think it is essential. So often in public education we have kids that come to us with at least, in my experience have high needs, the kids that I have experience working with are up against a lot of adversity when it comes to poverty, when it comes to addiction in the homes, …

Theme II: Collaboration Targeted to African American and Hispanic Students to Improve On-Time High School Completion

All participants expressed the view that collaboration between the department of education and department of public health could be used to improve on-time high school completion rates for African American and Hispanic students. It was important to obtain views on targeting collaborative efforts to improve on-time high school completion for African American and Hispanic students, who are the focus of this study. Decisions will need to be made regarding a targeted or non- targeted approach to address the issue of ensuring that on-time high

school completion is accomplished for minority and other vulnerable students. Participants expressed their views on the use of collaborative efforts between the public education and public health sectors to improve on-time high school completion rates for African American and Hispanic students as follows:

> Participant 1001 said: Again, I think collaboration between these two are essential and so, again we have collaboration between the public health and department of education, or districts at all levels. It is important because not only do we see educational disparities, but we also see health disparities and the two are interrelated and; therefore, just schools, or just education departments, or just education entities cannot solve the problem alone.

Another participant 1002 said, "so, I would say that public health officials would both agree that it makes sense, that we would produce better on-time completion if we are able to collaborate."

> Participant 1003 said: Collaboration between these two as a means for graduation. I can give you an example, in … here our state-wide data collection for the youth survey is collected through the department of public health and because that data is of value to the education department it's essential that we work collaboratively with them in order to receive the data and apply it in a useful manner which helps us achieve our goals…

> Participant 1005 said: The collaboration between educators and public health professionals or those sectors is essential to address the whole child. The interdependency between social, emotional, behavioral, and academic is what bounds the educational

system, and the child's upbringing environment on campus and outside the campus. In

order to achieve wellness, to achieve student achievement and to be college ready at

graduation these two sectors need to be partners throughout the whole process.

Under this theme, a discrepant view was shared as follows:

Participant 1002 said: Another piece of awareness that has really come forward recently

is adverse childhood experiences (ACEs), and how children who have experienced

multiple ACEs, how that impacts them as a student, or impacts them in terms of their

personal mental health or well-being and so that's a good thing. There is more

recognition of why some students and some children are challenged, and for example, on-

time high school completion.

This participant felt that collaboration between the two sectors should also be applied to

other vulnerable students such as low-income Caucasian students, and children who suffered

ACEs. Soleimanpour, Geiestanger, and Brindis (2017) said, according to researchers, ACEs are

defined as physical or emotional abuse or neglect, sexual abuse, domestic violence, substance

abuse or mental illness in the home, parental separation or divorce, having an incarcerated

household member, and not being raised by both biological parents. Another participant

discussed the issue of implicit bias, another discrepant view, and how that impacts students.

Participant 1006 raised the issue of implicit bias and said: So, specific to that

subpopulation, I guess I think that there is probably some implicit bias that happens in

schools and we see more kids at lease in my area, more Hispanics students that tend to

have I want to say a slower graduation rate, but a decreased graduation rate than other populations of White or Caucasian students, and I think some of that has to do with what is going on at home and a lack of stability and so in order to be able to support the needs and to be more culturally competent as educators, we need to rely on community services and supports.

Further, participant 1006 said [in reference to implicit bias], "Well to me, it means there's a lot that we do as educators that perhaps we are not aware of that shows there is bias unintentionally."

Theme III: Participants' Passion and or Sentiments for the Use of Collaboration

This theme was derived through the analysis of codes from the participant transcripts, which were then categorized. It was identified because it addressed research question 1 in terms of participants' passion or sentiment about the use of collaboration to address a complex problem such as on-time high school completion for African American and Hispanic students. It is important to obtain an idea of the passion/sentiments about collaboration because this can serve as a catalyst for participants to collaborate. Quotations that supported this theme were as follows:

Participant 1001said: I have two emotions, the first one is great hope and excitement when I do see that collaboration happens because as I have said before, I think collaboration is essential especially around the issue of disparities, those disparity gaps, not only in health, but educational attainment in African American and Hispanic communities. I also have a great sadness that when I do, when I am looking at

collaboration and we are looking at those issues specifically, the sadness is that we don't have diversity within our partnerships themselves and so I don't think it's ethical to be creating collaborative plans or policies when we don't have African American representatives of that population, or that we don't have people in those fields, or in leadership positions helping us to make those decisions.

Participant 1002 said, "So, I feel passionately about that, about the importance of doing everything we can, including collaboration to bring about on-time completion for African American and Hispanic students and . . ."

Participant 1003 said: Well, because I have a strong propensity toward social justice issues, I see my passion exists in terms of you know looking at any type of disparity and equity that all students should have the same ability and same access to good education.

Participant 1005 said: So, my perspective from an emotional standpoint, I feel it is critical and way past due for these types of relationships and collaborative initiatives to happen. I feel that the absence of this collaboration has cost our nation significant progress and advancement, has kept us stagnant and at status quo…I feel that we have done a disservice to the students in the last decade since we have the resources to communicate and we have the knowledge of its significance and it impact in achieving common goals to help students learn…

In addition, participant 1006 said, "from an emotional standpoint, it thrills and excites me. I just believe so much that it is a valuable practice that I get fired up about it and excited

about the opportunity to collaborate." Participant1007 said, "from an emotional standpoint, I'll say I built most of my career around it, so I am passionate about it…"

Research Question 2:

What is the understanding and knowledge individuals in the public education and public health sectors have about interagency collaboration?

Theme IV: Meanings and Processes Associated with Collaboration

This theme was derived through analysis of codes from the participant transcripts, which were then categorized. The theme is important because it provided perspectives on the participants' knowledge and understanding about interagency collaboration. It is important to understand the concept of collaboration and the elements involved in order to implement collaborative efforts. Also, it is important to identify the areas of additional training needs of staff on how to collaborate with other agencies. The majority of participants were involved with collaboration with the department of public health. Participants from the department of public education provided specific perspectives about the meaning of collaboration and the processes involved with collaboration. Quotations that supported this theme were as follows:

Participant 1001said: Well, I think that the first part is ensuring that we have the proper leaders in the room and so that we have all kinds of people represented not only from the different health sectors and education sectors, but also people that live and understand the disparity gap from the culture we are talking about so that's essential. The second part is kind of procedural that we can agree upon a shared agenda, we can look at shared

progress, monitoring, we can also be consistent in our communications and ideally if we came up with shared plans or shared action plans with mutually agreed reinforcing shared activities.

Participant 1002 said: Over on the public health side they're within public health collaborations called systems of care that look at that has a lot of public health agencies collaborating. The intersection between those two, between education collaboration of equity and diversity and the public health collaboration of systems of care which likely has an aspect related to different populations such as African American and American Hispanics.

Participant 1003 said, "my knowledge about the concept of collaboration is that it requires multiple perspectives, and it requires consistent conversation, and it requires sharing of information between all parties."

Participant 1005 said: So, what goes into collaboration, the concept of collaboration. I am thinking where my mind goes in order to meet the disparities of these African American and I think it was Hispanic students' demographics meeting graduation rates or not meeting graduation rates. The concept around collaboration presupposes first goals, and awareness about the disparity through data, then a conversation about how this has been happening who is involved, the major stakeholders. Other things that goes into the concept of collaboration to meet this would have to be talking resources that would be helpful to address the problem and a systematic approach to bring specialists together that

can directly impact a change and set those goals for what the change needs to be and have

a consensus on that so that everyone involved, all stakeholders have a commitment, and

help further to implement and sustain the effort…

Participant 1006 said: In my experience people can do more together than they can do on

their own and we have to look around to see that there are so many things in the world of

education that we don't think this is just impossible or we don't have the resources, but

we have to ask ourselves who else cares about the issue and if we find people within our

community that also cares about the issue and then we put those resources together, to me

that's collaboration, then we are able to address the issue.

Theme V: Collaboration Efforts that Indirectly Affects High School Completion Rates for African American and Hispanic Students

This theme was derived through analysis of codes from the participant transcripts, which

were then categorized. It was important to have an understanding about the participants

experience with interagency collaborations. There was no program identified that was specific to

improving on-time high school completion for African American and Hispanic students. The

participants felt the interagency collaborative efforts had an indirect impact on these students as

it related to on-time high school completion. Quotations that supported this theme were as

follows:

Participant 1001said: So, we have a project right now that looks at a multi-tiered system

of support (MTSS) so, we work with our public health entities and with federally

qualified health centers (FQHCs), public health entities where we ensure that we have teams in our schools so that all of the support both academically, behaviorally are there…

Another participant, 1002 said, "so, there's one I am aware of in …which is in our biggest…area school district. Very recently, a partnership network has been established between I think five high risk elementary schools and a federally qualified health center…" In addition, participant 1003 said, "other ways that we work with them…collaboration with them is about substance abuse… ."Participant 1005 expressed the view that "a couple of different examples would be the school climate survey taken to collect student perspective of their experiences on campus on a variety of heath and academic related issues that impact academic achievement…."

Research Question 3:

What are the barriers to collaboration between individuals in the public education and public health sectors to improve on-time high school completion for African American and Hispanic students?

Theme VI: Organization, Structure, Staffing, and Location

This theme was derived through analysis of codes from the participant transcripts, which were then categorized. This theme was important because it is helpful to have knowledge about barriers and concerns that may hinder collaborative efforts between public education and public health. Quotations that supported this theme were as follows:

Participant 1001 said, "I think one of the barriers is that at least in … we don't have diverse representation in our leadership in either the public health or education sector…"

Participant 1002 said: I think leadership perspective on change, this is the way its always been done kind of mentality in some sectors of administration or of political office holders to keep the status quo… I think teamwork training, professional development training and a lack of that is a barrier… sometimes there is territorial mentality, … Conversely, rural school districts being very small, they have no independent structure related to equity and diversity…. I think size matters in terms of the ability to collaborate and have professionals trained to collaborate.

Participant 1004 said: Boy that's a hard question and is not one that I am well versed on, I would say that even within the department of education what you sometimes see and I know. . . has done a really nice job in addressing silos and a lot of times we have departments that are in the same building or across the hall from one another and are not cooperating at all. So, I would say I am not sure how coordinated the health department is . . . with the education department . . .

Participant 1007 said: … I think that if we keep having separate agencies working on all these different pieces of children that there's going to be silos, there's going to be everybody has their job to do and there's not a lot of crossover even though it's the same child…

Theme VII: Funding Methods and Need for Funds

This theme was derived based on the association to research question 3. It is important to recognize funding issues that may impede collaborative efforts between the public education and

public health sectors. This theme was also selected based on the list of codes and the identification of the appropriate category. Quotations that supported the theme were as follows:

Participant 1001 said: The other barrier I feel is that we have separate funding streams all wanting separate data, all wanting separate rules/regulations and so even though that makes collaboration difficult to do . . .There is a barrier to braiding funding. [Braided funding is blending the funding so there is one pot of money or grant cycle for meeting the same objectives for public education and public health]. We still think independently, yes, we are part of the same state, but we are two different departments, we have two different ways of doing things, so all those things are over-comeable, but it is a mind shift…

Participant 1002: said: The same is true at the state level when the state is providing funding. So, for example, in education a way to incentivize collaboration is to make grant cycles the same, there are three different pots of grant money that you can apply for to achieve the same outcomes or try to collaborate.

