STUDENTS OF COLOR AND COLLEGE UNDERMATCHING: COUNSELORS, CONNECTIONS, AND COLLEGE CHOICE

by
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Abstract

College undermatching occurs when high-achieving students from low-income backgrounds apply to or enroll in less selective postsecondary institutions despite meeting the academic criteria. Students of color tend to college undermatch due to lack of college preparation materials and resources, socioeconomic status, and meaningful engagement with school counselors. Although the phenomenon of college undermatching is not new, the term is unfamiliar to some college admission counseling professionals. College admission counseling training is rarely a requirement in school counseling graduate programs. Because of this, a mixed-methods study was created to expand pre-service counselors’ college undermatching and college counseling knowledge. Four pre-service counselors from two mid-Atlantic universities participated in the virtual professional learning community. The College Counseling Knowledge Instrument, Session Feedback Survey, Professional Learning Experience Survey, and semi-structured focus group were used to collect data about pre-service counselors’ college undermatching and college counseling knowledge as well as their experiences in a virtual professional learning community. Although the sample size was small, the mixed-methods study provided pre-service counselors with new information to add to their college undermatching and college counseling knowledge. In addition, the participants engaged with and learned from each other. Even though the results of the intervention may not be generalizable to all pre-service counselors, the results indicate that pre-service counselors can benefit from college admission counseling training.

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Dedication

This dissertation is dedicated to my grandmother, Helen Louise Matthews, who passed away on my 19th birthday. She was a fervent server to others, and she is the reason why I have so many shoes. I miss and love you.
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Executive Summary

Research suggests that obtaining a college degree has positive implications for upward social mobility and students who receive a four-year degree earn higher socioeconomic status (SES) levels than those who either enroll in a two-year institution or do not enroll in college at all (Brand & Xie, 2010; Hill, Bregman, & Andrade, 2015; Long & Kurlaender, 2009). Yet, students of color, particularly African American and Latino students, are underrepresented in higher education (Howard, 2003; Martinez & Cervera, 2012) and tend to graduate from high school and obtain a bachelor’s degree at lower rates than their White peers (Cox, 2016; Dyce, Albold, & Long, 2013). Research also indicates that enrollment at a selective postsecondary institution provides many advantages for African American and Latino students, but they remain underrepresented in those spaces (Bowen, Chingos, & McPherson, 2009; Hill et al., 2015). Enrolling in more selective postsecondary institutions includes benefits such as higher graduation rates and financial earnings, as well as higher overall life satisfaction (Dale & Krueger, 2002; Espanshade & Radford, 2009; Hill et al., 2015). However, African American and Latino students tend to enroll at less selective colleges and universities despite meeting the criteria to do so (Roderick, Coca, & Nagaoka, 2011). This phenomenon is known as college undermatching (Hill et al., 2015; Hoxby & Avery, 2013). College undermatching occurs when high-achieving students from low-socioeconomic status households apply to and enroll in less selective postsecondary institutions despite meeting the academic criteria for admission (Bastedo & Flaster, 2014; Black et al., 2015; Hoxby & Avery, 2013; Lowry, 2017).

College Undermatching: A Problem of Practice
Within the next ten years, it is estimated that students of color will comprise about half the population in public schools (Welton & Martinez, 2014). Despite this growth, students in this population still experience low college enrollment rates (Cox, 2016; Perna, Rowan-Kenyon, Thomas, Bell, Anderson, & Li, 2008). Moreover, high school students of color tend to college undermatch (Hill et al., 2015; Roderick, Coca, & Nagaoka, 2011). Some factors that contribute to college undermatching for students of color include access to college preparation information such as completing college applications and understanding the financial aid process (Belasco & Trivette, 2015; Cox, 2016; Roderick et al., 2011; Woods & Domina, 2014), low-socioeconomic status (SES) (Bastedo & Jaquette, 2011; Cox, 2016; Pallais, 2015), and meaningful engagement with their school counselors (Corwin, Venegas, Oliverez, & Colyar, 2004; Hubbard, 1999).

**Access to College Preparation Resources**

The college admission process can be confusing and overwhelming for students in general. Although students of color demonstrate college aspirations, access to college-going information and resources can present some challenges. For example, students of color, at times, do not fully understand the college admission process such as applying for financial aid (Valadez, 2008) which can result in incomplete paperwork and missed deadlines (Castleman, Arnold, & Lynk Wartman, 2012). In addition, students of color typically have to navigate the college pipeline in high-poverty high schools that are under-resourced and offer few advanced classes (Welton & Martinez, 2014). Furthermore, first-generation students of color tend to navigate the college search process on their own because their parents do not feel comfortable or possess the foundational knowledge to assist them (McCafferty Jarsky et al., 2009; Museus, 2011). Because
parents of first-generation students did not attend nor graduate from a postsecondary institution, they have a difficult time assisting their children through tasks such as completing a college application, filing the Free Application for Federal Student Aid (FAFSA), and submitting the appropriate fees to confirm a space in the incoming freshman class or secure housing accommodations (Museus, 2011). These tasks are critical to the college admission process and not completing them can be detrimental to the student and their future at a postsecondary institution.

**Socioeconomic Background and Accessing Postsecondary Education**

Only 51% of students from low-SES backgrounds matriculate to college directly after high school compared to 82% of students from affluent families (Black et al., 2015). In addition, Hill and Winston (2010) note that of 28 of the United States’ most selective institutions, only 10% of enrolled students are from the bottom 40% of the family income distribution. Furthermore, Palardy (2015) suggests that students who attend schools with a high socioeconomic composition (SEC) are four times more likely to enroll at selective institutions when compared to their low-SEC peers. Typically, low-SES students tend to view college as an excessive expense and hence, do not take the necessary steps to secure financial support (Tierney & Venegas, 2009). Financial support can be in the form of applying for institutional scholarships or filing the FAFSA to receive financial aid from state and federal governments. Though selective postsecondary institutions traditionally have higher tuition costs than less selective institutions, students from low-SES backgrounds do not know the financial benefits of attending a selective institution (Belasco & Trivette, 2015). These students often do not understand that selective
institutions tend to have institutional funds to assist students from low-SES backgrounds where the student amasses little to no out-of-pocket expenses (Hoxby & Turner, 2015).

**Connecting with the School Counselor**

Research suggests that school counselors serve as gatekeepers of college preparation information for many students (Belasco, 2013; Perna et al., 2008), but many school counseling graduate programs do not require a college admission counseling course as part of their curriculum (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Savitz-Romer, 2012a). In addition, high student-to-counselor ratios can influence how much college counseling is available to students (Clinedinst & Patel, 2018). The American School Counselor Association (ASCA) and the National Association for College Admission Counseling (NACAC) (2018) released a report that examined the ten-year trend of student-to-counselor ratios by state. The report indicated that the national student-to-counselor ratio is 482:1 in public schools. ASCA recommends that schools should aim for an average student-to-counselor ratio of 250:1 (ASCA & NACAC, 2018).

Furthermore, school counselors are often tasked with a multitude of responsibilities outside of college counseling (Gilfillan, 2018; Kimura-Walsh, Yamamura, Griffin, & Allen, 2009; McDonough, 2005; Savitz-Romer, 2019). School counselors’ workloads have steadily increased since the 1970s, but unfortunately, responsibilities have not taken away making it difficult for school counselors to effectively do their jobs (McKillip, Rawls, & Barry, 2012). In addition to postsecondary education planning, school counselors are trained to provide students with academic and mental health support (Savitz-Romer, 2019; West, 2020; Woods & Domina, 2014).
NACAC’s 2018 State of College Admission report found that public school counselors spent 21% of their time on college counseling compared to 54% of private, nonparochial school counselors (Clinedinst & Patel, 2018). The report also notes that counselors who work in schools with a high number of students on free and reduced-lunch tend to spend less time on college counseling (Clinedinst & Patel, 2018).

**Collecting Evidence through a Needs Assessment**

To further understand the contributing factors of *college undermatching*, the researcher adapted and administered a mixed-methods survey to examine school counselors’ *college undermatching* knowledge, as well as examine the extent to which high school counselors perceive their ability to effectively provide college counseling to students of color. Seventy-nine public high school counselors completed the survey, of which 80% have been in the school counseling profession for ten or more years. Many needs assessment participants demonstrated an understanding of *college undermatching* and identified some of the contributing factors. In addition, most school counselors acknowledged that creating a college-going culture in their schools was supported by administrators but indicated their workloads do not allow enough time to dedicate to college counseling. The counselors were also on the fence about their role in the college counseling process. Furthermore, many of the school counselors who completed the survey indicated they encourage their students to take college prep and advanced level courses as well as provide their students with college search information and resources such as Naviance and financial aid workshops.

**Developing an Intervention for Pre-Service Counselors**
Because pre-service counselors receive little to no college admission counseling training (Savitz-Romer, 2019; West, 2020), it is necessary to identify an appropriate intervention to provide them with this information. The needs assessment findings and literature review informed the creation of a professional learning community (PLC). Hipp and Huffman (2010) posit that PLCs are the most productive form of continuous learning while Boud and Hager (2012) suggest that professional learning is “something that continues across the various stages of a professional career” (p. 20). A virtual professional learning community was chosen as the intervention because pre-service counselors could participate within their own environment. The intervention took place over a three-week period during the spring semester because that is usually the time high school juniors begin to immerse themselves in the college search process. In addition, pre-service counselors are generally completing their field experiences during the spring semester. Booth and Kellogg (2015) suggest that participating in an online community provides immediate value to educators because they may feel isolated in their position. As such, participation in an online community affords professionals the opportunity to share and receive valuable pieces of information as well as offer encouragement (Hur & Brush, 2009).

**Implementing the Intervention**

The virtual professional learning community sought to add to pre-service school counselors’ *college undermatching* knowledge, understand their current college counseling knowledge, and examine their perception of their role in supporting students of color in the college-going process. Four pre-service counselors from two mid-Atlantic universities participated in the intervention once a week over a three-week period from
March 2020 to April 2020. The intervention was guided by the following research questions:

RQ1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and *college undermatching*?

RQ2: What is the level of participation of pre-service school counselors in the virtual professional learning community?

RQ3: How do pre-service school counselors describe their experience participating in the virtual professional learning community?

RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?

RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of their role in supporting students of color in the college-going process?

The researcher collected data from the College Counseling Knowledge Instrument, the Session Feedback Survey, the Professional Learning Experience Survey, and a semi-structured post-intervention focus group. Quantitative data were analyzed utilizing descriptive statistics and the qualitative data were analyzed utilizing InVivo and descriptive coding.

**Findings**

Prior to the intervention, pre-service counselors were able to identify some characteristics of college undermatching, despite not knowing there was a specific term for the concept. Post-intervention, pre-service counselors could define *college
undermatching as well as identify the contributing factors. The participants also expressed that their college undermatching and college counseling knowledge expanded because of the intervention. In addition, the pre-service counselors noted that they could apply what was learned in the intervention to their future college counseling practices. Furthermore, some participants noted they wanted the intervention to extend past three sessions, while one participant indicated they may not have participated in the intervention if it had been longer. However, they all indicated they would participate in a virtual professional learning community in the future.

Although the sample size was small, the mixed-methods intervention provided pre-service counselors with the opportunity to add to their knowledge of college undermatching and college counseling. In addition, the participants were able to engage with and learn from each other. Even though the results of the intervention may not be generalizable to all pre-service counselors, the results indicate that pre-service counselors can benefit from college admission counseling training.
Chapter 1

Introduction

After the 2008 recession, it was estimated that employees with some college education fulfilled 99% of the created jobs (Carnevale, Jayasundera, & Gulish, 2016). However, only 33% of adults age 25 years and older had obtained a bachelor’s degree (U.S. Census, 2017). Moreover, traditionally underserved racial ethnic groups and students from low-socioeconomic households “fall behind in every step of the attainment process: high school graduation, college enrollment, and postsecondary credential completion” (Clinedinst & Koranteng, 2017, p. 5). National college readiness campaigns such as Reach Higher, Better Make Room, and President Obama’s North Star goal have advocated for higher rates of educational attainment to ensure that the United States regains its status as the leading developed country in the world with the highest number of college graduates and certificate recipients (Fry, 2017). The Lumina Foundation (2018) suggests that by the year 2025, the United States will need approximately 23 million college graduates to fulfill the workforce vacancies (Belasco & Trivette, 2015). However, “fewer than half of Americans ages 25-64 hold a credential beyond high school” (Lumina Foundation, 2018, para. 4). Research also confirms that obtaining a college degree has positive implications for upward social mobility and students who receive a four-year degree earn higher socioeconomic status (SES) levels than those who either enroll in a two-year institution or do not enroll in college at all (Brand & Xie, 2010; Hill, Bregman, & Andrade, 2015; Long & Kurlaender, 2009). Yet, 62% of African American students and 60% of Latino students enroll in college the fall after they
graduate from high school compared to 71% of White students (Black, Cortes, & Lincove, 2015).

Students of color, particularly African American and Latino students, are underrepresented in higher education (Howard, 2003; Martinez & Cervera, 2012) and tend to graduate from high school and obtain a bachelor’s degree at lower rates than their White peers (Cox, 2016; Dyce, Albold, & Long, 2013). In 2012, there was a 17-percentage point difference in bachelor’s degree attainment between Black and White students and this has remained constant since 1990 (Cox, 2016). Despite the gaps in SES and bachelor’s degree attainment, many students of color have aspirations to pursue postsecondary education, especially those who are involved in college preparation programs such as Advancement Via Individual Determination (AVID) or Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) (Hubbard, 1999; Watt, Huerta, & Lozano, 2017). Yet, Castleman, Arnold, and Wartman (2012) posit “up to one third of low-income students who had been accepted into and paid deposits to attend college reconsidered where, and even whether, to enroll” (p. 2). Castleman and colleagues (2012) also suggest that despite the emphasis on college access for students from low-income backgrounds, not enough is being done to support students in the time period between high school graduation and college enrollment known as summer melt.