Participant 1005 said: Another barrier would be funding. I've seen it over again especially in education sectors, a limited budget where the current staff is overwhelmed and barely holding on to their capability of performing daily duties and adding more things as is possible for those individuals so if more funding was provided directly to bring in more staff for specific initiatives around collaboration and development, that would be helpful.

It is important to have knowledge about as many barriers and concerns as possible to collaboration in order to develop a plan to remove the barriers and concerns. Participants from the department of education provided different or discrepant perspectives on barriers and concerns as follows:

Participant 1001 said: It's the last barrier our human resources system. Instead of our human resource system supporting and bringing out the best in our people in some ways human resource system expects the worse out of people and so things like psychological safety so that teachers, or administrators, or any kind of governmental employee feels safe to take risks and to do things like these radical collaborations it is not there and so there is this climate that says don't innovate, …

Participant 1002 said: The other [barrier] might be language so, the degree that it is very important to engage families of these students from these two sectors in their supporting on-time completion… creating unrealistic expectations based on capacity and funding and then you end up, you know having people say that did not work. Well, maybe we had too much of a dream to begin with.

Participant 1003 said: …but it [collaboration] is more time consuming, but I acknowledge, and I know that I don't do anything in isolation personally because I don't know everything…data collection systems not being comprehensive enough in order to be able to aggregate data by race, ethnicity to see where those disparities lie…. another point that comes to mind is individuals' implicit biases, in that, they may not be aware

that some of the practices that they are using, or some of the ways they discriminate implicitly, and so it affects students, particularly students of different races and ethnicities, and so, we do have to show disparities, but we are currently trying how to figure out how to address that…

Participant 1006 said: I think probably a common barrier or boundary that people tend not to want to look at is self-perception or an issue meaning that it is difficult for teachers that are giving their all. If we just look at school staff, they feel like they are doing everything that they can do to help students and students still are not achieving they don't want to look inside and say how can I change or what can I do differently or is there an implicit bias?

Participant 1007 said: Probably the biggest barrier is time and resources and I think that when you are focused on food, shelter, and clothing it is really hard to start thinking outside the box for a lot of those professionals in the field when you are helping a child who is in a dire situation and just get them their basic needs met or then stepping out of that and helping to collaborate within their educational system it is more than most people can do in a day.

Research Question 4:

How do individuals in the public education and public health sectors view an ethical basis found in John Rawls's theory of justice and Amartya Sen's capability approach as reasons to use

collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Theme VIII: Ethics Used as a Basis for Deciding to Collaborate to Improve On-Time High School Completion Rates for African American and Hispanic Students

This theme was derived through analysis of codes from the participant transcripts, which were then categorized. The theme emphasized the importance of research question 4, i.e., the use of an ethical basis for deciding to use collaborative efforts to address the problem of disparities in on-time high school completion rates. Most participants felt that an ethical basis could be the reason for collaborative efforts.

> Participant 1001said: yes, so again I think that collaboration and in the lens of ethics to reduce disparities is essential and ways to do that again is to ensure that the leaders look like the people who have disparities and that we involve those folks and we involve both partners, and that we also include parent choice, and that we build the capacity together to ensure that there is ethical leadership. To me ethical leadership means to know that we are not going out and fixing other people, that we are working together, and that there is representation from all different groups….

All participants felt you could use the concept of fair equality of opportunity (FEO) as a reason to decide to collaborate; however, the majority of participants expressed the discrepant view that equity should also be the focus for collaboration. Several participants expressed

discrepant perspectives in terms of the need to focus on equity. Some of the quotations are as follows:

> Participant 1002 said: …to be fair is not to be equal. So, for what does that mean to me is that to be fair to your two populations of interest, African American and Hispanic kids, to be fair to them, they need unequal resources and support. They need more resources and support than the kids that go to … So, I think it is a trap to say equal funding for all children. I think it is appropriate to say we need the right amount of resources and collaboration for the population that we are trying to affect…

> Participant 1003 said: Fair equality of opportunity could be used as a basis for deciding to collaborate between the department of public education and health, but also offered a discrepant viewpoint as follows: Let's see when you use the word equality, so equality is everybody has access. Equity is equally being able to utilize this service. So, I think there is a big difference between equality and equity. We strive to provide to have equity amongst all students for the same access to that service. . . It comes into play when we look at our data. Data are numbers but unless you dig a little to find out what these numbers are saying you might have that might be equality in every student participating but how culturally competent is it? Are they able to easily receive those services in their language or in a way that allows them to have the same equal opportunity?

> Participant 1005 said: Equality of opportunity between education and health to meet on-time high school completion rates. I think I could because collaboration between these

two sectors would provide greater opportunity at school sites and throughout the community giving more access for all students and if it was designed specifically for that purpose. I think that the partnership would be justified and accepted to meet the need.

Participant 1006 offered a discrepant perspective and said: That's a great question and equity is essential…we always go back to looking at the differences between equality and equity and I ask people to consider that fair is not equal and so, when we look at some of our subpopulations, it is very important to understand that in order for them to understand that to have equal access to education that support from the community is essential.

Participant 1007 said: Ethically, huge disparities exist between the opportunities and access to high quality experience from pre-natal through adulthood. We need to stop using property taxes as the basis for funding education or at least make it, so they are spread out equally when it is not….

Participant 1007 further said: Education and health need to collaborate from the beginning. Sending more resources and funding into the areas that need it most, but you have to be sure you're not losing children who may not be just those targeted areas. We have to identify children and/or families early, health is the best way to do that, and then they can refer or help the education system identify these children. They have to be able to share information and resources at all levels.

Participants also addressed the use of combined efforts through collaboration between the education and public health sectors as a means to reduce disparities in on-time high school completion rates. Quotations that supported the use of combined efforts were as follows:

Participant 1001said: The use of shared resources between the public health sector and the education system in my mind is the walk of the talk of collaboration so, it is one thing to talk about collaboration and to have some shared plans, but it is another thing to share resources. It makes good sense. It's sustainable for sharing resources instead of you know duplicating everything in our separate systems or silos, so for me the answer to that is essential.

Participant 1002 said, "so, the first form of collaboration that comes to mind is school-based health clinics and those are essential. I think providing health care where students or where families can come there as well is important and makes total sense."

Participant 1003 said: I think that's something that we need when I say we, I mean we need all public health and the department of education need to begin looking at it a little differently when you talk about resources. The first thing that comes to mind is funding. So, some of the efforts that our office is looking at now is how to braid some of that funding between both departments because we have a common need, but it maybe that our resources are not distributed equally so, for instance maybe looking at a shared staff position or utilizing different funding sources to provide staff or provide a service and

then being that's the art of collaboration is that you actually don't just talk about it you do something about it….

Participant 1005 said: … a partnership between education and the health sectors will help to address the emotional, psychological, behavioral, and physical wellness of the student for them to come to school on time, prepared and equipped to learn throughout the day and then apply themselves and move toward graduation.

Participant 1006 said: … kids don't have access to equal education because some of their basic needs are not being met and we have to look are kids fed, are they clothed, are they warm, do they feel safe and if we can't answer that question in the affirmative for all kids then we are not I think doing our moral responsibility to all students and again, it takes looking inside ourselves to our different subset of populations of our students to say, are we doing everything that we can do and if not in the education field it might be that we don't know how? We don't know what is missing…. I think it is our moral obligation and responsibility to do that to look at the big picture.

Department of Public Health-Research Questions and Themes

Research Question 1:

How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Theme I: The Importance and Use of Collaboration

This theme was selected because it relates to research question 1. This theme is important because it addressed the participants' views on collaboration in general. This theme was derived through analysis of codes from the participant transcripts, which were then categorized. The quotations that supported this theme were as follows:

Participant 1010 said: So, for collaboration on this topic, I think public health and education really do need to work together. From the public health perspective, especially, in the epidemiology field, we are obtaining a lot of health-related data that can possibly impact graduation rates for high schoolers.

Participant 1012 said: I think collaboration in general is the key to most successful program implementations in public education and public health . . . just the idea of public health being present in the education system is important because ultimately, you know health and all these things are interrelated.

Participant 1008 offered a discrepant view and said: we do not collaborate a whole lot with the education department at the state level. I do hear anecdotal cases at the local levels, more at the county level where people that work in public health interact more with the local school districts.

Theme II: Collaboration Targeted to African American and Hispanic Students to Improve On-Time High School Completion

This theme is related to research question 1. This theme also provided insight about the views of the participants concerning a specific use of collaboration to improve on-time high school completion rates for African American and Hispanic students. The theme was identified based on the listing of codes and the resulting category. Quotations that supported this theme were as follows:

> Participant 1009 said: Well, I think that such an initiative would be great because I know we do have the risk behavior survey that I think that's with CDC [Centers for Disease Control and Prevention] and it assesses risky behaviors of students and how it affects their studies so I believe that collaboration between public health and education would be very beneficial.

This participant expressed the viewpoint that collaboration between public education and public would be a great initiative for improving on-time high school completion for African American and Hispanic students.

> Participant 1010 said: So, I think the focus here would be on using the public health data that we have, you know whether that's the state, or at the county level. Using the data so public health would provide that to the education department to kind of show them what issues are specifically facing the African American and Hispanic students in relationship to graduation rates…

    This participant also expressed the discrepant view that the data should be used for all races and ethnicities within the school.

> Participant 1012 said: My mind goes to YRBS, the Youth Risk Behavior Surveillance Survey. I guess my mind goes there because the idea is to do collaboration…Collaboration is obviously going to drive interventions that could potentially drive programs that could better our high school completion rates.

Theme III: Data Source and Use

    This theme was derived through analysis of codes from the participant transcripts, which were then categorized. This theme is associated with the importance and use of collaboration. Most participants from public health viewed the use of specific data as a vehicle for collaboration with the department of education. This view is also mentioned under other themes that were generated. The use of data is important because it can help to identify or describe the issue, it can quantify the issue, and provide directions for interventions to address the issue. This theme was generated from the codes and the identified category. Quotations that supported this theme were as follows:

> Participant 1010 said: So, we are out there obtaining a lot of information and data we need to collaborate with education to see how we can use this information to make a change. So, it is one thing to be able to say here's an issue and that education side of it will probably be able to speak to it to say what kind of options at the school level to

address these concerns. So, we could possibly identify the school issue and they would be

more of the problem solvers. How do they use this data to make change?

Participant 1012 said, … "the YRBS is given to students but asks questions related to all

things in public health. …I think because of the collaboration of systems such as the

YRBS, we can better direct our efforts to those students more efficiently."

Research Question 2:

What is the understanding and knowledge that individuals in the public education and

public health sectors have about interagency collaboration?

Theme IV: Meanings and Processes Associated with Collaboration

This theme was derived through analysis of codes from the participant transcripts, which

were then categorized. The theme was also related to research question 2. It is important to have

knowledge about what collaboration means to the participants. Their knowledge about the

concept and associated processes provided information about their understanding about

collaboration. The responses could also provide guidance about training needs on collaboration.

Quotations that supported theme IV were as follows:

Participant 1008 said: Yeah, you can just collaborate come together really be

straightforward depending on what level you conducted the collaboration that usually is

the local level is a better starting point because the problems are usually local. If there is a

policy discussion, if it needs to be a statute/regulation obviously that would be at the

state more so, but the actual people getting things done would be at the county level of

that collaboration…

Participant 1009 said: well, in my view the concept of collaboration between

both groups are that there should be a staff position available through the state and

education system where one staff is able to kind of be the point of contact from

where they can get information back and forth….

Participant 1010 said: As I mentioned previously, collaboration on this type of issue we

have two different skill sets in education and public health so in education they are boots

on the ground, after school, working with students…So, with public health we are there

obtaining a lot of information and data we need to collaborate with education to see how

we can use the information and data we need to collaborate with education to see how we

can use the information to make a change.

Participant 1012 said: …I think the idea of people working together to solve a problem

and not working dis-jointly or in silos….I think high school completion is something

again that is driven by many factors, home life and family factors, transportation, drug

abuse, and just an individual's idea of what is successful, and what they need to be

successful in life, and the importance of success. I think really collaboration is the idea of

not just one of those barriers in isolation but the idea of a lot of different angles by a lot

of different people working toward the same goal to have an effect.

Theme V: Collaboration that Indirectly Affects High School Completion Rates for African American and Hispanic Students

This theme was derived through analysis of codes from the participant transcripts, which were then categorized. The theme also allowed for the identification of examples of collaboration. The examples provided descriptions of the public education and public health sectors working together. In some instances, the participants were not aware of any collaborations between public education and public health. Several participants discussed collaborative efforts that may indirectly impact on-time high school completion for African American and Hispanic students. There was no specific program identified that focused specifically on collaborative efforts to improve on-time high school completion rates for African American and Hispanic students.

> Participant 1009 said: Okay, the one I've heard of, the one I mentioned the Youth Risk Behavior Survey and so someone from the state goes to different schools and does a survey on a random selection of students and they see what risks they are and what kind of risky behavior that they are participating in and how. …
>
> Participant 1010 said: So, I would say the projects that I am most aware of in this field would be the Youth Risk Behavior Survey often referred to as YRBS. The CDC project based in the department of education and public health agencies, basically, to obtain health and behavior at the high school level and even now starting at the middle school level….

Participant 1012 said: A couple concrete examples that I can think of and these would be I would say are not directly related to high school graduation rates, but I am sure would have a positive effect on high school graduation rates between public health and public education would be the YRBS (Youth risk Behavior Survey) …. We have a lot of initiatives taking place right now related to drug abuse that are cross cutting the Department of health and human services with the department of education…We also have a situation where we work with the Office of Suicide Prevention in schools…

There was a different perspective concerning programs that indirectly impact the on-time high school completion rates of African American and Hispanic students.

Participant 1008 said: . . . I don't think that there is a conscious effort on the public health side of this action on my part will help these individuals graduate maybe later down the line . . . So, it would really be interesting to see if there's that collaboration of what can be done moving forward.

Research Question 3:

What are the barriers to collaboration between individuals in the public education and public health sectors to improve on-time high school completion rates for African American and Hispanic students?

Theme VI: Privacy Rules/Regulations that Impact Collaborative Efforts

This theme was derived through analysis of codes from the participant transcripts, which were then categorized. The theme is associated with research question 3. It is important to be

aware of a barrier such as privacy of information to ensure that the privacy requirements

regarding the sharing of information is met. The department of public education is governed by

the Family Educational Rights and Privacy Act (FERPA) and department of public health is

governed by the Health Insurance Portability Act (HIPPA). Several participants provided

quotations as follows:

> Participant 1008 said: … the only concerns you might get, especially, if you delve into it
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> that is making sure that privacy is protected whether it's public health, there are certain
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> standards to meet if they are going to share information across the individual students,
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> individual kid's that privacy is maintained, I think would be one of those.
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> Participant 1012 said: So, to have successful collaboration really you need to be able to
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> measure the outcome of whatever it is you are attempting to do, and we run into issues. I
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> think FERPA is the educational equivalent to HIPAA so that sharing data on these kids to
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> get numbers.

Theme VII: Organization, Structure, Staffing, and Location

This theme was derived through analysis of codes from the participant transcripts, which

were then categorized. It is important to know the organizational, staffing, and location issues

that may impede collaboration between public education and public health. This information can

pinpoint areas that need to be addressed to support collaborative efforts. Quotations that

supported this theme were as follows:

Participant 1008 said: … they may not see the alignments that would really have to be

defined. How are they aligned to achieve these types of goals, how can they working

together that might be clearly be defined to show how that collaboration can help

beforehand, because they are sitting down together they may not naturally arrive at a

collaborative effort, but having that already put out there and how that collaboration can

help everybody would be a good way to eliminate that barrier upfront.

Participant 1009 said: …the only one I would think of how they would overlap and who

would be the one that's pushing for the collaboration because both parties must both be

for this and have to both be for collaboration. So, if it is one-sided, it might be harder to

keep going.

Participant 1010 said: I would say that agencies are structured very differently so, that

every school district in…is different that I worked with. They have different

organizational structures and a lot of issues in…are really related there only one to three

schools in our main school districts and the remaining are rural…is a very rural area and I

think a lot of our lowest graduation rates are at those rural schools, and they don't have a

local health department.

Theme VIII: Funding Methods and the Need for Funds

This theme was derived through an analysis of codes from the participant transcripts,

which were then categorized. The theme was also related to research question 3. Funding is very

critical to the operation of a public sector; however, it can also be a barrier. It is important to

have knowledge about how funding is a barrier and to determine the potential for addressing this issue. The theme evolved from the list of codes and the identification of an appropriate category. Quotations that supported this theme were as follows:

Participant 1008 said: … Having money, especially if you are talking to a school administrator having to sit down and take the time or public health taking the time out of a day to do similarly, go through a couple hours a day, or whatever to go through similar issues to see how this could work.

Participant 1009 said: Oh yes, a barrier to collaboration would probably be the funding for this because many positions are involved already so there might be a need for a new position to be created for this that would most likely deal with funding.

Participant 1010 said: I would say the biggest barrier that I have noticed is that most of our funding for state public health field comes from the federal government. So, we get the majority of our funding from agencies like CDC… So, I think directly funding the local health departments and the school districts would probably have a bigger impact…

Participant 1012 said: …Well, I think collaboration one of the major barriers is public health is primarily focused on emotional and behavioral health. I think that 85% is federally funded through federal grants. So, I think that a lot of our work has to be directed to where our funding is supporting this...

Participant 1008 shared a discrepant view and said: Barriers potentially, I would see as policy decisions between both sides. The goals each sector has are slightly different.

They may not see the alignments that would really have to be defined. How are they

aligned to achieve these types of goals, how can they working together that might clearly

be defined [goals] to show how that collaboration can help beforehand, because when

they are sitting down together they may not naturally arrive at a collaborative effort but

having that already put out there and how that collaboration can help everybody would be

a good way to eliminate that barrier up front.

Research Question 4:

How do individuals in the public education and public health sectors view an ethical

basis found in the John Rawls' s theory of justice and Amartya Sen's capability approach, as

reasons to use collaboration as a means to improve on-time high school completion rates for

African American and Hispanic students?

Theme IX: Ethics Used as a Basis for Deciding to Collaborate to Improve On-Time High

School Completion Rates for African American and Hispanic Students.

This theme was derived through an analysis of codes from the participant transcripts,

which were then categorized. The theme highlighted research question 4.and showed the

importance of this question. The use of ethics may be a catalyst for deciding to do interagency

collaboration.

Participant 1009 said: When people in one community have access to certain things there

is the likelihood of graduating high school on-time increases, but if others don't it is

harder for them to complete high school on-time. So, equality is a big factor.

Participant 1010 said: I think that there are ethical disparities among school districts in our nation, in our state, specifically, I think there is a need to identify these disparities before you can even think about collaboration. So, if you have a school that is not receiving the same type of equipment or the same type of funding proportionate to their population, I think that is something that needs to be identified and addressed before you can really talk about collaborating or using that as a way to identify which areas you should be working on first… Yeah, I think the construct of equality is probably, I think would need to be the basis of the collaboration. Especially, if you can use public health data or even some education data to show that things are not equal in certain areas of our country, or of our State, or of our community . . .

Participant 1012 said: I think that to quantify any inequities that drive any dropout rates, or the opposite of on-time high school completion rates obviously any inequalities drive that, socioeconomic inequalities, racial inequalities, all kinds of inequalities are obviously driving down high school completion… I think that collaboration is necessary because you are not going to have one department of government, for example, that is going to be able to address all those inequalities.

In terms of the use of combined efforts between public education and public health, the participants expressed the view that combining resources through collaborative effort could be used to improve on-time high school completion rates for African American and Hispanic students. Quotations that supported this perspective were as follows:

Participant 1008 said: …but just public health showing support where they may be needed either target populations or community-wide to ensure that people are able to get through school or immunizations maybe as an example needed to get into school providing some type of support is going to help that education goal and the outcomes in the long run. I can see that will be beneficial in improving the education capability and goes even during the school season… public health involvement in schools with information to staying healthy, that you are not sick, you are not missing school, etc., things like that will increase the education capability, …

Participant 1009 said: My thoughts on this if we can use public health data, data that is readily available or data that becomes available to kind of show a school where they are in the community so they know okay this is the problem your students are facing and this is how you can help or this is how you can tell them to get resources so, some collaboration like this would sort of bridge the gap because sometimes people just keep working and don't know where the problem is coming from so, the public health officials could be the medium that alerts schools about their issues and how to mitigate those problems…

Participant 1010 said: Some of the collaborations that I have been aware of I mentioned the YRBS, the Youth Risk Behavior Survey. That's a strong collaboration by the schools allowing public health to come in and administer these surveys to the students. It really

helps probably our main source of data for high school students as far as their health

behaviors and then we compare them to graduation rates…

Participant 1012 said: I think it is naïve to think that education, that on-time high school

completion rates are the job specific to the Department of Education…So, I think

working together is necessary. I think that we see very definitely that things like high

school graduation rates are directly related to the world of public health.

Cross-Case Analysis-Departments of Education and Public Health

The purpose of this multiple case study was to determine how individuals in a public

education department and a public health department viewed the use of collaboration as a means

to improve on-time high school completion for African American and Hispanic students. In order

to conduct the cross-case analysis, the following actions were completed: First, I conducted an

independent or separate analysis of the participants' responses for each case, the department of

public education and the department of public health, respectively. Second, this within case

analyses resulted in codes, categories, and themes (Tables, 2 and 3). Third, the themes were

identified that related to the research questions. I identified eight themes for the department of

education and nine for the department of public health. I analyzed the themes to identify

similarities and differences between the two cases

I identified seven themes that were similar between the department of education and

department of public health. I identified one theme that was different for the department of

education and two themes that were different for the department of public health. The

participants' in-depth interviews provided the perspectives that resulted in the similarities and differences in the themes. In several instances, the content of the themes was different, but the same theme was generated based on the knowledge and experience of each participant for each case. Table 4 includes the codes, categories, and themes for the cross-case analysis.