Research indicates that enrollment at a selective postsecondary institution provides many advantages for African American and Latino students, but they remain underrepresented in those spaces (Bowen, Chingos, & McPherson, 2009; Hill et al., 2015). Enrolling in more selective postsecondary institutions includes benefits such as higher graduation rates and financial earnings, as well as higher overall life satisfaction.
African American students tend to enroll at community colleges at disproportionately high rates, although they meet the requirements to attend four-year institutions (Lowry, 2017). This phenomenon is known as college undermatching (Hill et al., 2015; Roderick, Coca, & Nagaoka, 2011). College undermatching occurs when high-achieving students from low-SES households apply to and enroll in less selective postsecondary institutions despite meeting the academic criteria for admission (Bastedo & Flaster, 2014; Black et al., 2015; Hoxby & Avery, 2013; Lowry, 2017).

This dissertation first examines a problem of practice; students of color who college undermatch at less selective postsecondary institutions despite possessing the academic credentials to be admitted or enrolled. In addition, a school-based social capital conceptual framework is explored as it relates to the problem of practice as well as some exploration of contributing factors to college undermatching faced by students of color. The dissertation then further investigates the problem of practice by analyzing the results of a needs assessment completed by high school counselors. Next, the results of the needs assessment are discussed then the dissertation transitions to review literature that proposes a potential intervention to address the problem of practice. After, the implementation of the intervention as well as the data collection and data analysis processes are shared and lastly, the results and implications of the intervention are discussed.

**Problem of Practice**

Within the next ten years, it is estimated that students of color will comprise about half the population in public schools (Welton & Martinez, 2014). Despite this growth,
students in this population still experience low college enrollment rates (Cox, 2016; Perna, Rowan-Kenyon, Thomas, Bell, Anderson, & Li, 2008). In particular, high school students of color tend to college undermatch (Hill et al., 2015; Roderick, Coca, & Nagaoka, 2011). Some factors that contribute to college undermatching at four-year institutions for students of color include access to college preparation information such as completing college applications and understanding the financial aid process (Belasco & Trivette, 2015; Cox, 2016; Roderick et al., 2011; Woods & Domina, 2014), low-SES (Bastedo & Jaquette, 2011; Pallais, 2015; Cox, 2016), and meaningful engagement with their school counselors (Corwin, Venegas, Oliverez, & Colyar, 2004; Hubbard, 1999).

**Conceptual Framework**

Although students of color have similar aspirations to attend college like their White counterparts, they are less likely to have adults in their lives who have first-hand knowledge of the college-going process when compared to their White peers (Farmer-Hinton, 2008). Because of this disparity, it is critical for students of color to have access to the necessary resources and information to help them navigate the postsecondary education pipeline. Farmer-Hinton (2008) suggests that for students of color, particularly those who are first-generation college students, to successfully transition to college, “their primary sources of direct college-planning support and guidance should come from their schools” (p. 131). For example, the author references Stanton-Salazar’s (1997) conceptual framework, school-based social capital. School-based social capital is a network of adults that can include teachers, administrators, school counselors, and other school staff who have the desire to share their knowledge and resources to support students on their journey to postsecondary education (Stanton-Salazar, 1997). Bourdieu
(1986) defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p. 51). Essentially, individuals who have access to social capital typically gain access to information and resources they may not have had before. However, Bourdieu (1986) asserts that some individuals who have social capital may not freely share it with others outside of their network causing that social capital to remain inaccessible. This may be due to assumptions or biases that those who have the social capital hold against individuals who do not have it.

Conversely, Coleman (1988) suggests that social capital should be freely transmitted for the benefit of others. Coleman (1988) posits that there are various forms of social capital such as information channels and states that “information is important in providing a basis for action” (p. S104). In addition to providing guidance about academic coursework, students of color benefit from their school networks to provide guidance and support about the college-going process (Farmer-Hinton, 2008).

**School-Based Social Capital**

A school-based social capital model (Stanton-Salazar, 1997) illustrates the importance of the relationship between students of color and school counselors. For the purpose of this framework, Stanton-Salazar (1997) defines social capital as “supportive relationships with institutional agents” (p. 7) and institutional agents are “those individuals who have the capacity and commitment to transmit directly, or negotiate the transmission of, institutional resources and opportunities” (p. 6). Resources can include information about academic coursework as well as how to navigate the college admission process. Institutional agents can be teachers, school counselors, community members,
family members, and even peers. Having access to institutional agents affords individuals the opportunity to take advantage of the resources and privileges necessary to advance within society. These agents, however, also have the power to withhold resources and information which can prove to be problematic for students of color (Stanton-Salazar, 1997). Conversely, institutional agents can dismantle systems that have traditionally prohibited access to information for students of color. By doing this, institutional agents ensure that students of color are positively situated in social networks that contribute to their success (Stanton-Salazar, 1997).

Stanton-Salazar (1997) specifically focuses the school-based social capital framework on students of color because of the difficulties this population faces converting potential social capital into actualized social capital. Stanton-Salazar (1997) argues that although families serve as the primary source of encouragement and motivation for students, institutional agents can enhance and support students’ knowledgebase, specifically for students of color who come from disadvantaged backgrounds. Because students spend a great deal of time in school, it serves as an institution of primary social capital (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011). Savitz-Romer (2012b) further posits,

Because college counseling is seen as a form of social capital that is transmitted through the relationships that exist between students and those who support their college planning process, the preparedness of the people who provide the counseling is critical (p. 2).

Referencing Bourdieu’s (1986) and Coleman’s (1988) conception of social capital theory, Stanton-Salazar (1997) posits that the middle-class population benefits from social capital
because they can freely and fluidly move throughout their networks. Stanton-Salazar (1997) also questions whether students of color from working-class backgrounds can benefit from the same opportunities and identifies five reasons why children of color from low-income backgrounds experience difficulties obtaining social capital: (a) the difference in value that is given to children of color is dependent on their social class, race, and gender, (b) the barriers in place that make it uncomfortable for children of color to successfully integrate themselves into mainstream society, (c) the process in which institutional agents determine the students of color they will support based on whether they feel those students will assimilate into the cultural capital of the dominant social group, (d) the manufacturing of conditions that create distrustful feelings which in turn make it difficult to cultivate social capital, and (e) ideologies that deter children of color from seeking help or asking questions. To address these concerns, Stanton-Salazar (1997) crafted the school-based social capital conceptual framework based on the concepts of social capital and institutional support.

Stanton-Salazar (1997) defines institutional support as networked systems that provide resources and guidance to help young adults be active participants in their learning and environments, particularly within a school setting. The author reiterates this belief by introducing the term *instrumental action*. Instrumental action is when individuals convert their social capital to institutional support to obtain a goal (Stanton-Salazar, 1997). Essentially, students may be given the social capital to access information, but they must take advantage of it to fully profit from its benefits.

School counselors are critical to providing students the essential information they need to navigate the college-going process (Belasco, 2013; Woods & Domina, 2014). In
addition, school counselors “must cultivate a college-going culture to foster an environment where going to college is the norm and not the exception” (Mayes & Hines, 2014, p. 35). As such, Stanton-Salazar’s (1997) school-based social capital framework includes six elements of institutional support that serve as significant components in successful social integration in a school setting: (a) the provisions of various funds of knowledge, (b) bridging, (c) advocacy, (d) role modeling, (e) emotional and moral support, and (f) evaluative feedback, advice, and guidance. The first element of various funds of knowledge is defined as providing knowledge that helps students climb the ranks of the educational system (Stanton-Salazar, 1997). The funds of knowledge are broken down into seven principal forms: (a) institutional discourse such as ways of utilizing language and communication in social settings, (b) academic subject-area knowledge, (c) knowledge of how to navigate bureaucracies, (d) development of networks and skills to aid in navigating relationships with institutional agents, (e) development of technical skills such as computer literacy and time management skills, (f) understanding college and career markets and opportunities, and (g) problem-solving skills. These principles of funds of knowledge can be utilized by school counselors as benchmarks when they help students navigate the college-going process (Stanton-Salazar, 1997).

**Review of Literature**

The following section provides a review of literature to understand how contributing factors impact low matriculation rates to college by students of color, specifically *college undermatching*. A brief overview of the history of African Americans’ pursuit of higher education will be reviewed followed by how access to
college preparation information, socioeconomic status, and engagement with a school counselor can affect students of color and their college admission process.

**Historical Context of Access and Equity**

To further understand the pursuit of higher education as it pertains to students of color, it is necessary to briefly examine the history of access and equity. Harper, Patton, and Wooden (2009) utilize Critical Race Theory to analyze the history of policies relating to African Americans’ access to higher education. In their study, they examine policies ranging from the second Morrill Land Grant Act to *Brown v. Board of Education*. Harper et al. (2009) explain that despite the good intentions behind these policies, African American students continue to face challenges in accessing higher education. The authors highlight that the earliest record of an African American receiving a postsecondary degree came in 1823 and after the Civil War only 28 African Americans received postsecondary degrees out of 4 million freed slaves (Harper et al., 2009).

Because of the inequity of African American postsecondary degree attainment, Historically Black Colleges and Universities (HBCUs) emerged to specifically educate African Americans. However, White Christians primarily oversaw HBCUs because they hesitated to give control of the institutions to African Americans (Harper et al. 2009). HBCUs also ensured that African Americans did not attend white land-grant institutions (Roebuck & Murty, 1993).

Karen (1991) utilized quantitative data from the U.S. Census Bureau, the American Council on Education, the Project TALENT study of 1961, and the National High School Longitudinal Study of 1972 to examine access to higher education for African Americans, women, and working-class youth between 1960 and 1986 as well as
the type of institutions these populations attended. Karen (1991) posits that Whites felt threatened by the advances African Americans made in pursuing postsecondary education. Considering themselves the dominant social group, Whites wanted to ensure that their superior status was not compromised due to the rise of marginalized groups; therefore, they implemented policies and barriers to make the path of pursuing postsecondary education even more difficult for African Americans. Karen (1991) also references the decline in federal student aid during the Reagan administration, as well as the administration’s lack of enforcement of affirmative action as reasons for low college enrollment rates of African Americans.

Access to College Preparation Resources

Although students of color possess the ambition to pursue postsecondary education, access to and understanding of college-going information can present several challenges. Students of color typically have to navigate the college pipeline in high-poverty high schools that are under-resourced and offer few advanced classes (Welton & Martinez, 2014). Welton and Martinez (2014) conducted two qualitative studies to explore the college choice process and college resource connections for 35 students in two different high schools in Texas. The students, primarily Latino and African American, lived in low-socioeconomic households. For the purposes of this study, the researchers utilized phenomenological semi-structured interviews during the 2009-2010 school year, as well as interviews and informal conversations with school administrators. Welton and Martinez (2014) sought to understand the importance of culturally responsive methods for assisting high school students of color in their pursuit of postsecondary education. The researchers concluded that although school counselors showed support of
the students’ college aspirations, they often had limited time in which they could meet with students individually. One student in the study was not enrolled in Advanced Placement (AP) courses during her junior year because the school counselor decided not to enroll her. Because of this, the student found the classes unchallenging and often skipped them. The significance of the Welton and Martinez (2014) study is that the researchers utilized personal narratives to directly uncover how students of color felt about the college-going process. In the instance of the student who did not enroll in the AP courses, the responsibility was solely projected onto the school counselor. Unfortunately, the student did not self-advocate to be enrolled in the courses that could have had a significant impact on her high school transcript and her future college applications.

Students of color, at times, do not fully understand the college admission process such as applying for financial aid (Valadez, 2008) which can result in incomplete paperwork and missed deadlines (Castleman, Arnold, & Lynk Wartman, 2012). Valadez (2008) conducted an ethnographic 18-month case study of 12 high-achieving Mexican immigrant high school juniors living in rural Washington. The researcher wanted to understand the educational choices of these students. To analyze the data, the researcher utilized grounded theory and open coding to determine emerging themes and patterns. Themes such as access to information, structural constraints, and cultural constraints emerged as results of the analysis (Valadez, 2008). Regarding access to college information, the researcher referenced the relationship the students had with the school counselor. Unlike the school counselor referenced in the Welton and Martinez (2014) study, the school counselor in the Valadez (2008) study actively provided college
information to his students. Unfortunately, some of the students did not take advantage of this information nor did they take the initiative to pursue additional information and ask additional questions. The school counselor expressed frustration working with the students because he felt the students had the capacity to pursue postsecondary education and be successful, but he had a difficult time convincing them. In addition, the students in the study noted that both they and their families recognized the value of higher education, but their parents expressed reservations about them being away from home. This resulted in some of the students not matriculating to postsecondary education directly after high school graduation.

The Valadez (2008) study demonstrates that although the school counselor provided college preparation resources to the students, the students did not actively utilize them. Like the student referenced in the Welton and Martinez (2014) study, these results indicate that students also have a responsibility to take initiative in matters concerning their postsecondary education planning. According to Stanton-Salazar’s (1997) school-based social capital framework, students must take advantage of information and resources that are presented to them. The responsibility of giving students access to college preparation resources cannot solely be placed on a school counselor or another individual for that matter. The Valadez (2008) and Welton and Martinez (2014) studies are similar because in both instances the students did not advocate for themselves, resulting in missed opportunities to prepare for navigating the college-going process. Further, the Valadez (2008) study highlighted the consistent effort that the school counselor displayed in trying to provide his students with the necessary information about college. Whereas the school counselor in the Welton and
Martinez (2014) study appeared to have limited time to work closely with students which resulted in a missed opportunity for a student to enroll in an AP course. In turn, the AP course could have manifested into college credit.

Although there are students of color who feel academically prepared for postsecondary education, some feel they lack the study and time management skills necessary to succeed in college and view large college class sizes and lack of one-on-one attention as additional barriers to their success (Reid & Moore, 2008). An important piece to the college-going process that is sometimes overlooked, is what to expect once a student matriculates to campus. Understanding the nuances of a college class schedule compared to a high school schedule as well as professors providing course syllabi and office hours, is an essential aspect of the college experience. Reid and Moore (2008) posit that students from low-socioeconomic households, immigrant families, and first-generation backgrounds, often have a more difficult time accessing college information. For instance, first-generation students of color tend to navigate the college-going process on their own because their parents do not possess the foundational knowledge to assist them (Museus, 2011). Because parents of first-generation students did not attend nor graduate from a postsecondary institution, they have a difficult time assisting their children through tasks such as completing a college application, filing the Free Application for Federal Student Aid (FAFSA), and submitting the appropriate fees to confirm a space in the incoming freshman class or secure housing accommodations (Museus, 2011). These tasks are critical to the college admission process and not completing them can be detrimental to the student and their future at a postsecondary institution.
Socioeconomic Status

Socioeconomic status (SES) is a family’s status as it pertains to education, income, and occupation and can have a great impact on a student’s college-going process. Regarding college enrollment the fall after high school graduation, only 51% of students from low-SES backgrounds matriculate to college compared to 82% of students from affluent families (Black et al., 2015). Hill and Winston (2010) note that of 28 of the United States’ most selective institutions, only 10% of enrolled students are from the bottom 40% of the family income distribution. Students from low-SES households are less likely to have access to college-going information within their homes or communities when compared to their affluent counterparts (Belasco, 2013). In addition, Bowen et al. (2009) posit that African American students from low-SES households are more likely to college undermatch. Furthermore, Palardy (2015) suggests that students who attend schools with a high socioeconomic composition (SEC) are four times more likely to enroll at selective institutions when compared to their low-SEC peers. Typically, low-SES students tend to view college as an excessive expense and hence, do not take the necessary steps to secure financial support (Tierney & Venegas, 2009). Financial support can be in the form of applying for institutional scholarships or filing the FAFSA to receive financial aid from state and federal governments. In their 2009 study, Tierney and Venegas discuss the amount of federal, state, and institutional financial aid that went unused because students from low-income households did not file the FAFSA. According to the researchers, the number of students from low-income backgrounds who missed the opportunity to receive financial aid increased from 1.7 million to 1.8 million from 2000-2004 (Tierney & Venegas, 2009).
Though selective postsecondary institutions traditionally have higher tuition costs than less selective institutions, students from low-SES backgrounds do not know the financial benefits of attending a selective institution (Belasco & Trivette, 2015). These students often do not understand that selective institutions tend to have institutional funds to assist students from low-SES backgrounds where the student amasses little to no out-of-pocket expenses (Hoxby & Turner, 2015). Arnold, Fleming, DeAnda, Castleman, & Wartman (2009) suggest that even after reviewing their financial aid packages, some low-SES students and their families cannot reconcile having to take out loans to fill the financial gap if there is one. To successfully navigate the college admission process, it is essential that low-SES students and their parents fully understand the financial aid process. It is crucial that they know the actual cost of attendance for postsecondary institutions as well as understanding the differences between grants, scholarships, and loans. Although some high schools adequately provide the necessary information to students and their families about financing college, definitive college enrollment for students from low-SES households is not guaranteed (Cox, 2016). Hill and Winston (2010) state “if very able students are denied access to highly demanding colleges because of low family incomes, society suffers along with the individual” (p. 495). Socioeconomic composition (SEC) can also have a major impact on students’ college choices (Palardy, 2015). Palardy (2015) also suggests that students of color from low-SES backgrounds are more likely to attend low-SEC high schools.

**Meaningful Interaction with a School Counselor**

Another contributing factor to college undermatching by students of color is the relationship they have with their school counselors. Negative engagement with a school
counselor may lead students to delay matriculation to college or make “questionable higher education choices” (Hurley & Coles, 2015, p. 9). Coogan and DeLucia-Waack (2007) conducted a survey of 430 college students about their perceptions of the primary role of school counselors. The students ranked college selection and college decision-making as the top two priorities for which they think school counselors are responsible (Coogan & DeLucia-Waack, 2007). However, student-to-counselor ratios, particularly in public schools and low-income schools with a large student of color population, remain high (Bryan, Holcomb-McCoy, Moore-Thomas, & Day-Vines, 2009). The American School Counselor Association (ASCA) and the National Association for College Admission Counseling (NACAC) (2018) released a report utilizing data from the National Center for Education Statistics (NCES) that examined the ten-year trend of student-to-counselor ratios by state. The report indicated that the national student-to-counselor ratio is 482:1 in public schools. ASCA recommends that schools should aim for an average student-to-counselor ratio of 250:1 (ASCA & NACAC, 2018). Currently, only New Hampshire, Vermont, and Wyoming have averages below 250:1 while Arizona, California, and Michigan have the three highest student-to-counselor ratios with Minnesota a close fourth (ASCA & NACAC, 2018). Literature also suggests that not only are school counselors and college counseling services less present in high-poverty, high-minority schools, those students tend to not take initiative and engage with counselors (Bryan et al., 2009; Hurley & Coles, 2015).

Furthermore, school counselors are often tasked with a multitude of responsibilities outside of college counseling (Gilfillan, 2018; Kimura-Walsh, Yamamura, Griffìn, & Allen, 2009; McDonough, 2005; Savitz-Romer, 2019). McKillip,
Rawls, and Barry (2012) note that school counselors’ workloads have steadily increased since the 1970s, but unfortunately, responsibilities have not taken away making it difficult for school counselors to effectively do their jobs. In addition to postsecondary education planning, school counselors are trained to provide support to students in academic and personal spaces (Savitz-Romer, 2019; Woods & Domina, 2014). In NACAC’s 2018 State of College Admission report, the researchers found that public school counselors spent 21% of their time on college counseling compared to 54% of private, nonparochial school counselors (Clinedinst & Patel, 2018). The researchers also note that counselors who work in schools with a high number of students on free and reduced-lunch tend to spend less time on college counseling. Corwin et al. (2004) highlight how high student-to-counselor ratios hindered the amount of time school counselors could spend on college counseling. The three-year study, conducted in 12 high schools in northern and southern California where a high number of students of color received free lunch, found that student-to-counselor ratios ranged from 2,700 students with no counselor to 360 students to 1 counselor. This gap affected the amount of time counselors could spend with individual students. One of the school counselors in the study oversaw 5,400 students and had to prioritize his time to counsel the juniors and seniors over the freshmen and sophomores (Corwin et al., 2004).

Conversely, Farmer-Hinton and Adams (2006) conducted a mixed methods case study to examine the roles and responsibilities of school counselors whose purpose was to prepare first-generation Black high school students for postsecondary education. The results of the study concluded that the counselors fulfilled their responsibilities such as assisting students with class scheduling, helping students navigate their personal...
problems, and assisting in postsecondary planning. In addition, these counselors aided in cultivating a college-going culture for students who may aspire to attend college but believed they could not. The school counselors also coordinated all expenses paid college visits and tours during the students’ junior years. The students had the opportunity to visit both predominately white institutions (PWI) as well as historically black colleges and universities (HBCUs). While it is helpful that the counselors in this study had the ability to provide their students with the information necessary to navigate the college-going process, this is not the case for every school, especially public schools where student-to-counselor ratios tend to be high. In the Perna et al. (2008) study, one counselor expressed frustration over trying to provide college counseling for upwards of 600 students.

Castleman and colleagues (2012) utilized a mixed-methods approach to conduct an experimental study to determine how college counseling during the summer affects low-income students’ matriculation to college. The researchers recruited recent high school graduates from seven high schools within a network of schools in Providence, Rhode Island, known to work with low-income students of color to navigate the college admission process. For the study, all participants had access to college counseling services, but only the treatment group received proactive outreach from the designated college transition counselors. The major finding from the study indicated that the students who received the proactive college counseling enrolled in postsecondary institutions at higher rates when compared to the students in the control group (Castleman et al., 2012).

School Counselor Training

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To understand why meaningful engagement with a school counselor is a contributing factor to college undermatching, it is essential to examine the college admission counseling training school counselors receive prior to practicing in schools. Brott (2006) posits “developing one’s professional identity as a school counselor begins during the training program” (p. 180). School counselors are typically required to have a master’s degree to practice in schools, but oftentimes graduate programs do not require a college admission counseling course as part of that degree (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Savitz-Romer, 2012a). Rather, school counseling graduate programs tend to focus more on mental health support for students (West, 2020).

For first-generation students, students from low-SES backgrounds, and students from underrepresented groups, “school counselors provide an important form of social capital when these students engage postsecondary education counseling, especially when they set high educational expectations, share institutional resources and information, and engage students in thinking about and planning for their future” (Savitz-Romer, 2012a, p. 98). Unfortunately, many school counselors feel underprepared in college admission counseling (Bridgeland & Bruce, 2011; Savitz-Romer, 2012b). A 2011 study by Bridgeland and Bruce, notes only 16% of school counselors gave a highly effective rating to their graduate school training. In addition, 68% of the study’s school counselors indicate they sought additional college and career counseling training (Bridgeland & Bruce, 2011). The study also notes that 93% of school counselors support college and career readiness for their students, but 43% of school counselors in lower-SES schools indicate they do not have the support and resources to do so (Bridgeland & Bruce, 2011).
Furthermore, 99% of counselors in the study agree “they should exercise leadership in advocating for students’ access to rigorous academic preparation, as well as for other college and career readiness counseling, even if others in the school do not see counselors in this leadership role” (Bridgeland & Bruce, 2011, p. 5).

**Conclusion**

There are many factors that affect students of color and their pursuit of postsecondary education, especially as it relates to low matriculation rates and college undermatching. Barriers such as access to college preparatory curricula (Reddick et al., 2011), socioeconomic status (Reid & Moore, 2008), and meaningful interaction with a school counselor (Corwin et al., 2004; Hubbard, 1999) can hinder students of color and their college-going process. School counselors serve as the gatekeepers of college preparation information for many students, but in some instances, high student-to-counselor ratios can influence how much college counseling is available to students (Clinedinst & Patel, 2018; Perna et al., 2008). Students from low-SES households may not receive the information they need about the college-going process at home, so school counselors serve as vital social capital in providing this information. If school counselors are consistently overwhelmed with their responsibilities and are only able to dedicate a limited amount of time to college counseling, students may be at a disadvantage in their college search. Moreover, if school counselors do not possess the required training to provide college admission counseling, they may feel underprepared and unsure of how to effectively support students of color in the college admission process. The next chapter explores the results of a needs assessment in which public school counselors shared their understanding of college undermatching, their college counseling practices, as well as
their perspective on how they respond to the college counseling needs of underrepresented and marginalized students.

**Chapter 2**

**Assessing the Needs of Public High School Counselors**

As noted through the literature in the previous chapter, students of color tend to enroll in college at lower rates than their White peers and often experience *college undermatching* (Lowry, 2017). This is due to limited access to college preparation resources, low-socioeconomic background, and meaningful engagement with their school counselors (Corwin et al., 2004; Cox, 2016; Pallais, 2015). To further understand these contributing factors, the researcher conducted a needs assessment to examine the extent to which high school counselors perceived their ability to effectively provide college counseling to students of color. School counselors were the focus of this needs assessment because oftentimes they play a critical role in the college-going behaviors of students (Velez, 2016). For example, high school seniors who engage one-on-one with a school counselor are 6.8 times more likely to complete the Free Application for Federal Student Aid (FAFSA), 3.2 times more likely to attend college, and 2 times more likely to attend a college with a bachelor’s degree program (Velez, 2016). In addition, speaking with a school counselor in the ninth grade greatly influences students’ college-going behaviors (Velez, 2016). The needs assessment explored public high school counselors’ perspectives of *college undermatching* and the ways participants support student searchers for colleges. Furthermore, the needs assessment described school counselor attitudes towards counseling and their identified materials and resources related to college preparation. The investigation was guided by the following research questions:
RQ1: How do high school counselors define college undermatching?

RQ2: What are high school counselors’ attitudes toward their role in college counseling?

RQ3: What supports and resources do high school counselors utilize to help students navigate the college-going process?

A. How do high school counselors help their students identify the best fit postsecondary institution?

B. What college preparation supports and resources do school counselors see available to students in their schools?

C. Of the supports and resources that are made available, what do high school counselors find their students access the most?

RQ4: How do high school counselors perceive their ability to provide effective college counseling for students of color?

The following describes the details of the needs assessment such as participant selection, data collection and analysis, the findings, and discussion.

**Context of the Study**

The National Association for College Admission Counseling (NACAC) is a nonprofit membership association with approximately 15,000 members. Many of the association’s members are secondary school counselors and college admission professionals, although it also serves independent educational consultants as well as community-based organizations. The organization aims to support the professionals – both secondary and postsecondary – who assist students in their transition to postsecondary education (NACAC, 2020). Public high school counselors from the
NACAC membership were selected to participate in this needs assessment because public high school counselors tend to have higher student-to-counselor ratios and spend less time on college counseling, due to competing responsibilities, than their private high school counterparts (Clinedinst and Patel, 2018).