The cross-case analysis provided an examination of the patterns that emerged across the themes for the two cases. I found that themes may be similar for the two cases because the cases are part of bureaucratic organizations within the same state. Bureaucratic organizations are based on a hierarchical structure with separate policies/procedures, rules and regulations (Borkowski, 2009). Also, I observed from the organizational charts that each case had a different organizational structure with different leadership and reporting mechanisms. I observed that the participants from each case recognized the interconnectedness between education and health, and for this study, public health. According to Borkowski (2009), divisional structures divide the organization's operations into product/service or customer segments or geographical locations. Each division is responsible for its operation and is decentralized. This decentralization results in duplication of resources because each division has the same administrative operations (Borkowski, 2009). The research questions, themes, and participants' quotations that supported the cross-case analysis themes were as follows:

Research Questions and Themes: Departments of Education and of Public Health

Theme Similarities

Research Question 1

How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Themes I for Education and Theme I for Public Health: The Importance and Use of Collaboration

The theme was similar and was related to research question 1. The participants from both cases viewed collaboration, generally, as an important vehicle for addressing complex issues and problems. The participants from the department of education had experience in collaborating with a specific unit in the department of public health. I was not able to obtain volunteers from that unit in public health for this study. The participants from the department of public health unit who participated had limited or no experience with collaboration with the department of education. Both cases shared the view that collaboration was important and could be used to solve complex problems. Quotations that supported the themes were as follows:

Participant 1001 said, "my views on collaboration is that it's absolutely essential. Participant 1002 echoed this perspective and stated, "collaboration is important..." Participant 1003 said, "okay, I believe that collaboration is key to getting work done efficiently, particularly, when complex problems need to be addressed that have multiple perspectives. So, that would

include both education perspectives and public health perspectives." Participant 1010 said, "so, for collaboration on this topic, I think public health and education need to work together." Participant 1012 stated, "I think collaboration in general is the key to most successful program implementations in public education and public health. . ."

Themes II for Education and Theme II for Public Health: Collaboration targeted to African American and Hispanic Students to Improve On-Time High School Completion

The themes represented the importance of research question 1. The participants from both cases shared their views on the use of collaboration as a means to improve on-time high school completion for African American and Hispanic students. The participants from both cases expressed the view that collaboration can be used to improve on-time high school completion rates for African American and Hispanic students. Several participants expressed discrepant views, one each from the department of education and department of public health felt that collaborative efforts should also focus on all races, ethnicities, and students who experienced ACEs. Quotations that supported the themes were as follows:

> Participant 1001said: Again, I think collaboration between these two is essential and so, again we have collaboration between the public health and department of education, …It is important because not only do we see educational disparities, but we also see health disparities and the two are interrelated and; therefore, just schools, or education departments, or just education entities cannot solve the problem alone.

Participant 1009 expressed the perspective in this manner, "well, I think that such an initiative would be great because I know we do have the risk behavior survey that I think that with CDC and it assesses risky behaviors with students and how it affects their studies …"

Participant 1010 said: So, I think the focus here would be on using public health data that we have, you know whether that's the state or even at the county level we have both options. Using the data so public health would provide that to the education department to kind of show them what issues are specifically facing the African American and Hispanic students in relationship to graduation rates. Risk behavior such as drug use, or risk behaviors such as school attendance, just general health topics that can relate to whether or not these students are in school and I think that it is not just for African Americans and Hispanics, it can be used for all races, ethnicities within the school.

Research Question 2

What is the understanding and knowledge of individuals in the public education and public health sectors regarding interagency collaboration?

Themes IV for Education and IV for Public Health: Meanings and Processes Associated with Collaboration

The themes were similar for both the departments of education and public health. The themes addressed research question 2. The themes provided the perspectives of the participants about their understanding of the concept of collaboration and the processes associated with collaboration. It is important to have knowledge about collaboration to implement collaborative

efforts, and to determine the unmet training needs regarding this concept. Quotations that supported the themes were as follows:

Participant 1003 said, "my knowledge about the concept of collaboration is that it requires multiple perspectives, and it requires consistent conversation, and it requires sharing of information between all parties."

Participant 1005 said: So, what goes into collaboration, the concept to collaboration. I am thinking where my mind goes in order to meet the disparities of these African American and I think it was Hispanic students' demographics meeting graduation rates or not meeting graduation rates. The concept around collaboration presupposes first goals, an awareness about the disparity through data, then a conversation about how this has been happening, who's involved, the major stakeholders.

Participant 1009 said: Well, in my view the concept of collaboration between both groups is that there should be a staff position available through the State education system where one staff is able to kind of be the point of contact from where they can get information back and forth…

Participant 1010 said: As I mentioned previously, collaboration on this type of issue we have two different skill sets in education and public health so in education they are the boots on the ground after school working with students…So, with public health we are there obtaining a lot of data we need to collaborate with education to see how we can use information and data we need to make a change.

Themes V for Education and Theme V for Public Health: Collaboration that Indirectly Affects High School Completion Rates for African American and Hispanic Students

The themes were similar for both the departments of education and public health. The themes were associated with research question 2. The participants from both cases provided an example of collaboration that may indirectly impact the high school graduation rates of African American and Hispanic students. Quotations that supported the themes were as follows:

Participant 1001 said: So, we have a project right now that looks at a multi-tiered system of support (MTSS) so, we work with public health entities and with federally qualified health centers (FQHCs), public health entities where we ensure that we have teams in our schools so that all the supports both academically, behaviorally are there…

Participant 1010 said: So, I would say the projects that I am most aware of in this field would be the Youth Risk Behavior Survey often referred to as YRBS. The CDC project based in the department of education and public health agencies, basically, to obtain health and behavior information at the high school level and even now starting at the middle school level…

Research Question 3

What are the barriers to collaboration between individuals in the public education and public health sectors to improve on-time high school completion rates for African American and Hispanic students?

Themes VI for Education and VII for Public Health: Organization, Structure, Staffing, and Location

The themes were associated with research question 3. It is important to know about the barriers that may hinder a collaborative effort between the departments of education and public health. The identification of barriers provides information on areas that need to be resolved for collaboration to take place. Quotations that supported the themes were as follows: Participant 1001 said, "I think one of the barriers is that at least in…we don't have diverse representation in our leadership in either the public health or education sector…"

> Participant 1005 said: … I think leadership perspective on change, this is the way its always been done kind of mentality in some sectors of administration or of political office holders to keep the status quo going for whatever their motivation of not rocking the boat or trying something new that keep us stagnant … I think teamwork training, professional development training and a lack of that is a barrier…
>
> Participant 1010 said: I would say the agencies are structured very differently so, that every school district in… is different that I worked with. They have different organizational structures and a lot of issues in … related to really, there is only one to three schools in our main school districts and the remaining are rural… is a very rural area and I think a lot of our lowest graduation rates are at those rural schools, and they don't have a local health department.

Themes VII for Education and VIII for Public Health: Funding Methods and Need for Funds

The themes were associated with research question 3 and represented a barrier to collaboration. It is important to know the barriers that can occur because of funding. This information provides direction for interventions to address the barrier. The perspectives from the participants provided insight into this funding barrier. It is noted that CDC and HRSA are currently awarding funding grants that require collaborative efforts between education and health. Quotations that supported the themes were as follows:

Participant 1001said: There is a barrier to braided funding. We still think independently, yes, we are part of the same state, but we are two different departments, we have two different ways of doing things so, all those things are over-comeable, but it is a mind shift…

Participant 1009 said: Oh yes, a barrier to collaboration would probably be the funding for this because many positions are involved already so there might be a need for a new position to be created for this that would most likely deal with funding.

Participant 1010 said: I would say the biggest barrier that I have noticed is that most of our funding from the state public health field comes from the federal government. So, we get the majority of our funding from agencies like CDC … So, I think directly funding the local health departments and the school districts would probably have a bigger impact.

Research Question 4

How do individuals in the public education and public health sectors view an ethical basis found in John Rawls's theory of justice and Amartya Sen's capability approach as reasons to use collaboration as a means to improve on-time high school completion rates for African American and Hispanic students?

Themes VIII for Education and IX for Public Health: Ethics used as a basis for deciding to collaborate to improve on-time high school completion rates for African American and Hispanic students

The themes were derived through analysis of codes from the participant transcripts, which were then categorized. The themes were also identified because of the relationship to research question 4. Both sectors believed that an ethical basis could be the rationale for collaborative efforts. Also, several participants felt that there should be a focus on equity. Quotations that supported the themes were as follows:

Participant 1005 said: Equality of opportunity between education and health to meet on-time high school completion rates. I think I could because collaboration between these two sectors would provide greater opportunity at school sites and throughout the community giving more access for all students and if it was designed specifically for that process. I think that the partnership would be justified and accepted to meet the need.

Participant 1009 said: Yes, I believe so because some schools don't have the same opportunities as others. When people in one community have access to certain

things there is the likelihood of graduating high school on-time increases, but if others

don't it is harder for them to complete high school on-time. So, equality is a big factor.

The themes were further enhanced when the participants provided their perspectives on

the use of combined efforts between the two public sectors as a means to improve on-time high

school completion rates and to reduce disparities in this area. Quotations that supported the

themes were as follows:

Participant 1001 said: The use of shared resources between the public health sector and

the education system in my mind is the walk of the talk of collaboration so, it is one thing

to talk about collaboration and to have some shared plans, but it is another thing to share

resources. It makes good sense. It's sustainable for sharing resources instead of you know

duplicating everything in our separate systems or silos, so for me the answer to that is

essential.

Participant 1010 said, … "I mentioned the YRBS, the Youth Risk Behavior Survey.

That's a strong collaboration by schools allowing public health to come in and administer these

surveys to students."

<div align="center">**Theme Differences**</div>

Department of Education

The difference in themes between the department of education and department of public

health were as follows: Theme III, participants' passion for the use of collaboration emerged for

participants from the department of education. The participants' responses specifically

mentioned their passion for the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. The participants from the department of public health responded in terms of what a collaborative effort might accomplish such as stating words to the effect that a collaborative effort would help anybody, or that would be a great initiative, and that there was a need to quantify the problem. One participant shared an experience observed in high school when there is not much value placed on graduation. None of the participants from the department of public health responded in terms of describing their specific passion or sentiments about the use of collaboration to improve on-time high school completion rates for African American and Hispanic students.

Department of Public Health

Several participants expressed their views on the need for privacy in sharing information about students between the departments at theme VI, privacy rules/regulations that impact collaborative efforts.