**Method and Procedure**

The researcher utilized a convergent mixed methods approach to collect data for the needs assessment study. The needs assessment included both quantitative and qualitative questions (i.e. Likert-type questions and open-ended questions) that participants answered in an online survey. An advantage of this convergent design is that quantitative and qualitative data collection occur simultaneously (see Figure 2.1). In addition, this design allows for data analysis to occur separately then the quantitative and qualitative results are triangulated for interpretation (Creswell and Plano Clark, 2018). This means that the quantitative and qualitative data from the needs assessment were analyzed separately then the results of each were merged to interpret the data. Further, the qualitative data results give the participants a voice that lends itself to support the statistical results from the quantitative data collection (Creswell and Plano Clark, 2018).

**Figure 2.1**

*Convergent Design*
Participants

Invited survey participants included public high school counselors from across the United States who were NACAC members. The link to the online survey was sent to 1,202 public high school counselors of which 135 participants responded (6% response rate) with 79 of those surveys deemed as complete. The survey participants represented 16 of the 23 NACAC state and regional affiliates and included fifty-three White counselors, nine Black counselors, five Hispanic/Latino counselors, two Asian/Pacific Islander counselors, and two counselors of mixed race. The participants’ years of experience in the profession varied from less than one year to more than ten years. Almost 80% of the sample indicated they have been in the profession for over ten years. In addition, the school counselors worked in high schools with student enrollments ranging from less than 500 students to more than 2,000 students. Three-quarters of the respondents worked in schools with over 1,000 students enrolled. The survey also asked participants to specify the student-to-counselor ratio within their schools. Of all respondents, 33% of them indicated a caseload of 251-350 students while 28% have a
caseload of 151-250 students. Table 2.1 outlines the characteristics of the survey participants.

Table 2.1

Needs Assessment Participant Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total n = 79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years in profession</td>
<td></td>
</tr>
<tr>
<td>0-1</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>2-5</td>
<td>5 (7%)</td>
</tr>
<tr>
<td>6-10</td>
<td>9 (13%)</td>
</tr>
<tr>
<td>&gt;10</td>
<td>55 (78%)</td>
</tr>
<tr>
<td>Total school enrollment</td>
<td></td>
</tr>
<tr>
<td>&lt;500</td>
<td>6 (9%)</td>
</tr>
<tr>
<td>501-999</td>
<td>11 (17%)</td>
</tr>
<tr>
<td>1,000-1,499</td>
<td>20 (32%)</td>
</tr>
<tr>
<td>1,500-1,999</td>
<td>12 (19%)</td>
</tr>
<tr>
<td>≥2,000</td>
<td>14 (22%)</td>
</tr>
<tr>
<td>Student/Counselor Ratio</td>
<td></td>
</tr>
<tr>
<td>150 or fewer</td>
<td>5 (8%)</td>
</tr>
<tr>
<td>151-250</td>
<td>18 (28%)</td>
</tr>
<tr>
<td>251-350</td>
<td>21 (33%)</td>
</tr>
<tr>
<td>351-450</td>
<td>11 (17%)</td>
</tr>
<tr>
<td>451-550</td>
<td>6 (9%)</td>
</tr>
<tr>
<td>≥551</td>
<td>3 (5%)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>9 (13%)</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>53 (75%)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>5 (7%)</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>Mixed Race/Ethnicity</td>
<td>2 (3%)</td>
</tr>
</tbody>
</table>

*Not all respondents answered the demographic questions

Instrument

The survey instrument utilized for the needs assessment study was adapted from the School Counseling Multicultural Self-Efficacy Scale (SCMES) (Holcomb-McCoy, Harris, Hines, & Johnston, 2008). The survey, SCMES, was administered via email
using Qualtrics which is an online survey tool. The survey instrument consisted of 14 statements using a 5-point Likert scale while the qualitative items consisted of four open-ended questions (Appendix A). The 14 items aimed to gather data about public high school counselors’ perception of how they provide college counseling services to students from culturally different and marginalized populations. Six of the Likert scale statements specifically addressed culturally different and marginalized populations because students of color often experience college undermatching and it is important to understand how school counselors may adjust their college counseling practices to serve their varying student populations. In addition, survey items sought to understand public school counselors’ college counseling practices. The four open-ended questions inquired further into the participants’ college counseling practices. Furthermore, the survey included demographic information such as years of experience in the profession, total school enrollment, student-to-counselor ratio, and race/ethnicity. To assist with validity, the survey was sent to three Johns Hopkins University School of Education Faculty, two of whom have a background in school counseling, to review, as well as a former school counselor who served students from a high-poverty, high-minority school in Chicago Public Schools. These individuals reviewed the survey and provided feedback about the type of questions in the survey, the flow of the questions, and the length of the survey.

**Participant Identification and Selection**

The researcher worked with NACAC staff members to generate a list of email addresses for public high school counselors who represent its 23 state and regional affiliates. From the initial list, the researcher narrowed down the results to include individuals with titles such as school counselor, high school counselor, guidance
counselor, director of school counseling, director of guidance counseling, and school counseling supervisor. That list generated 1,205 NACAC member identities of which 1,202 had an email address.

**Data Collection**

In September 2018, a link to the SCMES was sent to the email addresses of 1,202 public high school counselors (see Appendix A). The participants received instructions that indicated they could skip any question or end their participation at any time. The instructions also indicated participants’ responses would remain confidential and data would be aggregated such that no individual responses nor respondent could be identified. The survey remained open for four weeks and a reminder email was sent to the participants after the second week to encourage additional participation.

**Data Analysis**

The quantitative results of the survey are were based on a 5-point Likert scale: (1) strongly disagree, (2) somewhat disagree, (3) neither disagree nor agree, (4) somewhat agree, and (5) strongly agree. To analyze the quantitative results, descriptive statistics including mean and standard deviation were utilized.

To analyze the qualitative results, the researcher utilized a two-cycle coding process (Miles, Huberman, and Saldana, 2014). A combination of descriptive coding and In Vivo coding was used to identify codes from the open-ended questions on the survey. Utilizing In Vivo coding allowed for codes to be identified directly from the words of the participants while descriptive coding assigned labels to the data in one word or short phrases (Miles et al., 2014). The first cycle assigned codes based on data chunks while the second cycle resulted in narrowing down the number of codes that emerged. The
researcher developed themes using the codes identified during this process (Miles et al., 2014). The coding process was completed by hand. The findings for each of the previously mentioned research questions are presented next.

**Findings**

This section reviews the findings of the four research questions outlined in this chapter and describe both the quantitative and qualitative responses. The findings provide important information about how school counselors define college undermatching, their attitudes toward college counseling, and the types of college preparation resources and support they provide their students to help them find the right fit postsecondary education institution. The amount of dedicated time school counselors can provide effective college counseling to their students as well as how they perceive their approach to college counseling for their students from different cultural and racial ethnic backgrounds also emerged as major findings. The findings are organized by the research questions.

**Defining College Undermatching**

To address the first research question of the needs assessment, the first open-ended question on the survey asked participants to define *college undermatching*. As described in chapter one, *college undermatching* occurs when high-academic ability students apply to or enroll in less selective postsecondary institutions despite meeting the admission criteria to be admitted into more selective postsecondary institutions (Hoxby & Avery, 2013). Table 2.2 outlines the main codes identified from the open-ended undermatching question on the survey. For this needs assessment, four codes associated with *college undermatching* are discussed: less selective/challenging college, beneath
student's academic abilities, socioeconomic status, and lack of knowledge/advisement.

These codes are specifically examined because they appeared the most in participant responses to how they define *college undermatching*.

**Table 2.2**

*Define College Undermatching*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Data Points</th>
</tr>
</thead>
</table>
| Less selective/challenging college                          | “When a student has the ability to attend a selective college but does not.”  
“Student attending a college where they will not be challenged.”  
“Students applying to and enrolling in a less-selective college or university than they might be eligible to attend.”  
“When a student enrolls at a school less selective than their credentials warrants. This seems to specifically impact first-generation and students of color.”  |
| Beneath student's academic abilities                        | “Students who attend colleges that do not match their academic level of achievement.”  
“Looking at colleges that are academically beneath the ability of the student applying to them.”  
“Colleges that are well below the student’s abilities and achievement.”  |
| Socioeconomic status                                        | “Well-qualified low-income student graduates do not apply to colleges they are academically qualified for.”  
“When a higher performing low-income student does not apply/attend a college aligned with HS performance/abilities.”  |
When survey participants were asked to define *college undermatching*, one code that frequently appeared was less selective/challenging college. One school counselor noted that *college undermatching* is “when a student has the ability to attend a selective college but does not” while another counselor noted “a student attends a less competitive college than they might otherwise be accepted to.” Further, participants pointed to students attending postsecondary institutions whose curriculum is beneath the students’ academic abilities as a characteristic of undermatching. One participant noted that *college undermatching* occurs “when a student with high academic ability selects a less selective college” while another respondent said, “a college that does not match the intellectual aptitude of the student.” Some respondents contended that students miss out on opportunities and benefits of attending more selective colleges because of undermatching. One participant specifically defined *college undermatching* as a, “condition when [a] student attends [a] less competitive college and misses opportunities from which he/she would have benefitted.” Only one respondent indicated that they were “not sure” how to define *college undermatching.*
In addition to addressing students’ academic abilities, school counselors repeatedly pointed to a student’s socioeconomic status as a reason for *college undermatching*. As addressed in the literature in the previous chapter, students from low-SES backgrounds tend to *college undermatch* (Cox, 2016). One participant indicated that *college undermatching* happens “when low-income students do not apply to colleges they are qualified for” while another participant stated, “often the reason for this is that students do not believe they can afford it or are not counseled to reach high.” Yet another counselor suggested “when well-qualified low-income student graduates do not apply to colleges they are academically qualified for.” On a positive note, school counselors on average agreed that they can identify environmental factors, such as poverty, that can influence the college choice of students. This is depicted in Table 2.3. Because the literature acknowledges SES as a contributing factor to *college undermatching*, this revelation is important as school counselors guide students through the college-going process.

**Table 2.3**

*Socioeconomic Status*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can identify environmental factors, such as poverty, that can influence the college choice of students.</td>
<td>87</td>
<td>1</td>
<td>5</td>
<td>4.52</td>
<td>.900</td>
</tr>
</tbody>
</table>

The sentiment that students experience a lack of knowledge/advisement about *college undermatching* is another code that emerged from the survey. Several
respondents noted that students who undermatch do not have the proper resources to find an institution that meets their needs. For example, one school counselor suggested “a student not having the resources to find a college that matches their needs.” Some of the respondents implied that school counselors are responsible for this lack of knowledge by stating that students are not “being introduced to the number of colleges that could ultimately be a good fit for them” or “recommending students apply to colleges that do not have the level of rigor the student is actually capable of handling.” One survey participant went as far as to say,

I also believe undermatching is a direct result of not feeling comfortable talking to students and families about admission deadlines and how students from underserved populations are often told they shouldn’t apply early because their record is just ‘average’ compared to students from more privileged backgrounds.

Conversely, one respondent inferred that it is the responsibility of students to understand college undermatching by saying, “a high-achieving student goes to the easiest college to get into, closest to home, or most affordable without investigating all the options.”

**School Counselor Attitudes Toward College Counseling**

The second research question of the needs assessment addressed school counselor attitudes toward their role in college counseling. Depicted by Table 2.4, on average, survey respondents agreed (4.46) that cultivating a college-going culture in their school is encouraged and supported by school administrators. However, most survey respondents disagreed (2.91) that their workload allows sufficient time to adequately provide college counseling for their students. The data show that there appears to be a disconnect between school counselors believing that a college-going culture is encouraged and
supported by their administrators and the amount of time they have to adequately provide college counseling to their students. This sentiment is supported by current research highlighted in the previous chapter. As previously mentioned, public high school counselors on average spend 21% of their time counseling their students about the college-going process (Clinedinst & Patel, 2018). This also supports the notion that meaningful engagement with a school counselor can affect college undermatching (Corwin et al., 2004). Further, respondents remained “on the fence” or reported a neutral response regarding the primary responsibility of school counselors being to help students find the best fit postsecondary education institution. Given that school counselors are responsible for multiple tasks in their role and have limited time to complete these tasks (Savitz-Romer, 2019), it is reasonable to think that counselors are unsure about their role in supporting the college-bound student.

**Table 2.4**

*School Counselor Attitudes Toward College Counseling*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivating a college-going culture within my school is encouraged and fully supported by school administrators.</td>
<td>87</td>
<td>1</td>
<td>5</td>
<td>4.46</td>
<td>.887</td>
</tr>
<tr>
<td>I believe it is the primary responsibility of school counselors to ensure students find the best fit college or university.</td>
<td>87</td>
<td>1</td>
<td>5</td>
<td>3.63</td>
<td>1.182</td>
</tr>
<tr>
<td></td>
<td>$n$</td>
<td>Min</td>
<td>Max</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I believe my workload allows sufficient time for me to adequately provide college counseling for my students.</td>
<td>80</td>
<td>1</td>
<td>5</td>
<td>2.91</td>
<td>1.38</td>
</tr>
</tbody>
</table>

**College Preparation Resources**

Research question three of the needs assessment asked about the supports and resources high school counselors use to help their students navigate the college-going process. This includes how school counselors help their students find the right fit college or university, as well as what resources and materials school counselors see their students access the most. Table 2.5 indicates that on average school counselors (4.53) agreed they encourage their students to take college preparation and advanced courses as well as provide their students with the most current and accurate college-search materials (4.29). In addition, on average, respondents agreed (4.18) that their schools not only offer adequate college preparation resource materials for students, but that they provide their students with sufficient college placement and advanced courses (4.46). Regarding college preparation resources, the counselors in the survey identified ways they help students find the right fit in a postsecondary institution as well as the resources and materials that are provided to their students. When responding to the open-ended question about helping students find the right fit college or university, school counselors noted that they encourage students to attend college fairs, campus tours, meet with college admission representatives when they visit their high school, complete an interest inventory/career exploration, schedule an individual meeting with their counselor, and utilize Naviance. Naviance “is a college and career readiness solution that helps districts
and schools align student strengths and interests to postsecondary goals, improving student outcomes and connecting learning to life” (Hobsons, 2019). Naviance appeared frequently in the participants’ responses to the open-ended question.