Participant 1008 said: … the only concerns you might get, especially, if you delve into it that is making sure that privacy is protected whether it's public health, there are certain standards to meet if they are going to share information across the individual students, individual kid's that privacy is maintained, …

Participant 1012 said: So, to have successful collaboration really you need to be able to measure the outcome of whatever it is you are attempting to do, and we run into issues. I

think FERPA is the educational equivalent to HIPAA for data sharing on these kids to get numbers …

The other different theme for the department of public health was theme III, data source and use. The theme was related to research question 1. The theme provided insight about the use of data in a collaborative manner to assist with identification of problems that impact on-time high school completion. Quotations that supported the theme were as follows:

Participant 1010 said: Some of the collaborations that I have been aware of I mentioned the YRBS, the Youth Risk Behavior Survey. That's a strong collaboration by the schools allowing public health to come in and administer these surveys to the students. It really helps probably our main source of data for high school students as far as their health behaviors and then we compare them to graduation rates…

Participant 1012 said: … the YRBS (Youth Risk Behavior Survey) is given to students but asks questions related to all things public health…I think because of the collaborations of systems such as YRBS, we can better direct our efforts to those students more efficiently.

Summary

This summary section provides an assessment as to whether the data analysis resulted in addressing the research questions. The purpose of this study was to examine the perspectives of individuals from a public education department and health department on the use of collaboration as a means to improve on-time high school completion for African American and

Hispanic students. The data analysis showed that the participants responded to the research questions as follows:

Research Question 1

How do individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students? Most participants from the two cases stated generally and specifically that collaboration between both sectors was essential and could be used to improve on-time high school completion rates for African American and Hispanic students. There were discrepant responses one each from each case that indicated that collaboration should be focused on students including low-income Caucasian students, students who experience ACEs, and all racial and ethnic students

Research Question 2

What is the understanding and knowledge that individuals in the public education and public health sectors have about interagency collaboration? Most participants provided their perspectives on the concept of collaboration and provided examples of interagency collaboration. All of the participants from the two cases provided their perspectives on their knowledge and understanding of the concept of collaboration. The department of education participants discussed specific processes involved with collaboration. The department of health participants did not discuss the specific processes involved in collaboration. The participants from the department of public health provided responses that were general and not as specific as the

responses from the department of public education. The participants also provided information about collaborative efforts that may indirectly impact on-time high school completion for African American and Hispanic students.

Research Question 3

What are the barriers to collaboration between individuals in the public education and public health sectors as a means to improve on-time high school completion rates for African American and Hispanic students? The perspectives on the barriers or concerns about collaboration are very critical to identify. Some of the barriers and concerns included funding issues, the use of data, organization, and structural issues. Participants from both cases provided their perspective on barriers and concerns that may hinder collaborative efforts. This information will provide information about the areas that need attention in order for collaboration to occur between the two departments in order to improve on-time high school completion rates for African American and Hispanic students.

Research Question 4

How do individuals in the public education and public health view an ethical basis found in John Rawls's theory of justice and Amartya Sen's conceptual framework, the capability approach, as reasons to use collaboration to improve on-time high school completion rates for African American and Hispanic students?

Participants from both cases expressed the belief that an ethical basis such as FEO as part of John Rawls's theory of justice could be used as the reason for deciding to collaborate to

improve on-time high school completion rates for African American and Hispanic students. Four of seven participants from the department of education also felt that equity should also be the basis for collaboration. Thus, they expressed discrepant views. One participant from the department of health provided the example that all students can have equal access to a quality education, but how that is carried out, the equity part is also critical to addressing improvements in on-time completion rates. Another participant from the department of public health spoke in terms of some school systems in the state have more resources and have better high school graduation rates than other schools. Participants from the department of education and health felt that a capability such as combining the resources of both departments could help to address the disparities in on-time high school completion rates. The application of the theory of justice and Amartya Sens's CA approach will be discussed in Chapter 5. The next chapter, Chapter 5 includes an introduction, an interpretation of the study findings, limitations of the study, recommendations, social implications, recommendations for practice, and the conclusion for this multiple case study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this multiple case study was to examine the perspectives of managers, supervisors, consultants, and professional staff in a public education department and a public health department, in the same state, regarding the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Healthy People 2020 defined on-time high school completion as completion of high school, with a regular diploma, within 4 years after entering the ninth grade. This case study was conducted to address the gap in the literature noted in Chapter 1 and add to the knowledge perspectives on the use of collaboration to address this complex problem. This study included two cases, a department of public education and a department of public health.

Summary of Key Findings

The key findings presented include the similar themes for each case, the department of education and the department of public health. The different themes for each case are also presented. The recommendations for further research and recommendations for practice are based on the themes.

Cross-Case Analysis- Department of Education and Department of Public Health

Similar Themes for the Department of Public Education/Department of Public Health

The participants from the departments of public education and health found generally that collaboration was essential to address the needs of the whole child. Participants from both

departments felt that collaboration can be used to improve on-time high school completion for African American and Hispanic students. One participant from the department of public education also felt that collaboration should be used to improve on-time high school completion rates for low-income Caucasian students and students that experience ACEs. One participant from the department of public health felt that collaboration should be directed at all races and ethnicities.

Participants from both cases expressed through collaboration, they could improve the use of data obtained from the National Youth Risk Behavior Surveillance System (YRBSS) survey, which is done annually at high schools by the department of public health. Participants from both departments felt that data could be used to quantify the risky behaviors that can influence the on-time completion rates for African American and Hispanic students. The data can be used by a public education department and public health department to identify interventions to reduce or eliminate the risky behaviors, and to track and monitor the effect on high school completion rates.

YRBSS was developed in 1990 to monitor the health behaviors that contribute significantly to the leading causes of death, disability, and social problems among youth and adults in the United States (CDC, 2018). These health behaviors are often established during childhood and early adolescence and include the following: (a) behaviors that contribute to unintentional injuries and violence; (b) sexual behaviors related to unintended pregnancy and sexually transmitted infections, including HIV infection; (c) alcohol and other drug use; (d)

tobacco use; (e) unhealthy dietary behaviors; and (f) inadequate physical activity (CDC, 2018). The YRBSS monitors the prevalence of obesity, other health-related behaviors, sexual identity, and sex of sexual contacts (CDC, 2018).

Both the departments of education and public health shared their views regarding the meaning and processes associated with the use of collaboration to address on-time high school completion rates. The department of education participants described specific collaboration processes. The department of public health participants shared their views on the meaning of collaboration and described the processes in general terms. The participants provided information on their level of understanding of collaboration, the need for leadership support, the need for diversity in leadership to ensure effective collaboration, as well as the need for professional development and training.

Participants from the departments of education and public health identified programs as a result of collaborative efforts that may indirectly impact efforts to improve on-time high school completion rates for African American and Hispanic students. There was no program that was identified that specifically focused on African Americans and Hispanic students aimed at improving on-time high school completion rates. Participants from both the departments of public education and public health work in organizational structures that result in siloed structures with each agency working, for the most part, independently to address similar goals and objectives for students in the same state. The state's greatest focus for collaborative efforts occurred in the urban centers of the state as opposed to the rural areas. According to a participant

from the department of public health the rural areas of the state have large dropout rates of high school students.

According to participants, more needs to be done at the federal funding level to promote collaborative efforts between departments of education and public health. The newer approaches to funding such as braided funding between these two departments would foster collaboration to improve on-time high school completion rates. Also, several participants from the department of education mentioned implicit bias as a barrier to collaboration and the need to have diversity in leadership in order to render decisions about collaborative efforts to improve on-time high school completion for African American and Hispanic students. Also, several participants from both the department of education and public health mentioned, language, time and resources, as barriers to collaboration between the two departments.

Participants from both departments felt that ethics could be used as a basis for deciding to use collaboration as a means to improve on-time high school completion rates. Participants from the department of education felt that the ethical basis found in John Rawls's theory of justice which focuses on fairness of equality of opportunity (FEO) could be used as a reason or foundation for collaboration between a department of public education and public health department. Participants from the department of education also expressed the view that the basis for collaboration should be focused on equity as opposed to only equality or FEO as a rationale for collaboration between the two departments. The participants felt, for the most part, a conceptual approach such as Amartya Sens' capability approach could be a basis for

collaboration because it would foster the use of collaboration between the two sectors to improve on-time high school completion rates.

Different Themes for The Department of Education/Department of Public Health

Theme III, participants' passion and or sentiments for the use of collaboration emerged only for the participants from the department of public education. Each participant from the department of education specifically expressed their passion or sentiment for the use of collaboration between the departments as a means to improve on-time high school completion rates for African American and Hispanic students. The participants from the department of public health focused on theme III, data source and use. They also focused on theme VI, privacy rules/regulations that impact collaborative. Several participants expressed concern about sharing data and the conflicts with the rules and regulations that govern privacy for students. Individuals in departments of education are required to adhere the provisions of the FERPA and public health is governed by the HIPAA. There is a need to identify the information that can be shared that will not jeopardize a state's compliance with these two federal requirements.

Interpretation of Findings

Collaboration

The review of the literature in Chapter 2 revealed that increasingly, collaboration is used to solve complex or wicked problems (Mayer & Kenter, 2016). Several authors advocated for joint efforts or collaboration between the education and health sectors to work together to improve high school graduation rates, particularly, for poor students, low income students, and

for ethnic and racial minorities (Allensworth, 2014; Allensworth et al., 2011). Participants from both cases expressed the view that collaboration between the department of public education and public health department was essential to meeting the needs of the whole child. Participants from both cases shared that collaboration between the two departments could assist in improving on-time high school high school completion rates for African American and Hispanic students. A participant from the department of education felt that collaboration should be used to improve on-time high school completion rates for all vulnerable students. A participant from the department of public health shared that the collaboration should also be focused on all races and ethnicities. Lewallen et al. (2015) discussed the WSCC approach that is based on collaborative efforts of a department of education and public health to improve the academic and health outcomes of children. Varda et al. (2012) argued that inter-organizational partnerships provide a means for public health agencies to obtain resources, and to share knowledge aimed at improvements of the health outcomes of a population.

Participants from both cases felt that collaboration was important. Miller-Stevens et al. (2016) added to the definition of collaboration, collaborative federalism. Miller-Steven et al. identified three governance structures of collaborative federalism: interagency collaboration, cross-sectoral, and grassroots that can be used simultaneously to address complex issues. The focus of this study was to obtain the viewpoints of individuals in a public education department and public health department on the use of interagency collaboration to address a complex

problem of improving the on-time high school completion rates of African American and Hispanic students.

The study participants expressed the perspective that collaboration between the departments of education and public health was essential and it could be used as a means to improve on-time high school completion rates for African American and Hispanic Students. Here are some of the perspectives from individuals from the department of education. Participant 1001 said, "my view on collaboration is that it's necessary if we are really going to make a difference for students in our care." Participant 1002 said, "collaboration is important. In fact, it is essential to produce realistic and actionable outcomes." Participant 1003 said, "okay, I believe that collaboration is key to getting work done efficiently, particularly, when complex problems need to be addressed that have multiple perspectives."