School counselors also answered two open-ended survey questions regarding the college preparation materials and resources that are made available to students in their schools, as well as what college preparation resources they see their students access the most. When responding to the open-ended question about the college preparation resources made available to students in their schools, many respondents listed the same materials and resources outlined from the previous open-ended question about helping their students find the right fit. For instance, Naviance and college fairs emerged as the most common resources, but the school counselors also noted that they host financial aid workshops as well as college nights for students and parents. Respondents also indicated that they help students create a graduation plan and conduct one-on-one interviews with students to prepare them to meet with an admission representative. Some respondents indicated that students participate in bus tours to college campuses as well as have access to prep courses for the SAT, ACT, and access to advanced placement courses and international baccalaureate courses. Only a small number of school counselors listed themselves as a resource. Table 2.6 lists the resources that the survey participants mentioned most in their responses. When asked what of the college resources and materials their students access the most, many of the respondents cited Naviance as well as other online college search resources. One respondent indicated they do not keep track of the resources that their students are accessing, but they hope to do so in the future.
### Table 2.5

*School Counselor Perception of the Availability of College Preparation Resources*

<table>
<thead>
<tr>
<th>Resource</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I provide the most current and accurate resources for students during the college search process.</td>
<td>1</td>
<td>5</td>
<td>4.29</td>
<td>1.056</td>
</tr>
<tr>
<td>My school offers sufficient college preparation resources for students to take during their high school career.</td>
<td>1</td>
<td>5</td>
<td>4.18</td>
<td>1.051</td>
</tr>
<tr>
<td>My school offers sufficient advanced courses for students to take during their high school career.</td>
<td>1</td>
<td>5</td>
<td>4.46</td>
<td>.986</td>
</tr>
<tr>
<td>I encourage my students to take college preparation and advanced courses.</td>
<td>1</td>
<td>5</td>
<td>4.53</td>
<td>.95</td>
</tr>
</tbody>
</table>

*n = 87

### Table 2.6

*College Preparation Resources Made Available to Students*

<table>
<thead>
<tr>
<th>Resources</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naviance</td>
<td>Online college and career planning resource</td>
</tr>
<tr>
<td>College fairs</td>
<td>Event where students can learn about a variety of postsecondary institutions at the same time</td>
</tr>
<tr>
<td>Admission representative visits</td>
<td>College admission representatives visit individual high schools</td>
</tr>
<tr>
<td>Online resources</td>
<td>Online college planning resources that are not Naviance</td>
</tr>
<tr>
<td>Financial aid workshops</td>
<td>Organized events where students and parents learn about the college financial aid process</td>
</tr>
<tr>
<td>Resources</td>
<td>Definition</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>College nights</td>
<td>Organized events where students and parents learn about the college admission process</td>
</tr>
<tr>
<td>Standardized testing preparation</td>
<td>Organized preparation courses for students who are going to take the SAT and/or the ACT</td>
</tr>
<tr>
<td>Bus tours</td>
<td>Organized events where high schools take their students to visit college campuses – locally or otherwise</td>
</tr>
</tbody>
</table>

**Culturally Responsive College Counseling**

To address the fourth research question, the survey participants responded to a series of statements around culturally responsive college counseling. As depicted in Table 2.7, on average school counselors (4.05) agreed that they can identify when a college counseling approach is culturally inappropriate for some of their students. On average school counselors also agreed (4.25) that they can provide examples of how stereotypical beliefs about a person from a different culture can impact the college counseling process. The respondents (4.07) even noted that they can identify their own stereotypes about historically marginalized student populations that affect the college counseling process. Further, one respondent posited,

> school counselors have a responsibility to all students to serve them and meet them where they are. This may mean for many of us spending time to understand what it means to be culturally competent. Undermatching often occurs when counselors do not consider a student’s cultural experience and bias that exists on standardized tests and within the college admissions business.

**Table 2.7**

*Culturally Responsive College Counseling*
<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can identify when a counseling approach is culturally inappropriate for a specific student.</td>
<td>87</td>
<td>1</td>
<td>5</td>
<td>4.05</td>
<td>.963</td>
</tr>
<tr>
<td>I can give examples of how stereotypical beliefs about culturally different persons impact the college counseling process.</td>
<td>87</td>
<td>1</td>
<td>5</td>
<td>4.25</td>
<td>.979</td>
</tr>
<tr>
<td>I can identify how my own stereotypical beliefs about historically marginalized student populations impact the college counseling process.</td>
<td>86</td>
<td>1</td>
<td>5</td>
<td>4.07</td>
<td>.892</td>
</tr>
</tbody>
</table>

**Discussion**

Participant responses to the needs assessment provided a range of perspectives on the definition of undermatching as well as some interesting perceptions of counseling practices. The literature in chapter one discusses three contributing factors of *college undermatching* for students of color – access to college preparation materials,
socioeconomic status, and meaningful engagement with a school counselor – and many of the survey results further explored these factors as being relevant to explaining the challenge of college undermatching. Upon examination of the qualitative data about college undermatching, most responses aligned with Hoxby and Avery’s (2013) definition. Many survey participants indicated that college undermatching occurs when high-achieving students do not apply to or enroll in more selective postsecondary institutions despite meeting the admission criteria. Further, many school counselors pointed to socioeconomic status as a contributing factor to college undermatching because oftentimes students from low-income households tend to undermatch.

Regarding access to college preparation materials, school counselors reported that they and their schools provide a range of information to their students about the college search process through resources such as college fairs, Naviance, admission representative visits to their high schools, and financial aid workshops. This contradicts what the literature says, but there may be reasons for this. Reid and Moore (2008) suggest that students from low-SES households often have a more difficult time accessing college-going information. For instance, students may not know that these resources are available, and the school counselors may need to communicate this information in a more effective manner. The available information may also not be appropriate for every student, particularly students of color. Though meaningful engagement with a school counselor was not specifically included in the survey, the data showed that the construct is evident. For example, many survey respondents indicated that they not only help their students find the best fit institutions by using a variety of strategies, but they also encourage them to take college preparation and advanced
placement courses. On average, 4.53 school counselors agreed that they encourage their students to take college preparation and advanced placement courses (see Table 2.5). However, the respondents noted that they spend limited time on college counseling because of their demanding workload. This can affect how much information school counselors can share about the college-going process with their students. Limited time for college counseling can also affect how school counselors learn about the goals, aspirations, and interests of their students; all of which are integral to students finding the right college fit.

Based on the survey findings, two themes emerged from the qualitative data: fit and support. Many respondents posited that college undermatching is about finding the right fit in a postsecondary institution. This may include academic fit, cultural fit, or financial fit. One school counselor stated, “selecting/recommending colleges which do not fit students’ academic, economic, cultural, and/or socio-emotional needs” while another respondent said, “college choices that do not match the student’s best fit school in some manner.” Support also emerged as a theme throughout the needs assessment in two facets. First, as it relates to the lack of knowledge or advisement students receive about the college admission process, as well as the materials and resources that are provided to students. Second, support as it relates to the time public school counselors can dedicate to college counseling due to competing priorities. Regarding lack of knowledge or advisement, some survey respondents asserted that students who undermatch are not exposed to information and resources to combat the phenomenon. For example, one respondent suggested that “college undermatching occurs when students with perceived underrepresentation are steered towards less competitive
institutions of higher learning.” However, the respondents also acknowledged that they provide an assortment of resources for their students to access. Regarding support as it relates to dedicated time for college counseling, on average 2.91 school counselors disagreed that their workload inhibited them to adequately provide college counseling to their students (see Table 2.4). Regardless, providing students with support is necessary to ensure they acquire the foundational knowledge they need to navigate the college-going process.

Despite the affirming results of the needs assessment study, there are several factors to consider. First, this study is solely based on the perspective of school counselors. The student voice is not represented so it is difficult to determine students’ knowledge about college undermatching or the type of resources they utilize in the college-going process. Also, the student of color population at the respondents’ schools cannot be verified nor is known so determining how many of them experience college undermatching is difficult. Furthermore, the socioeconomic breakdown of the schools in the study is unknown. Having this data may give a better idea of the student population that the survey respondents serve. The survey also did not include questions to determine whether school counselors have a solid foundational knowledge about the college admission practices of selective and highly-selective postsecondary institutions. The assumption is that students who experience college undermatching may not have access to this information but understanding what school counselors know could have had interesting implications in this study. Lastly, the survey sample represents a small number of public high school counselors across the country. Therefore, it cannot be
assumed that all public high school counselors share the same sentiments of those who participated in the survey.

If this needs assessment is administered in the future, including the aforementioned information as well as a larger sample size could potentially affect the data results outlined in this chapter. One aspect of the survey results that could be explored further is culturally responsive college counseling. Although some quantitative items on the survey address this topic, the data from the other survey items seemed to stand out more. It may be interesting to dig further into culturally responsive college counseling as well as investigate postsecondary institutional fit from a cultural perspective.

**Conclusion**

The needs assessment sought to investigate how public high school counselors understand the concept of *college undermatching* as well as explore their attitudes towards their perceived role in college counseling. In addition, the needs assessment examined the supports and resources school counselors utilize to help their students navigate the college admission process, including how school counselors help their students identify the best postsecondary institutional fit. The next chapter reviews a social capital framework as it relates to a proposed intervention for the problem of practice of students of color who *college undermatch*. The chapter also explores intervention literature to determine what might be the appropriate approach to prevent *college undermatching*.

**Chapter 3**
Professional Learning to Expand School Counselors’ College Undermatching Knowledge

The needs assessment explored how school counselors define college undermatching, school counselor attitudes, and their perceptions of ways they are supporting students. Key findings included: of the public high school counselors who responded to the needs assessment, on average they agreed (4.52) that they can identify environmental factors, such as poverty, that can influence the college choice of students. In addition, respondents on average agreed (4.18) that their school offers sufficient college preparation resources for students to access during their high school career. Regarding meaningful engagement with a school counselor, on average school counselors disagreed (2.91) that their workload allows enough time for them to adequately provide college counseling for their students. Furthermore, on average school counselors agreed (4.46) that cultivating a college-going culture in their school is encouraged and supported by school administrators. However, respondents remained neutral (3.63) when asked if it is the primary responsibility of school counselors to ensure students find the best fit college or university. This data point aligns with the contributing factor of meaningful engagement with a school counselor (Corwin, Venegas, Oliverez, & Colyar, 2004; Hubbard, 1999) because it may be difficult for school counselors to do their jobs if they are unsure that helping students find the right fit university is part of their job. Yet, Belasco (2013) indicates that school counselors play an essential role in providing college counseling to students. Unfortunately, many school counselors feel underprepared in college admission counseling (Bridgeland & Bruce,
2011; Savitz-Romer, 2012b). Given the results of the needs assessment, it is essential to explore a potential intervention to address the problem of practice.

This chapter reviews empirical literature on professional learning (PL) to identify an appropriate PL opportunity for pre-service school counselors to enhance their college knowledge as well as increase their knowledge about college undermatching. In addition, the goal of the PL intervention is to provide pre-service counselors with peer support to enhance their college counseling practices. As noted in the previous chapter, most school counselors indicated that they understand the concept of college undermatching. The findings suggest, however, that counselors are less clear about their role with regard to determining student-college fit and while resources are available, it is also unclear whether the students access these resources or they align with the needs of students. Given the reported time constraints public high school counselors have to focus on college counseling (Clinedinst & Patel, 2018), it is essential to consider in-person and virtual professional learning as potential interventions for the problem of practice. This chapter first examines a social capital framework that provides the foundation for the proposed intervention, synthesizes the literature as a rationale for the proposed intervention, and concludes with a brief overview of the proposed intervention.

**Social Capital Framework**

As previously outlined in chapter one, students navigating the college-going process often rely on guidance from adults who can lend their knowledge and support to help them work through the admissions process. These adults can be parents or other family members, teachers, coaches, and school counselors. Beam, Chen, and Greenberger (2002) posit that parents are the most influential persons in children’s lives.
However, the authors argue that as children grow into adolescence, nonparental figures begin to play an even larger role in their development (Beam et al., 2002). Farmer-Hinton (2008) notes that students of color are less likely to have adults at home who can assist them in their college-going process; therefore, they need to rely on their school networks to help. These people can be referred to as “very important” nonparental adults or VIPs (Beam et al., 2002). Stanton-Salazar (2011) refers to these individuals as *nonfamily adult agents* and suggests that they are critical “in the social development and educational attainment of adolescents and young adults across class and racial strata” (p. 1067). Further, Stanton-Salazar (2011) posits the concept of *institutional agents* is central to his social capital framework because they are critical in sharing valuable information with students. Either way, access to social capital can greatly benefit students as they navigate the college search process.

**Social Capital and Institutional Agents**

Social capital is networks and relationships used to aid others in the receipt of information and resources (Bourdieu, 1986; Coleman, 1988; Lin, 1999). Situated within social capital are *institutional agents* who are defined as individuals, who are not kin, that use their position of authority or hierarchy to obtain and share highly valuable information (Stanton-Salazar, 2011). For instance, school counselors are institutional agents who have access to information such as academic requirements to be admitted into a postsecondary institution as well as how to complete the FAFSA for students to receive financial support. Within this concept of a social capital framework, Stanton-Salazar (2011) suggests that establishing relationships with institutional agents is essential for children and youths’ well-being, success in school, and integration into society. In
examining the disparities in college access based on SES and racial inequality, some researchers (Corwin et al., 2004; Stanton-Salazar, 1997; Yosso, 2005) have discussed how the variation in social networks tie into the concept of social capital for college (Hill et al., 2015). Social capital for college is defined as “resources that are accessible from social networks and have specific implications for college planning and college choice” (Hill et al., 2015, p. 317).

Having access to social capital greatly influences where students enroll in college, if they enroll at all (Hill et al., 2015). Further, researchers have suggested that African American and Latino students are embedded in social networks that are less likely to lead them to selective colleges and universities when compared with their White peers (Hill et al., 2015). Stanton-Salazar (2011) examines how institutional agents are instrumental in the lives of people from the working-class, middle-class, and upper-class and their access to social capital. First, Stanton-Salazar (2011) posits that upper-class, upper middle-class, and some middle-class people can construct cosmopolitan networks which are described as relationships with institutional agents from varying backgrounds who have access to a multitude of resources, privileges, and opportunities. This can include access to jobs, financial capital, political gain as well as academic achievement by students in schools (Stanton-Salazar, 2011). These institutional agents work in spaces that serve high-status communities and the higher the class of the individual, the more likely they will have access to elevated social capital. Stanton-Salazar (2011) also notes that institutional agents work in spaces such as schools, organizations, and institutions that serve exclusively a diverse range of middle-class individuals by providing valuable resources. Lastly, Stanton-Salazar (2011) argues that access to institutional support is
more difficult for those who are a part of the working-class and are from ethnic minority communities. Specifically, youth of lower-class status face more challenges accessing institutional support than their more affluent peers (Stanton-Salazar, 2011). However, when adults who have the capacity to provide the necessary resources and support to these students, they become institutional agents that empower this population to navigate places and spaces where traditionally their social status would not allow. As described in Figure 3.1, an institutional agent truly becomes valuable when he or she utilizes their access to social capital on behalf of others to share resources that may not typically be available because of social status.

**Figure 3.1**

*The Roles of Institutional Agents*

![Diagram showing the roles of institutional agents](image)

*Note.* Adapted from Stanton-Salazar (2011).
Literature Review

The review of literature in this chapter outlines potential professional development interventions that provide pre-service counselors with the knowledge and resources necessary to help prevent *college undermatching* for students of color. Webster-Wright (2009) suggests that for professional development to be effective, professional learning must be continuous. Boud and Hager (2012) confirm this sentiment by positing that professional development is “something that continues across the various stages of a professional career” (p. 20). Because pre-service counselors receive little to no college admission counseling training (Savitz-Romer, 2019; West, 2020), it is critical to identify a professional learning intervention to provide them with this information. Webster-Wright (2009) also references the concept of continuing professional learning which is described as “the learning of practicing professionals” (Webster-Wright, 2009, p. 705). Furthermore, the author also argues that professional development and professional learning are not mutually exclusive and the way in which professionals learn impacts their practice. For example, professionals may receive learning from formal professional development programs, engagement with their colleagues, or even from external sources (Webster-Wright, 2009).

Effectiveness of Professional Learning

To further understand professional learning (PL), it is necessary to determine what makes it effective. Penuel, Fishman, Yamaguchi, and Gallagher (2007) examined the tenants of effective PL outlined in the Garet, Porter, Desimone, Birman, and Yoon (2001) seminal report which examined teacher PL funded by the Eisenhower Professional Development Program. The Title II program under the Elementary and Secondary
Education Act (ESEA) focused on the development of knowledge and skills of teachers (Garet et al., 2001). The federally funded program was the largest investment in teacher PL. Although the Garet et al. (2001) study focused on the effect of teacher PL on students, one can argue that the core elements of the report are also applicable to school counselor PL.

The five core elements identified for effective PL are: (a) focus on content, (b) active learning, (c) coherence, (d) sustained duration, and (e) collective participation (Desimone & Garet, 2015; Penuel et al., 2007; Quick, Holtzman, & Chaney, 2009). Focus on content addresses what individuals are expected to learn and how they learn it. For example, school counselors who educate their students about postsecondary education should have access to and a fundamental understanding of the college admissions process. Active learning focuses on how individuals are engaged in learning. For instance, it is not enough to simply lecture to a group of school counselors during a PL experience. It is essential for them to process what they have learned and apply the concepts (Quick et al., 2009). This could be in the form observing a colleague, engaging in discussion with each other, or self-reflection (Quick et al., 2009). Quick et al. (2009) also suggest implementing feedback as a method of determining PL effectiveness. The third core element identified in effective PL, coherence, is a critical piece of professional learning (PL). Individuals should be able to make connections with what they have learned to the bigger picture and goals. Penuel et al. (2007) posit that if individuals perceive a PL experience to align with the goals of their school or district, they are more likely to find value in the learning. Further, Desimone and Garet (2015) suggest that sustained duration is necessary for effective PL. They argue that it is essential for PL to
be ongoing throughout the school year (Desimone & Garet, 2015). The fifth and final core element of effective PL is collective participation. Desimone (2009) describes this element as intentional collaboration among educators to create a learning community. This idea essentially connects to professional learning communities (PLCs) which will be discussed later in this chapter.

In addition to the five core elements just outlined, there are three structural features that further enhance the core features of effective PL: participation, setting of the PL experience, and duration (Penuel et al., 2007; Quick et al., 2009). For effective PL, it is important to have collective participation from all individuals. This allows for collaboration and affords individuals the opportunity to share best practices and learning experiences with each other. Penuel et al. (2009) suggest that collective participation improves teaching quality and creates a cultural of trust in the building. The setting in which the learning experience takes place is equally as important as collective participation. Additionally, situating PL opportunities within the context of the individuals is crucial to its effectiveness (Desimone & Garet, 2015; Quick et al., 2009). For example, Quick et al., (2009) suggest that PL should be implemented within the confines of a school, specifically during instructional or planning time that may be allotted to individuals. This allows participants to learn in an environment with which they are familiar and limits the time they must spend outside of the school day. Boud and Hager (2012) echo this sentiment by arguing that PL that occurs outside of one’s professional environment or context “is at odds with the biological roots of ‘development’, which imply that professional learning is an interaction of the professional with their particular professional work environment” (p. 21). Lastly, it is
important to be cognizant of the duration of PL. For PL to be effective, Quick et al. (2009) suggest that offerings are spread out over time, in both hours and content, as it allows for multiple opportunities for engagement and collaboration.

In addition to effective PD, understanding how individuals learn is critical to creating PL experiences that will make a lasting impression. Boud and Hager (2012) argue that it is necessary to understand how individuals learn and under what circumstances they learn the best to be able to develop the most appropriate learning experience. The authors specifically reference two perspectives: (a) a practice approach to understanding PL and (b) how work influences learning. Practice is not just the application of knowledge nor is it homogenous. Practice evolves and changes just as professionals do as they transform throughout their career. The authors also posit that practice is difficult to predict in advance because it is ever-evolving (Boud & Hager, 2012). Regarding how work influences learning, Boud and Hager (2012) specifically say, “Nothing influences learning more powerfully unconsciously than the everyday circumstances of work itself” (p. 24). The authors further note that the workplace offers its own sets of “challenges and opportunities” that drive learning (Boud & Hager, 2012, p. 24).

Professional Learning Communities

Studies have explored the impact of professional learning communities (PLCs) on teacher learning (Bolam et al., 2005; DuFour, 2004; McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2013), however, there is a gap in studies that explore how PLCs impact school counselors. Because of this absence, this section reviews PLCs as they pertain to teacher learning and development. In the literature, PLCs have varying
definitions. For example, when the term PLCs first emerged, DuFour (2004) categorized them as a gathering of a group of people who have an interest in education. Vescio, Ross, and Adams (2008) suggest that PLCs can positively affect teaching culture through continuous learning. Furthermore, Hipp and Huffman (2010) posit that PLCs are the most productive form of continuous learning and learning within PLCs is not casual but is intentional and collegial. As the concept of PLCs has evolved, Blitz (2013) contends that PLCs are “teams of educators who get together regularly to exchange ideas” (p. i) while Battersby and Verdi (2015) define PLCs as “creating a collaborative professional culture” (p. 23). In addition, McConnell and colleagues (2013) suggest that PLCs contribute to increased professional knowledge of teachers as well as improved student achievement. Battersby and Verdi (2015) echo this sentiment by arguing that not only are PLCs legitimate forms of PD, but they are effective in “improving student achievement and teacher quality” (p. 24).

To understand how PLCs operate, it is essential to recognize the characteristics of effective PLCs. Hord (1997) suggests there are five essential characteristics of PLCs: (a) supportive and shared leadership, (b) collective creativity, (c) shared values and vision, (d) supportive conditions, and (e) shared personal practice. DuFour’s (2004) PLC model also identifies student learning and collaboration as important characteristics of PLCs. However, DuFour (2004) notes that it takes hard work to implement and sustain PLCs. Educators must be committed to the process, “focus on learning rather than teaching,” and hold themselves accountable to ensure improvement in student learning (DuFour, 2004, p. 11). Vescio et al. (2008) reiterate this idea by positing that just using the term PLC, in fact, does not mean that a learning community exists. They argue that
educators must focus on the results of their efforts to improve student achievement (Vescio et al., 2008).

What has been discussed in the literature about PLCs has been done so with teachers as the focal point. However, the characteristics of PLCs are also applicable to pre-service counselors who are the primary focus of the proposed intervention which will be discussed later in this chapter. One example of the implementation of a PLC is from Strahan (2003). The author reanalyzed data from a three-year case study conducted in the year 2000 at three elementary schools who implemented PLCs. These schools had a high number of students on free and reduced lunch where more than three-fourths of those students comprise ethnic minority populations (Strahan, 2003). Prior to the study, less than half of the students from the groups previously mentioned “scored at or above grade level” on their state’s end of grade exam (Strahan, 2003, p. 128). The author utilized the previous data and conducted interviews with teachers and administrators at the three elementary schools to examine how collaborative learning practices implemented at those schools impacted student achievement. At one school the results of the collaborative community allowed the teachers and the principal to have engaging dialogue about continued PL and collectively understand expectations. This school also saw significant increases in their students’ achievement test scores (Strahan, 2003).

Another example of the implementation of a PLC is from Hollins, McIntyre, DeBose, Hollins, and Towner (2004) who conducted a research study to implement a self-sustaining teacher learning community with the goal of improving literacy of African American students at a low-performing, high-poverty elementary school. The two-year study primarily utilized a qualitative method approach, including focus groups,
interviews, meeting transcriptions, field notes, and informal conversations, for the implementation of the learning community with the hope of continuous teacher collaboration to help change their mindsets pertaining to their work (Hollins et al., 2004). The intervention resulted in some of the teachers recognizing their need to understand their students’ backgrounds (e.g. parent information, suspension history, test scores, etc.) to meet their needs. Others explored how culture plays a role in teaching and implemented new teaching strategies to better connect with their students.

These two examples highlight successes from the implementation of PLCs at schools that not only helped improve the achievement of students of color, but also influenced change in teacher attitudes. Given the successes previously mentioned, implementing PLCs among school counselors could potentially achieve similar results to help prevent college undermatching among students of color. Given that the role of school counselors is unique within schools, engaging in a virtual professional learning community may be the most effective way for them to enhance their learning.

**Connectivism in Professional Learning**

As previously mentioned, a challenge that school counselors face when providing college counseling to their students is having adequate time to do so because of their workload. Because of this challenge, engaging in an in-person learning community may prove to be difficult. Brindley, Walti, and Blaschke (2009) suggest “in a collaborative learning environment, knowledge is shared or transmitted among learners as they work towards common learning goals” (p. 3). Referencing Siemens’ (2005) learning theory about connectivism, the authors suggest that learning in the digital age relies on learning networks that include other people, the Internet, and even social networks. Siemens’
learning theory on connectivism posits that learning in an online environment is most successful because of interactive and engaging dialogue. In addition, Siemens (2005) posits that learning ecologies serve as important conduits of information and the co-construction of knowledge. For example, Siemens (2007) suggests that the evolution of technology has forced us to reconceptualize education today. The author specifically identifies two aspects that must be considered to restructure how we learn:

1. “The spaces of learning (a move from classrooms to ecologies)

2. The structures of learning (from hierarchical content to networked content)”

(Siemens, 2007, p. 53).

Given Siemens’ (2005;2007) thoughts on connectivism and ecologies, creating an online learning environment for per-service counselors may be a promising solution to provide them with the college admission counseling training they need.