> Participants from the department of public health viewpoints were as follows: Participant 1010 said: So, for collaboration on this topic I think public health and education really do need to work together. From the public health perspective, especially, in the epidemiology field, we are obtaining a lot of health-related data that can possibly impact graduation rates for high schoolers. The findings confirm what is found in the literature review in terms of the use of collaboration between a department of public education and health as a means to address a complex problem such as improving on-time high school completion rates for African American and Hispanic students.

The Association between Education and Health

Participants from both cases, a department of education and department of public health expressed that they had knowledge about the association between education and health, and that each was important to the educational attainments and health outcomes for children. I discussed studies in the literature review section, Chapter 2, that show the relationship between educational attainment and improvements in health status. For example, the attainment of a high school diploma and further education reduces chronic diseases and increases life expectancy (Goldman & Smith, 2011). Bash (2011) presented five causal pathways that presented barriers to the ability to learn: (a) sensory perceptions, (b) the ability to learn and understand, (c) ability to engage and connect with individuals (social skills), (d) absenteeism, and (e) dropping out of school (2011). Lack of attendance by high school students was also attributed to health factors such as poor nutrition, substance abuse, and unintended pregnancies (Allensworth et al., 2011).

Bradley and Green (2013) identified six health risk behaviors and academic achievement: (a) violence, (b) tobacco use, (c) alcohol and other drug-related behaviors, (d) sexual behaviors, (e) physical inactivity, and (f) nutrition. Bradley and Green (2013) found that these risk factors were associated with a negative impact on educational achievement and not to a cause and effect relationship. These risk behaviors resulted in increased dropout rates of high school students. Participants from both cases identified these are risk behaviors found in the annual Youth Risk Behavior Surveillance System (YRBSS) survey. YRBSS was identified as a vehicle that could be used for improving collaboration between the two public sectors, and as a

means to better quantify and use the data to improve on-time high school completion rates for African American and Hispanic students.

A department of education and department of public health could use this information from the YRBSS to aggregate the results in terms of the identification of racial and ethnic subgroups. This identification could assist them in identifying and targeting interventions to reduce the risk behaviors. The information could also be used as a means to measure high school completion for African and Hispanic students in terms of the reduction of the risk factors. Both a department of education and department of public health could jointly develop the evaluation method to track African American and Hispanic students as it pertains to these risk behaviors and impact involving on-time high school completion rates.

I located recent information not included in the literature review at Chapter 2, which discussed the relationship between education and health. The publicized workshop summary of the IOM (2015) discussed the relationship between education and health as a means for collaboration to improve population health. Education was identified as a major determinant of health and that public health outcomes were dependent on educational attainment. The workshop experts discussed the interrelationship of education and health. The association of education and health provided a catalyst for collaboration between these two public sectors. The completing of high school and furthering one's education was found as a predictor for a healthier life and increased life expectancy (IOM, 2015, pp. 121-150).

Other benefits of education were discussed in terms of education leading to a better income, having a job that offers health benefits, and the development of cognitive and social skills (IOM, 2015). One participant from the department of education said, "educational attainment was the great equalizer to assist an individual to enjoy a healthier lifestyle and to obtain a better job." One participant from the department of public health said, "that high school completion and furthering one's education was important because, particularly, for high school completion because it sets the tone for an individual's livelihood throughout life."

In addition, Zimmerman and Woolf (2014, June), in an unpublished paper, presented a comprehensive perspective of the relationship between education and health. First, the authors discussed this relationship in terms of how health outcomes are affected by social factors, or the conditions under which we live. These factors are outside of health such as education, neighborhoods, and the ability to obtain nutritious foods, or to be employed, which affect an individual's health and life expectancy (Zimmerman & Woolf, 2014). The health benefits associated with more education included a higher income, the development of a range of skills and traits that allow individuals to make choices, and to understand how to live healthier lives for themselves and others (Zimmerman & Woolf, 2014).

Zimmerman and Woolf (2014) further discussed the health benefits of education at the community level. Here the authors focused on the benefits in terms of the resources that education brings such as the ability to live in a better neighborhood where there are quality schools, hospitals, and physical environments. The authors reiterated that educational

opportunities are not equally distributed in the United State. Zimmerman and Woolf (2014) also

discussed the linkage between education and health and the results of ACEs. These factors can

impact the learning ability of students and hinder educational attainment. The unpublished paper

by Zimmerman and Woolf (2014) provided a recent and comprehensive discussion of the range

of factors and conditions that show the association between education and health.

The findings of the study confirmed that there is an association between education and

health which support the need for a department of public education and public health to

collaborate in order to improve on-time high school completion rates for African American and

Hispanic students. The responses of the participants on their views about the use of collaboration

to improve on-time high school completion rates indicates their knowledge and understanding

about relationship between education and health.

Social Determinants of Health

One of the new objectives and targets introduced in Healthy People 2020 was AH-5.1 on-

time high school completion rates, graduation from high school, with a regular diploma, within

four years after entering the ninth grade (Healthy People 2020, 2016). The developers of Healthy

People 2020 identified SDOH as a means to track and monitor the progress of students in

meeting this objective by2020. The target, an aspirational objective, was set at 87 %. AH-5.1 was

used to set policy in terms of on-time high school completion rates for students. Disparities were

identified between on-time high school completion rates for African American and Hispanic

students when compared to Caucasian students. Daniels (2015) and Chapman (2015) argued that

SDOH are related to health outcomes and should be used to improve the health of a population. AH-5.1 serves as a proxy as a factor in determining both student attainment and improvements in health outcomes for adolescent students. Thus, SDOH such as AH-5.1 can be used as a framework for health policy and interventions to address the disparities. The participants of the study felt that collaborative efforts between the two public sectors could be used as a means to improve on-time high school completion rates for African American and Hispanic students. In addition, several participants felt that a collaborative approach should be used for all racial and ethnic groups, for low-income Caucasian students, and for students who experienced ACEs.

This raises the question if there should be targeted approaches in the use of collaboration to improve on-time high school completion rates. Because of the persistent disparities in on-time high school completion rates in the United States, consideration should be given to specific targeted interventions to reduce the disparities in this area. Healthy People 2020 also includes the concept of a twin or dual approach to health equity in terms of population-wide or universal approaches for interventions and targeted culturally tailored interventions to address chronic conditions in the population (Healthy People 2020, 2016). This approach could be applied to the identification of interventions targeted to improve on-time high school completion rates for African American and Hispanic students. The study findings help to confirm and extend knowledge about SDOH such as on-time high school completion rates in terms of addressing this issue based on collaboration between a public education department and a public health department.

Theoretical and Conceptual Framework

John Rawls's theory of justice is based on the concept of fairness is justice. In a just society, the least advantaged should benefit from the wealth or accomplishments of those who are advantaged in a society (Kelly, 2001; Rawls, 1971. The fairness is created out of balance of meeting the needs of private and public interest. For example, the institution of public education was established as a means to improve the conditions of the citizens of the United States. A society must provide for educational opportunities regardless of income. There is an ongoing need to ensure that public education provides the opportunity for all individuals to succeed in our society. John Rawls's justice theory introduced the concept of FEO in order to ensure that individuals with the same potentials will have the same educational and economic opportunities in spite of their social position such as income, i.e., whether they are wealthy or poor (Kelly, 2001, Rawls. 1971). Currently, there are inequalities in the United States at all levels of public education, kindergarten through the twelfth grade. One such inequality is the persistent disparities in on-time high school completion rates of African American and Hispanic students when compared to Caucasian students. Daniels (2001) argued that Rawls's theory of justice governs SDOH. Ruger (2004) recognized the overarching aspects of the justice theory but proffered that Sen's CA provided the necessary link to ensure that institutions work together, particularly, those that are outside of health to address inequalities in SDOH, to improve the health status of the population.

All of the participants from both cases expressed the view that an ethical basis found in Rawls's theory of justice could be used as a rationale for deciding to collaborate to address the problem of disparities in on-time high school completion rates for African American and Hispanic students. They expressed the view that the John Rawls's principle of FEO could be used as a rationale for deciding to collaborate to address this problem. In addition, several participants felt that the approach for using an ethical basis should also center around the aim for equity and not focus specifically on equality, but how resources are accessible and used to ensure that African American and Hispanic students graduate from high school on time. Participants from the department of education expressed their perspectives as follows:

> Participant 1005 said: equality of opportunity between education and health to meet on-time high school completion rates. I think I could because collaboration between these two sectors would provide greater opportunity at school sites and throughout the community giving more access for all students and if designed specifically for that process. I think that the partnership would be justified and accepted to meet the need.

> Several of the participants in the department of public health expressed their views as

follows:

> Participant 1009 said: When people in one community have access to certain things there is the likelihood of graduating high school on-time increases, but if others don't it is harder for them to complete high school on time. So, equality is a big factor.

Participant 1012 said: I think that to quantify any inequities that drive any dropout rates,

or the opposite of on-time high school completion rates obviously any inequalities drive

that, socioeconomic inequalities, racial inequalities, all kinds of inequalities are

obviously driving down high school completion …I think that collaboration is

necessary because you are not going to have one department of government, for

example, that is going to be able to address all those inequalities.

Amaryta Sen's CA is a conceptual framework that I used in this study as an ethical basis

for analyzing the use of collaboration to improve on-time high school graduation rates for

African American and Hispanic students. The application of the CA is as follows:

I used seven core items of the CA to assess a department of public education and a

public health department in terms of the use of a capability, such as collaboration as a means to

improve on-time high school completion rates for African American and Hispanic students

when compared to Caucasian students. The first criterion, the freedom for individuals to achieve

well-being is understood in terms of an individual's or society's capabilities. The capabilities are

the various states of human beings and functionings are activities that a person can undertake as

a result of his/her capabilities (Robeyns, 2011). I used collaboration as the capability to review.

Participants from both cases expressed the perspectives that collaboration could be used as a

means to improve on-time high school completion rates for African American and Hispanic

students. Participants from a department of education identified specific processes for

implementing collaborative efforts. Participants from the department of public health shared their perspectives on the meaning and processes involved in collaboration in general terms. The second criterion refers to a metric for interpersonal comparisons in terms of capabilities and functions or what individuals and society can achieve, i. e., what actually is accomplished based on achievements (Robeyns, 2011; Sen, 1999, pp. 17-21). The concept of functioning is what an individual or society can do with its capabilities. The participants from both cases identified barriers and concerns to effective collaboration between a department of public education and department of public health to achieve the actual functioning of collaboration to improve on-time high school completion rates for African American and Hispanic students. Some of the barriers include the following: (a) funding issues, (b) use and sharing of data, specifically data from the YRBSS; (c) organizational, staffing, and location issues; (d) the need for professional development and training on collaboration; (e) issues of time and use of resources to collaborate; and (f) privacy issues. These barriers would need to be addressed before collaboration can be implemented. The participants' perspectives provide preliminary information about the status of each in terms of using a capability such as collaboration. The third criterion of the CA refers to the means and ends distinction. According to Robeyns (2011), there are two advantages for focusing on ends rather than means: first, is the valuation of the means will retain the status of an instrumental valuation rather than what it means internally to the person. For example, money or economic growth will not be valued for their own sake, but only in terms of how money and economic growth can contribute to an expansion of a person's capabilities. Second, by focusing

on the ends, we do not assume that there is only one critical means to an end such as income. This criterion cannot be assessed. The participants from both cases have not experienced the use of collaboration in order to achieve a function such as improving on-time high school completion rates for African American and Hispanic students. Both cases can strive to meet the goal by identifying this as a goal and resolving the barriers that prevent the achievement of the goal. The fourth criterion of the CA concerns the conversion factors that provide insight about the changes needed in resources and the allocation of resources to make improvements to individuals and society. This goal cannot be assessed at this time because the two cases have not used collaboration or actual achievement of collaboration to address the disparities in on-time high school completion rates. The fifth factor concerns the acknowledgement of human diversity. CA takes account of human diversity in at least two ways: (a) by a focus on the plurality of capabilities and functionings as important for wide range of dimensions in the interpretation of well-being and well-being outcomes; and (b) human diversity is emphasized by the focus on personal, environmental, and social factors that make possible the conversion of commodities and other resources into a function such as improvements in on-time high school completion rates for African American and Hispanic students. This criterion cannot be assessed until the capability of collaboration is achieved between a public education department and public health department. The sixth criterion refers to basic capabilities. This term has evolved from the freedom to do some basic things considered necessary for survival and to avoid or escape poverty to look at capabilities in affluent countries that would also focus on capabilities that are

less necessary for survival. This criterion cannot be assessed because the basic capability has not

been turned into a function to improve on-time high school completion rates for African

American and Hispanic students. Finally, the seventh criterion refers to capabilities as freedoms.

Robeyns (2011) acknowledged that there are many kinds of freedoms that include valuable,

detrimental, and trivial freedoms. The study results do not provide an assessment of this core

item because collaboration as a capability has not resulted in the functioning of both cases to

improve on-time high school completion rates for African American and Hispanic students. Both

cases would need to identify this achievement as a goal.

Some of the perspectives of the participants on the use of combined resources were as

follows:

Participant 1001said: The use of shared resources between the public health sector and

the education system in my mind is the walk of the talk of collaboration so, it is one thing

to talk about collaboration and to have some shared plans, but it is another thing to share

resources. It makes good sense. It's sustainable for sharing resources instead of you

duplicating everything in our separate systems or silos, so for me, the answer to that is

essential.

Participant 1003 said: I think that's something that we need when I say we, I mean we

need all public health and the department of education need to begin looking at it a little

differently when you talk about resources. The first thing that comes to mind is funding.

So, some of the efforts that our office is looking at now is how to braid some of that

funding between both departments because we have a common need, but it maybe that our resources are not distributed equally so, for instance maybe looking at a shared staff or provide a service and … that's the art of collaboration is that you actually don't just talk about it you do something about it …

Participant 1005 said: A partnership between education and the health sectors will help us to address the emotional, psychological, behavioral, and physical wellness of the student for them to come to school on time, prepared and equipped to learn throughout the day and then apply themselves and moves toward graduation.

Participant 1012 said: I think it is naïve to think that education, that on-time high school completion rates are the job specific to the department of education … So, I think working together is necessary. I think that we see very definitely that things like high school graduation rates are directly related to the world of public health.

It may be useful to consider the use of CA as a framework to address disparities in on-time high school completion rates.

Limitations of the Study

One of the limitations of the study was the limited number of individuals from the public health sectors included in the study who had experience with collaboration with the department of public education. There may be individuals who can influence the use of collaboration to improve on-time high school completion rates for minorities who may have been omitted from the study. Most of the participants from the department of education had experiences of indirect

collaborative efforts to improve on-time high school completion for minority students, with the department of public health. The participants from the department of education were involved with collaborative efforts with the department of public health. The public health participants were from three units other than the one that worked with the department of education. I attempted several times to obtain participants from that unit. There was interaction with the department of education on the conduct of the Youth Risk Behavior Surveillance System (YRBSS) survey to identify the risk behaviors of high school students. The use of data from the YRBSS could be used as a starting point to specifically address the disparities in on-time high school completion rates. The other limitation of the study was only one state participated in the study and met the criteria that a department of education and department of public health were from the same state.

Recommendations

As a result of the findings of this study there are three recommendations for on-going research. First, there is a need to conduct research on the type of leadership and need for diversity in leadership in the education department and public health department in making decisions on improving on-time high school completion rates for African American and Hispanic students. For example, here is a question that can be addressed by such a study. What are the leadership traits that are needed that foster collaborative efforts and inclusion or diversity of the decision makers? Second, there is a need to conduct research on the blending and braiding of funds by the two public sectors, the departments of education and the departments of public

health, to support collaborative efforts to improve on-time high school completion rates for

African American and Hispanic students. The research is needed to better understand the use of

blended or braided funds by the education and public health departments. Research is needed to

reduce the duplication of efforts between the two public sectors. This blending and braiding of

funds should be used at the federal, state, and local levels. The United States DHHS defined

braiding of funds as the means of combining funds from different sources to support an

individualized set of services so that expenditures from each source can be tracked and applied to

specific individuals eligible for that funding (DHHS, no date). Third, there is a need to conduct a

meta-analysis research study on targeted programs such as Step-Up to identify evidence-based

best practices in improving high school completion rates for African American and Hispanic

students.

Social Change Implications

The potential impact of this study was the findings increase the awareness of individuals at the

federal, state, and local levels of the importance of collaboration between a department of public

education and department of public health, to improve on-time high school completion rates for

African American and Hispanic students. Participants in this study shared their perspectives on

collaboration in terms of the importance and barriers to collaboration. This information raised

awareness about the barriers and processes that need to be implemented to reduce the barriers

that impede the use of collaboration between the two public sectors. If the barriers are reduced or

eliminated to collaboration by a department of public education and public health department,

this may have impact by improving the on-time high school completion rates for African American and Hispanic students. The implications for social change may be to increase the awareness for a public education department and public health department to routinely work in collaboration to improve on-time high school completion rates of minority and other vulnerable students.

Recommendations for Practice

The recommendations for practice are discussed in terms of some of the results of the cross-case analysis that should be considered are as follows: (a) a public education department and public health department should consider the development of a goal that is specific to the use of collaboration to improve on-time high school completion for African American and Hispanic students. Other vulnerable students could be included in this goal; (b) the resources needed to meet the goal should be developed by both departments; (c) training should be conducted to meet the needs of both departments on the concept of collaboration, its meaning and processes; (d) the barriers to collaboration should be used as areas to address to ensure effective collaboration; (e) once the specific goal is identified, metrics need to be identified by both departments to track and monitor the status of reducing disparities in on-time high school completion; (f) the CA should be considered as a framework to meet the goal of reducing disparities in on-time completion rates for African American and Hispanic students; (g) there should be some consideration of using a targeted approach to address the need to improve on-time high school completion rates

for African American and Hispanic students. Targeted approaches are supported in a brief review of the literature are as follows:

Parchment, Jones, Del-Villar, Small, and McKay (2016) conducted an exploratory study of youth of color to examine the grade-point average (GPA) before involvement in Step-Up and the number of Step-Up groups attended by the youth during their first year to determine the impact on high school achievement. The educational attainment was measured by their grade-point averages (GPA). There were several limitations to the study, the sample size and the use of GPA as the metric. The findings revealed that programs that assist young people of color to improve their GPA should acknowledge the multiple stressors that affect the ability to learn. Also, the study found that programs that include the input of youth of color, such as Step-Up might provide better results for high school achievement. The program support for Step-Up focused on mental health support.

Hernandez and Sanchez (2017) presented, in a research brief, an overview of the African American disparities in high school completion in New Mexico. The research brief on this subject served as the backdrop to the consideration of reforms to their educational system. The authors felt it was the right time to examine the educational outcomes among New Mexico's African American population that represented 3.1% of the state's overall population. High school graduation rates were one of four areas of exploration. Although there were increases in high school graduation rates for all racial groups between the period between 2010-2014, African American students' high school graduation rates were 64.3%; Hispanic students 67.6%

compared to 85.5% for Asians, and 75.7% for Caucasian students. Recommendations made from the review of African American disparities in New Mexico suggested a need to focus on targeted interventions.

Addis Withington (2016, September) discussed in their issue brief the economic cost of not completing high school among students of color, the dropout risk factors pertinent to males of color; and identified effective dropout prevention strategies for males of color. The authors found that increased high school rates will occur when schools and community-based entities collaborate to implement focused strategies as a prevention effort and remedial approach to reduce the high school dropout rate.

DePavli, Bulfanz, Atwell, and Bridgeland (2018, pp. 47-48) discussed in the annual report entitled building a grad nation: Progress and challenges in raising high school graduation rates, the need for state plans specific for each state for improving the high school graduation rate and called for implementing customized evidence-based approaches that are critical to ensuring that all students graduate on-time and are prepared for post-secondary success. These examples show there is a need to strongly consider a focused or targeted approach to improve the on-time high school graduation rates for African American and Hispanic students when compared to Caucasian students.

Finally, the last recommendations did not evolve from the study findings but may be considered by a department of education and department of public health. It is recommended that a department of education and department of public health develop preventive measures that

impact on-time high school completion rates and develop interventions around those prevention measures. In addition, it is recommended that a department of education and department of public health, as appropriate, consider the use of strategic communications between the two public sectors as a means for raising the awareness about the importance of collaboration to improve on-time high school graduation rates for African American and Hispanic students (IOM, 2015). There may be a need to raise the awareness of individuals about the recognized association between education and health so that the two entities can improve their collaborative efforts. These recommendations were from the IOM workshop summary entitled exploring opportunities for collaboration between health and education to improve population health (2015).

The activities of Steven H. Woolf and his colleagues were reported in the workshop summary (IOM, 2015). They addressed the need to break down the barriers between public education and health. Woolf and his colleagues developed the following strategies aimed at improving communications between education and health. Three audiences were identified. The first comprised of individuals from these two sectors where there was the lowest level of awareness about the relationship of education and health (IOM, 2015). The second group understood that there was a relationship between health and education, but it was not important. Their focus was on education reform and health reform (IOM). The third group was comprised of individuals who completely understood the relationship between education and health. The goal of this group was the development of an evidence-based action plan that addressed

collaborative efforts between these two groups (IOM). The outcome of improved communications should result in a formal way to support collaborative efforts between a department of education and department of public health, and to start discussions on how to improve on-time high school completion rates for African American and Hispanic students.