However, constructing an online learning community is more complex than some may think. It is not simply a matter of inviting participants to an online platform and expecting robust conversation. Participants must actively engage in dialogue to ensure success of the community (Booth, 2012) and there must be set expectations and structure. Some advantages of online professional learning include: (a) flexibility of time, (b) lower price-points, and (c) timely access to information (Blitz, 2013). Online communities also offer support among colleagues (Booth & Kellogg, 2015) as well as provide access for educators who may live in rural isolated areas (McConnell et al., 2013). Booth and Kellogg (2015) also argue that leveraging technology to deliver PL combats the economic strain from face-to-face PL experiences. However, there are also challenges in a virtual learning environment. For instance, motivation to engage with colleagues online
is lower than in a face-to-face interaction (Blitz, 2013). Blitz (2013) also contends that transitioning from an in-person professional development experience to an online one may present technology challenges for individuals who may not be as tech savvy as others. Given the pros and cons of virtual professional development, Blitz (2013) suggests creating hybrid PLCs that allow for both in-person and virtual learning experiences.

To determine the best method of delivery of PL, McConnell et al. (2013) conducted a study about teachers’ perceptions of virtual PL versus in-person PL. One of the research questions addressed in their study is “How do videoconference PLC meetings compare to face-to-face PLC meetings” (p. 268)? The authors utilized a problem-based learning framework for the study which consisted of a cohort of 54 teachers split into 11 learning communities. Led by a group facilitator, the groups met monthly with nine of the learning communities meeting face-to-face (professional learning communities) and two meeting virtually through video conferencing (virtual professional learning communities). The program was one year in duration and led the authors to two conclusions: (a) the participants in the virtual PLCs experienced the same benefits as participants in the face-to-face PLCs and (b) virtual PLCs are a viable option when face-to-face meetings are not practical (McConnell et al., 2013).

Another example of implementing a virtual PLC is the multiple-case study qualitative research project conducted by Booth (2012). The author sought to understand how knowledge sharing and trust are cultivated and sustained online and utilized two cases for the study. The first case included an online community comprised of a larger network of teacher communities led by a facilitator who invited participants into the
group. The second case included a group of K-12 English teachers that was facilitated by a seasoned English teacher and acclaimed author. Membership to this group was open but required participants to register. Data sources included interviews with the moderator of each community, interviews with eight members from each community, and community documentation. Regarding knowledge sharing, the results indicated that each community created a range of activities and opportunities for knowledge sharing such as blogs, webinars, book reviews, newsletters, and even a web-based institute (Booth, 2012). To sustain knowledge sharing, members from both groups credited their facilitators with leading the charge and providing support. Regarding cultivating trust, members of each group indicated they felt a level of comfort that allowed them to share their ideas and engage in dialogue in a safe space. For sustaining trust, group members indicated that their respective facilitators played a crucial role in that area. In the instance of negative behavior in the group, one of the facilitators requested the assistance of other community members to model appropriate behavior (Booth, 2012).

**Pre-Service Counselor Virtual Professional Learning Community**

The proposed intervention for the problem of practice is to establish a virtual professional learning community (Virtual PLC) for pre-service counselors. Pre-service counselors are the focus of the intervention because they often receive little to no college admission counseling training in their school counseling graduate programs (Bryan et al., 2011; Savitz-Romer, 2012a). The intervention design and implementation are informed by the research related to professional development, professional learning, and professional learning communities.

**Develop and Implement a Pre-Service Counselor Virtual PLC**
Research suggests that participation in an online learning community leads to immediate satisfaction and the acquisition of new knowledge and resources (Booth and Kellogg, 2015). Wenger, Trayner, and de Laat (2011) developed a value creation framework to assess the value of online learning communities. The authors describe value creation “as personal learning enabled through community involvement, knowledge sharing, and networking” (Wenger et al., 2011). Further, as a part of their value creation framework, Wenger et al. (2011) developed five cycles of value creation: (a) immediate value, (b) potential value, (c) applied value, (d) realized value, and (e) reframing value. The authors suggest that engagement in the five cycles of value creation allows learning to be leveraged and improvement in practices (Booth & Kellogg, 2015; Wenger et al., 2011). Booth and Kellogg (2015) suggest that participating in an online community provides immediate value to educators because they may feel isolated in their position. Further, Duncan-Howell (2010) posits that continuous engagement in an online community creates a sense of belonging. As such, participation in an online community affords professionals the opportunity to share and receive valuable pieces of information as well as offer encouragement (Hur & Brush, 2009).

Pre-service counselors must navigate their graduate courses as well as their field experiences leaving them limited time to participate in PL programs, especially in-person. Although Blitz (2013) suggests utilizing a hybrid approach to PLCs, the participants in the intervention are enrolled in different mid-Atlantic universities making it difficult to meet in-person. Instead, the intervention will consist of a series of virtual meetings that allow the participants to engage in college counseling best practices as well as dialogue about preventing college undermatching. Delivering professional
development online allows pre-service counselors to participate within their own environment which several authors in the literature review reiterated as a necessary component to effective professional learning (Boud & Hager, 2012; Desimone & Garet, 2015; Quick et al., 2009). Pre-service counselors from the mid-Atlantic will participate in the intervention which will be delivered via an online meeting platform. The intervention will take place in the spring as it coincides with the initial phase of the college search process for high school juniors.

**Conclusion**

Participants in the proposed intervention will have the opportunity to join a community of peers without the complexities of traveling to an in-person PL program. For PL to be successful, it is critical for learning to occur within an individual’s environment (Boud & Hager, 2012; Desimone & Garet, 2015; Quick et al., 2009). The goal of this virtual PLC is to provide pre-service counselors with the opportunity to enhance their college counseling knowledge as well as increase their knowledge about college undermatching and supporting students of color in the college admission process. The following chapter outlines the details of the intervention such as the intervention design, the participant recruitment process, and the methodology utilized to evaluate the process and outcomes of the proposed intervention.

**Chapter 4**

**Intervention: Pre-Service Counselor Virtual Professional Learning Community**

As indicated in the previous chapter, school counselors serve an important role in the college-going process because they possess the social capital necessary to assist students in their college search (Gilfillan, 2018). Although some needs assessment
participants indicated they are not primarily responsible for helping students find the right college fit, the literature in chapter three challenges that belief (Belasco, 2013; Stanton-Salazar, 2011). Belasco (2013) asserts that school counselors play an integral role in providing college counseling to their students while Stanton-Salazar (2011) stresses the importance of *institutional agents* within a social capital framework because they share highly valuable information and greatly influence how youth develop. The concept of *institutional agents* is applicable to school counselors because many of them serve as gatekeepers of college-going information and students who have access to this information are more likely to enroll in college (Hill et al., 2015).

Practicing school counselors were the intended population to participate in the intervention. However, the COVID-19 pandemic created significant challenges to secure practicing school counselors. Thus, the focus population for the intervention was pre-service school counselors because once they transition to practicing school counselors, they may serve as a primary source of information about the college-going process. In addition, school counselors are typically required to have a master’s degree to practice in schools, but oftentimes graduate programs do not require a college admission counseling course as part of that degree (Bryan et al., 2011; Savitz-Romer, 2012a). Rather, school counseling graduate programs tend to focus more on mental health support for students (West, 2020). For example, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) established a set of standards graduate counseling programs must meet to be CACREP accredited (CACREP, 2020). As part of the standards for school counselors, CACREP (2020) requires pre-service counselors have a foundation in the following five areas:
1. History of school counseling.

2. Models of school counseling programs.

3. Models of comprehensive career development.


5. Assessments specific to K-12 education.

However, there is no foundational requirement for college admission counseling training for accredited school counseling graduate programs. Perhaps school counselors believe they are not responsible because they may not have received the proper college admission counseling training during their graduate program. Based on this belief, the researcher recruited pre-service counselors as part of the intervention.

This chapter outlines an intervention designed to:

1. Increase pre-service school counselors’ college undermatching knowledge.

2. Understand pre-service school counselors’ current college counseling knowledge.

3. Examine pre-service school counselors’ perception of their role in supporting students of color in the college-going process.

The intervention is guided by the following research questions:

RQ1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and college undermatching?

RQ2: What is the level of fidelity achieved in the virtual professional learning community?
RQ3: How do pre-service school counselors describe their experience participating in the virtual professional learning community?

RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?

RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of their role in supporting students of color in the college-going process?

**Research Design**

The intervention study used a convergent parallel design (see Figure 4.1). This mixed methods approach allows for quantitative and qualitative data to be collected simultaneously, analyzed independently, and the results are merged and triangulated for interpretation (Creswell & Plano Clark, 2018). This design also allows for data collection and analysis to occur over a shorter period of time.

**Figure 4.1**

*Convergent Design*

*Note.* Adapted from Creswell and Plano Clark (2018).
Theory of Treatment

The research design for the intervention was developed around a theory of treatment that informed a logic model and includes anticipated inputs, outputs, and outcomes of the intervention (see Figure 4.2). The following theory of treatment is the foundation for the intervention: educating pre-service school counselors about the contributing factors of college undermatching will add to their college counseling knowledge and hypothetically help prevent college undermatching by the students of color they serve. To describe what happens during an intervention to affect change, Leviton and Lipsey (2007) suggest using a four-step model. First, identify the problem, which in this case, students of color tend to college undermatch at high rates. Next, Leviton and Lipsey (2007) suggest identifying the essential inputs to affect change. These inputs describe what is necessary and sufficient to produce the intended results (Leviton & Lipsey, 2007). For this intervention, these inputs include: 4-7 pre-service school counselors, an online meeting platform, access to internet as well as a computer or mobile device, and full participation in the intervention. The third step of the model describes “the transformation process that the treatment brings about, the intervening or mediating variables on which the process is contingent, and the crucial interactions with individual differences, timing, mode of delivery, or other relevant circumstances” (Leviton & Lipsey, 2007, p. 36). This step refers to the transformation of the participants throughout the treatment. Lastly, the fourth step of the model specifies the outputs which includes pre-service school counselors’ enhanced knowledge about college undermatching as measured by the post-intervention College Counseling Knowledge Instrument (see Appendix B).
Logic Model

The details for implementing the intervention are outlined in the logic model which include the inputs, outputs, and short-, medium-, and long-term outcomes (see Figure 4.2). Inputs include the pre-service school counselors, their completion of a pre-intervention knowledge instrument, access to a device with reliable internet connection, and full participation in the intervention. For outputs, activities include a post-intervention knowledge instrument, one 90-minute virtual meeting session, two 60-minute virtual meeting sessions, two five-minute post-virtual meeting surveys, a post-intervention experience survey, and a 90-minute follow up virtual focus group where the participation includes 4-7 pre-service school counselors.

Figure 4.2

Logic Model

Process Evaluation
For a program or intervention to be successfully implemented, the components of the program must be evaluated. Creating a program process evaluation allows a researcher to determine how well a program is operating (Rossi, Lipsey, & Freeman, 2004). This process does not focus on one component, but rather on multiple components (Rossi et al., 2004). The following three research questions in this study relate to process evaluation:

RQ1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and college undermatching?

RQ2: What is the level of fidelity achieved in the virtual professional learning community?

RQ3: How do pre-service school counselors describe their experience participating in the virtual professional learning community?

Dusenbury, Brannigan, Falco, and Hansen (2003) posit that evaluation of a program allows a researcher to attribute outcomes to the intervention activities. Dusenbury and colleagues also note that program evaluation requires fidelity of implementation. Fidelity of implementation is defined as “the degree to which teachers and other program providers implement programs as intended by the program developers” (Dusenbury et al., 2003, p. 240). This approach essentially asks if what was planned for the implementation of a program occurred during the program. For the intervention, fidelity of implementation was measured using the process evaluation plan and consisted of three parts: project implementation, context, and reach. Table 4.1 shows the details of the
process evaluation, including research questions, indicators, data sources, data collection tools, frequency, and data analysis.

### Table 4.1

**Process Evaluation Matrix**

<table>
<thead>
<tr>
<th>Process Evaluation Question</th>
<th>Process Evaluation Indicator</th>
<th>Data Sources</th>
<th>Data Collection Tools</th>
<th>Frequency</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and college undermatching?</td>
<td>Participant perceptions of how the information delivered in the intervention enhanced their previous college counseling and college undermatching knowledge.</td>
<td>Pre-service Counselors</td>
<td>MM: Session Feedback Survey</td>
<td>Data was collected after the first and second virtual meeting sessions.</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ2: What is the level of fidelity achieved in the virtual professional learning community?</td>
<td>Pre-service counselor attendance at each virtual meeting session and the content pre-service counselors received during the intervention.</td>
<td>Researcher</td>
<td>QUANT: The researcher recorded participant attendance for each virtual meeting session.</td>
<td>Attendance was collected at the beginning of each virtual meeting session.</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pre-service Counselors</td>
<td>MM: Session Feedback Survey</td>
<td>Participants completed the survey after the first and second virtual meeting sessions.</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ3: How do pre-service school counselors describe their experience participating in the virtual professional</td>
<td>Participant perspectives of their experiences in the intervention, including what they enjoyed and what they found challenging.</td>
<td>Pre-service Counselors</td>
<td>QUAL: Post-intervention focus group</td>
<td>Data was collected during the post-intervention focus group.</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MM: Professional</td>
<td>Participants completed the</td>
<td>Descriptive statistics;</td>
</tr>
</tbody>
</table>
**Project Implementation.** When implementing a program or intervention, it is essential for researchers to consider utilizing a framework to support the process. The project implementation for this intervention is outlined in the logic model (see Figure 4.2). For this research study, the process evaluation specifically examined pre-service school counselors’ college counseling knowledge as well as their understanding of *college undermatching*.