Conclusion

The perspectives of participants from a department of education and a department of public health from the same state revealed that collaboration between these two public sectors was essential to meet the needs of the whole child. Collaboration can be used as a means to improve on-time high school completion rates for African American and Hispanic students. There are barriers that need to be addressed in order for collaboration to occur and to be sustainable. The barriers are not insurmountable. Recommendations for practice are identified to reduce barriers and to foster collaboration between the two public sectors. Recommendations are also aimed at further research to increase collaboration between an education department and public health department. The recommendations are offered because of the persistence in disparities in on-time high school graduation rates between African American and Hispanic students when compared to Caucasian students in the United States. In speaking about the importance and use of collaboration from an emotional standpoint on the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic one quotation was as follows:

A participant from the department of education said: … I am well from an emotional standpoint I feel it is critical and way past due for these types of relationships and collaborative initiatives to happen. I feel that the absence of this collaboration has cost our nation significant progress and advancement, has kept us stagnant and at the status quo. From an emotional perspective on collaboration to get these students to graduation, I feel that we have done a disservice to the students in the last decade since we have the knowledge of its significance and its impact in achieving common goals to help students learn and develop ….

On the importance of completing high school, the following was stated by a participant from the department of public health:

The participant said: I think collaboration from the perspective of like just teaching kids, like going to school is not just to go to school. Going to school [completing high school] is something that contributes to all these other things in your life …

The same participant also said: … "that high school completion and furthering one's education was important because, particularly, for high school completion because it sets the tone for an individual's livelihood throughout life."

The statements above by several participants provide the focus or reason for this study-to examine the perspectives of individuals from a public education department and public health department on the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students.

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Appendix A: Letter to Partners

Dear

Sometime ago I introduced myself as a doctoral candidate student at Walden University, School of Health Sciences. My field of interest is Health Policy and Management. This is in follow up to ask for your assistance to find participants for my qualitative research case study to explore the perspectives of individuals in the public education and public health sectors on how they view the use of collaboration to improve on-time high school completion rates for African American and Hispanic students. Healthy People 2020 introduced for the first time a new social determinant of health, on-time high school completion for students in the United States. On-time high school completion is graduation from high school within four years after entering the ninth grade. This new social determinant of health will be used to monitor and track the health status of the United States adolescent population.

I would appreciate your support and assistance by posting and sending the enclosed Flyer for me to obtain volunteer participants for this study. In the Flyer, I request that volunteers contact me directly. At the point of contact, I will explain the study and the informed consent to ensure confidentiality. I will explain other procedures, such as the need to participate in an audiotaped telephone interview for approximately one hour. The interview will include ten open-ended questions. I also will present them with a short demographic survey to be returned to me two days before the scheduled interview. Also, I will request that they participate in follow up,

which is to review the transcribed interview to ensure the accuracy of their statements. I will include directions for providing information if they want the results of the study findings.

I am looking for volunteers who comprise the professional management and staff who have input and responsibility to ensure on-time high school completion within four years after entering the ninth grade or have an interest in improving on-time high school completion rates within their state. The volunteers should be individuals who have some or no experience in collaborative efforts with either a public education or a public health entity. Participation in this research may help to inform federal, local, and state officials on the perspectives of individuals in the public education and public health sectors on how they view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students in the United States. I would appreciate your response within two weeks of the receipt of this letter. If there are any questions, please do not hesitate to contact me by telephone at XXX-XXX-XXXX or by e-mail at claudette.campbell@waldenu.edu

I would appreciate it if you would share your organizational chart and any documentation that contains information on efforts to collaborate to improve on-time high school completion rates.

Thank you for your prompt attention to this matter.

Sincerely,

/s/

Claudette V. Campbell, RN, MSN, MPH

Appendix B: Research Study Flyer

Research Study Title: Public Education/Public Health Perspectives on Collaboration- Influence on High School Completion Rates

Attention: Individuals in Public Education and Public Health

COLLABORATION

The continued disparities in on-time high school completion rates between African American and Hispanic students when compared to Caucasian students in the United States are concerning. If you have interest in improving on-time high school completion rates, you are invited to participate in an academic research study designed to explore your perspectives on the

use of collaboration between individuals in the public education and public health sectors, to improve on-time high school completion rates.

You are invited to participate in this academic study if you are part of the management, supervisory, or professional staff, have experience, decision making responsibilities, or have an interest in improving on-time high school completion rates in your state. Please contact me at XXX-XXX-XXXX or e-mail me at claud8@earthlink.net.

I will explain the study and how I will ensure the confidentiality and privacy of your information. I would like to arrange for an audio-taped interview which includes ten standards open -ended questions. The interview will take approximately one hour or less. Prior to the interview, I shall send you a brief demographic questionnaire to complete and the informed consent for your review and signature. I will request that the questionnaire and e-mail attesting consent be e-mailed to me two days before the scheduled interview. Thank you for your interest and participation.

Claudette Campbell, RN, MSN, MPH

Doctoral Student, Walden University

Appendix C: Screening Questions for Participation in the Study

I would like to ask you several questions to ensure that you meet the selection criteria for the study.

Please state your name.

What is your job title?

_____

Do you work at the State Department of Education or Public Health?

Do you work as a manager, a supervisor, consultant, or staff professional?

Do you have decision making responsibilities for improving on-time high school completion rates for students in your state?

_____

Or, do you have an interest in improving on-time high school completion rates for your state?

_____

Please state your main language for communicating and understanding what is stated.

Thank you for your responses. You meet the criteria.

Thank you for your responses, I regret that you do not meet the criteria for this study. Thank you for taking the time to answer the screening questions (I will briefly share the reasons).

Now, I will return to a discussion of the informed consent form.

Appendix D: Research Study Demographic Questionnaire

Name: _____

Name of Organization, City, State:

_____

_____

_____

Gender:
☐ Male
☐ Female

Race Ethnicity:
☐ White
☐ African-American
☐ Hispanic
☐ Asian
☐ Other
_____

Education:
☐ High School Diploma
☐ Associate Degree
_____ (area)
☐ Undergraduate Degree
_____ (area)
☐ Master's Degree
_____ (area)
☐ Doctorate Degree
_____ (area)

Age Range:
☐ 21 – 30
☐ 31 – 40
☐ 41 – 50
☐ 51 – 60
☐ 60 and over

Years-on-the-job:
☐ 1 – 2
☐ 3 – 6
☐ 7 – 10
☐ 11 – 15
☐ 16 and over

Occupation: _____

_____

Telephone Number: _____

Email: _____

Appendix E. Interview Protocol and Interview Questions

Introduction

The purpose of this qualitative case study is to examine the perspectives of individuals in the public education and public health sectors on how they view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students. Collaboration is defined as the process that brings individuals, agencies, and organizations that traditionally work separately to work together to address a complex problem. Collaboration is either voluntary or mandatory. Also, collaboration is defined as collaborative federalism viewed through three areas of governing: interagency, cross sector, and at the grassroots level. Collaboration serves as the model for operating (Miller-Stevens, et al., 2015). The focus for this study is on interagency governance which applies to public sector agencies, institutions, at the national state, and local levels. The aim of interagency collaboration is to develop, implement, and regulate federal policies at the federal, state, and local levels. The potential social implication of this study is it may raise awareness about the need for individuals in the public education and public health sectors to use collaboration as a means to improve on-time high school completion rates for minority students.

There are disparities in on-time high school completion rates between African American and Hispanic students when compared to Caucasian students in most states, including the District of Columbia. Healthy People 2020 introduced for the first time a social determinant of health, on-time high school completion within four years after entering ninth grade. This social

determinant of health was implemented in 2012 and will be used to monitor and track the health status of adolescents in the United States. Also, this social determinant of health shows the association of education and health and the impact on health status.

Your input will provide valuable information on how you view the use of collaboration between the public education and public health sectors as a means to improve on-time high school completion rates of African American and Hispanic students. This interview will consist of ten open-ended questions that will be audio-taped and transcribed. The transcriptions will be sent to you to check for the accuracy of your statements. The interview is via telephone and will take approximately one hour, or less.

The first set of questions relate to how individuals in the public education and public health sectors view the use of collaboration as a means to improve on-time high school completion rates for African American and Hispanic students.

Share with me your thoughts/views about collaboration.

Share with me your thoughts/ views about collaboration between individuals in the public education and public health sectors as a means to improve high school completion rates for African American and Hispanic students.

Please describe your own feelings from an emotional standpoint about the use of collaboration as a means to improve on-time high school completion for African American and Hispanic students.

The second set of questions relate to your understanding and knowledge of individuals in the public education and public health sectors regarding collaboration?

Share your knowledge about the concept of collaboration as a means to address a problem such as the disparities in on-time high school completion rates.

Please share your impressions of any collaboration that you are aware of between the public education or public health sector as a means to improve on-time high school completion rates.

The third area of questions concerns your thoughts on barriers to collaboration between the public education and public health sectors as a means to improve on-time high school completion for African American and Hispanic students?

Describe any barriers/constraints that you envision to the use of collaboration between public education and public health individuals as a means to improve on-time high school completion rates for African American and Hispanic students.

Share your concerns about the use of collaboration to address on-time high school completion rates by individuals in the public education and public health sectors.

Let's discuss the use of ethics as a platform for collaboration. For example, the idea of fair equality of opportunity, refers to the establishment of equal opportunities of education for everyone regardless of family income.

Please share your thoughts about the concept of fair equality of opportunity as a reason for deciding to use collaborative efforts between public education and public health to address disparities in on-time high school high school completion rates.

Another ethical basis for decision making about the use of collaboration concerns how resources are organized in society that will assist individuals to achieve basic capabilities such as education. Please share your thoughts on the use of combined efforts between the public education and public health sectors to increase a capability such as education, and in this case, on-time high school completion, to reduce disparities in this area.

The final question is to find out if there are any other comments that you would like to make on the use of collaboration between the public education and public health sectors as a means to improve on-time high school completion rates for African American and Hispanic students.

Please share any other thoughts that you have about the use of collaboration between individuals in the public education and public health sectors as a means to improve on-time high school completion rates for African American and Hispanic students.

Thank you for participating in this study. I will send you a transcript of this interview and ask that you review and modify as necessary to ensure that your statements are accurately transcribed. Please return your comments within two weeks of receipt.

Appendix F: Permission Letter

Dear Ms. Campbell,

I am writing in response to your request to use the survey instrument that was developed by the Federal Reserve Bank of Minneapolis, in partnership with Wilder Research, for use with our study on cross-sector collaboration to build healthier communities.

The Federal Reserve Bank of Minneapolis is willing to grant you permission to adapt this instrument for use with your study on collaboration to improve on-time high school graduation rates for Black and Hispanic students in the United States, with the caveat that you include a citation that credits the authors of the original instrument in your list of works cited. Suggested language for that citation is included below.

The new survey instrument that you create will differ in substantial enough ways that we cannot comment on its validity or reliability- you will need to make that determination on your own accord.

We are glad that the items from our survey can be useful in furthering research that can be used to help improve educational outcomes for students of color and wish you the best of luck with completing your doctoral dissertation!

Sincerely,

Michael Grover

Assistant Vice President of Community Development

Federal Reserve Bank of Minneapolis

Suggested citation: Rausch, E.J and Mattessich, P.W. "Collaboration to Build Healthier Communities"

Survey. Unpublished. Federal Reserve Bank of Minneapolis and Wilder Research, January 2013.

Retrieved, June 2016.