**Context.** As previously mentioned, delivering professional development online allows individuals to participate within their own environment which is a necessary component of effective professional learning (Boud & Hager, 2012, Desimone & Garet, 2015; Quick et al., 2009). When implementing an intervention, a researcher must consider the context to understand the environment in which participants operate. Baranowski and Stables (2000) refer to context as a setting in which a program occurs. There are various contextual factors that may affect pre-service counselors’ participation in the intervention. For example, pre-service counselors spend their time attending in-person classes for their graduate programs as well as in their field experiences which may not afford them the time and space to fully participate in an in-person intervention. In addition, some pre-service counselors may have a private space in their living quarters to participate in online learning while others may have a shared space with other individuals. Furthermore, some pre-service counselors may hold a job outside of their graduate studies to ensure they have an income. Although literature suggests that participation in online learning provides flexibility (Blitz, 2013), the aforementioned
aspects may provide challenges for pre-service counselors to participate in the intervention.

**Reach.** The last component of process evaluation that was measured for this study is reach. Baranowski and Stables (2000) define reach as the “extent to which the program contacted or was received by the targeted group” (p. 160). Reach can be evaluated by depth (qualitative aspect) which measures how much content the participants receive as well as spread (quantitative aspect), which measures how many participants received the information (Baranowski & Stables, 2000). To evaluate reach by depth, the researcher analyzed results of the Session Feedback Survey. For this study, reach by spread was measured by the number of pre-service counselors who participated in the intervention. To measure reach by spread, the researcher took attendance of who participated in each session, despite the small sample size. Evaluating reach also allowed the researcher to determine if there is participation bias or if the intervention is inefficient (Baranowski & Stables, 2000). The researcher controlled for this by informing participants they could leave the intervention at any point.

**Outcome Evaluation**

For a program or intervention to be successfully executed, it is critical to evaluate the proximal outcomes. Rossi and colleagues (2004) refer to an outcome as “the state of the target population or the social conditions that a program is expected to have changed” (p. 204). This section presents the outcome evaluation questions, followed by the outcome evaluation plan design. An outcome evaluation matrix with outcome evaluation details is also presented. The following outcome evaluation questions are:
RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?

RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of their role in supporting students of color in the college-going process?

To help answer these questions, pre-service counselors participated in a post-intervention focus group (see Appendix D) and completed the Professional Learning Experience Survey (see Appendix E). Table 4.2 outlines the outcome evaluation plan in detail including the research questions, indicators, data sources, data collection tools, frequency, and data analysis.

Table 4.2

Outcome Evaluation Matrix

<table>
<thead>
<tr>
<th>Outcome Evaluation Question</th>
<th>Outcome Evaluation Indicator</th>
<th>Data Sources</th>
<th>Data Collection Tools</th>
<th>Frequency</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?</td>
<td>Pre-service counselor preparedness to provide college counseling to students.</td>
<td>Pre-service Counselors</td>
<td>QUAL: Post-intervention focus group</td>
<td>Three days after the conclusion of the intervention in April 2020.</td>
<td>In Vivo and descriptive coding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MM: College Counseling Knowledge Instrument</td>
<td>One day after the conclusion of the intervention in April 2020.</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of</td>
<td>Pre-service counselor preparedness to advise students of color.</td>
<td>Pre-service Counselors</td>
<td>QUAL: Post-intervention virtual focus group</td>
<td>Once after the conclusion of the intervention in April 2020.</td>
<td>In Vivo and descriptive coding</td>
</tr>
</tbody>
</table>
Outcome Evaluation Design. To evaluate the outcomes of a program or intervention, it is essential for researchers to consider an appropriate evaluation design. When choosing a mixed methods design, the researcher should consider the interconnectedness of the following: the research problem, the research purpose, the research question, and the research design (Mertens, 2018). Utilizing a mixed methods approach to a research study allows for the strengths and weaknesses of quantitative and qualitative research to balance each other out (Creswell & Plano Clark, 2018). Smith, Cannata, and Haynes (2016) suggest that mixed methods is beneficial in studying a complex phenomenon. College undermatching is a complex phenomenon that includes multiple contributing factors. Utilizing a mixed methods approach may aid in understanding pre-service school counselors’ knowledge of college undermatching as well as how and why it occurs (Smith et al., 2016). In addition, a mixed methods paradigm serves as a connector between quantitative and qualitative data and provides researchers with more evidence for a research study than either approach can independently (Creswell & Plano Clark, 2018).

Mertens (2018) posits that a mixed methods approach to research helps address complex issues and contexts “that involve multiple interacting systems, are replete with social and institutional uncertainties, and for which only imperfect knowledge about their nature and solutions exists” (p. 7). The intervention was designed for pre-service school counselors, but the outcomes of the intervention may have implications for those they
serve which includes students as well as the parents and families of the students. Although pre-service school counselors were the primary target population for the intervention, other stakeholders are affected by the intervention outcomes. The American School Counselor Association (ASCA) designed the School Counselor Professional Standards and Competencies to identify the mindsets and behaviors school counselors need to possess when working with students (ASCA, 2019a). The fifth mindset specifically states, “Effective school counseling is a collaborative process involving school counselors, students, families, teachers, administrators, other school staff and education stakeholders” (ASCA, 2019a, p. 2).

Method

The following section outlines the details of the intervention such as the participants, data measures and instrumentation, and procedure. In addition, the intervention components and data analysis process are reviewed.

Participants

For this study, recruitment emails were sent to three mid-Atlantic universities that offer school counseling graduate programs. These emails were advertised to the school counseling graduate student listservs and included the consent form that outlined details of the study. Those who participated were required to give their consent prior to the start of the intervention. For this study, the researcher utilized a purposive and convenience sampling approach to identify the final participants. The final number of participants was four pre-service school counselors who were chosen on a first-come, first-serve basis. The participants had to be enrolled in graduate school counseling programs to participate in the study as well as be in the process of completing their field experiences. The
researcher required this for the study in hopes the pre-service counselors may be able to apply what they learned in the intervention with their students.

Measures and Instrumentation

The researcher utilized several instruments to collect and measure the intervention data. The researcher created many of the instruments and adapted one to fit the intervention.

**College Counseling Knowledge Instrument.** The researcher crafted this 5-item instrument to measure participants’ understanding of *college undermatching* as well as how school counselors influence students’ college admission behaviors (see Appendix B). For example, the first statement asks participants to define *college undermatching* while another statement asks participants to identify perceptions high-achieving students from low-income backgrounds likely have about college. The participants completed the College Counseling Knowledge Instrument two days prior to the intervention and again at the conclusion of the intervention. Data about how the intervention changed pre-service counselors’ college counseling knowledge was collected from participants’ responses to the following five statements in the instrument:

1. Define *college undermatching*.
2. Students from low-income households who are high-achievers are more likely to perceive the following about college (choose all that apply).
3. High school seniors who engage one-on-one with a school counselor are 6.8 times more likely to complete the Free Application for Federal Student Aid (FAFSA).
4. High school seniors who engage one-on-one with a school counselor are X times more likely to attend college.
5. High school seniors who engage one-on-one with a school counselor are two
times more likely to attend a college with a bachelor’s degree program.

The results of the College Counseling Knowledge Instrument are discussed in the next chapter.

**Professional Learning Experience Survey.** The researcher adapted the 6-item Professional Learning Experience Survey from the National Staff Development Council Professional Development Guide (Haslam, 2010) and used it to evaluate participants’ views on their professional learning experience in the intervention. The original survey included eight questions, two of which asked about the support individuals received from their supervisors to participate in a professional learning experience. The researcher excluded those two questions because they were irrelevant to the pre-service counselors who participated in the intervention. The researcher also included a question on the survey that asked participants to describe the likelihood they would participate in a future virtual professional learning community. This question was not part of the original Haslam (2010) survey. The researcher distributed the survey to the participants at the conclusion of the final virtual meeting session.

A survey item about how the participants perceive the purpose of the professional development experience stated, “Which of the following statements best describes the primary purpose of the virtual professional learning community?” Participants chose one response from six statements ranging from “To communicate new ideas for me to use in my college counseling practices” to “Not clear.” A question about the usefulness of the professional learning experience asked, “Which of the following statements best describes the usefulness of the virtual professional learning community?” Participants
then chose one statement from six options ranging from “It was a good start” to “It’s too soon to tell.” To determine if the intervention met the participants’ needs, a survey item stated, “Indicate the extent to which the virtual professional learning community met your professional learning needs.” Participants then choose one response from four options that ranged from “It addressed my professional learning needs completely” to “This professional development did not help much because I was already familiar with this topic.” A question about the pre-service counselors’ likeliness to participate in another virtual professional learning community was asked on a 5-point Likert scale and included the following responses: (1) very unlikely, (2) likely, (3) neither unlikely or likely, (4) likely, and (5) highly likely. The original survey did not include a scoring component and the researcher did not create one for the adapted version. Because there was no scoring component, descriptive statistics were used to analyze the results of the survey which were then interpreted by the researcher.

**Focus Group.** The researcher conducted a virtual semi-structured focus group three days after the final virtual session meeting utilizing the Zoom meeting platform. The researcher crafted eight questions and grouped them into three categories: (a) experience participating in a virtual professional learning community, (b) pre-service school counselors’ college counseling knowledge, and (c) pre-service school counselors’ knowledge of college undermatching. Questions about pre-service counselors’ experience participating in a virtual professional learning community were asked in an open group format and included determining what the participants enjoyed the most and the least during their time in the intervention. The participants were also asked what they found the most challenging about participating in a virtual professional learning
community. To further understand pre-service counselors’ college counseling knowledge by taking part in the intervention, they were asked “As a result of your participation in the virtual learning community, how do you think your college counseling knowledge have changed?” and “As a result of your participation in the virtual learning community, how has your perception of your role in helping students navigate the college-going process changed?” Finally, in reference to college undermatching, participants were asked the following two questions: (a) “How has your knowledge about college undermatching changed?” and (b) “Moving forward how will you help marginalized students of color find the right college match?”

Session Feedback Survey. The researcher created the five-item Session Feedback Survey (See Appendix C) to evaluate the pre-service counselors’ experiences during the intervention. The researcher distributed the survey to the participants at the conclusion of the first two virtual meeting sessions. For example, the first question asked about participants’ level of engagement during the first two virtual meeting sessions and directed participants to choose one response from a 6-point Likert scale: (1) strongly agree, (2) agree, (3) somewhat agree, (4) somewhat disagree, (5) disagree, and (6) strongly disagree. In addition, the Session Feedback Survey asked participants to describe how they can apply what was learned in the virtual meeting sessions to their college counseling practices. Furthermore, the survey directed participants to share the content they wanted the researcher to address in subsequent sessions.

Procedure

To formally participate in the intervention, the pre-service counselors had to complete a consent form one week prior to the first virtual meeting session. Once a
participant submitted a completed consent form, the researcher signed it and returned a copy to each participant. The pre-service counselors then participated in three virtual meeting sessions via Zoom to address varying aspects of college undermatching and college counseling. The first meeting session served as an introduction to the study and lasted 90 minutes while the remaining two sessions lasted 60 minutes. The virtual meeting sessions occurred once a week for three weeks from March 2020 to April 2020. The virtual meeting sessions are discussed in further detail in the next chapter.

Data Collection and Analysis

Once participants were recruited and committed to being part of the intervention, the researcher emailed them the College Counseling Knowledge Instrument two days prior to the first virtual meeting session to evaluate their understanding of college undermatching as well as how school counselors can influence college-going behaviors (see Appendix B). At the conclusion of the third and final virtual meeting session, the researcher emailed the participants the College Counseling Knowledge Instrument again to evaluate how their understanding of college undermatching as well as how their college counseling knowledge evolved as a result of the intervention. At the conclusion of final virtual meeting session, the researcher also emailed the participants the Professional Learning Experience Survey adapted from Haslam (2010) (see Appendix E). Three days after the final virtual meeting session, the participants took part in a 90-minute semi-structured focus group. (see Appendix D).

Data Analysis. Table 4.3 outlines the data analysis for each of the process and outcome evaluation questions. To analyze the quantitative data, the researcher utilized descriptive statistics from the results of the College Counseling Knowledge Instrument as
well as the Professional Learning Experience Survey. To analyze the qualitative data, the researcher utilized a descriptive and InVivo coding approach (Miles et al., 2014) to code the focus group transcription and determine emergent themes.

**Table 4.3**

*Research Question Data Analysis*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collection</th>
<th>Collection Timeline</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and college undermatching?</td>
<td>Session Feedback Survey</td>
<td>March-April 2020</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ2: What is the level of fidelity achieved in the virtual professional learning community?</td>
<td>Attendance Records Session Feedback Survey</td>
<td>March-April 2020</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ3: How do pre-service school counselors describe their experience participating in the virtual professional learning community?</td>
<td>Post-intervention focus group Professional Learning Experience Survey</td>
<td>April 2020</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?</td>
<td>Post-intervention focus group College Counseling Knowledge Instrument</td>
<td>March and April 2020</td>
<td>Descriptive statistics; In Vivo and descriptive coding</td>
</tr>
<tr>
<td>RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of their role in supporting students of color in</td>
<td>Post-intervention focus group</td>
<td>April 2020</td>
<td>In Vivo and descriptive coding</td>
</tr>
</tbody>
</table>
Conclusion

School counselors are nonparental adults who are critical to adolescent development (Stanton-Salazar, 2011) and often serve as a primary source of information for the college application process. Because college admission counseling training is rarely required in school counseling graduate programs, the intervention served to provide additional training to pre-service school counselors. The researcher collected quantitative and qualitative data through various methods including a knowledge instrument, surveys, and a focus group. The data provided insight into the experiences of the pre-service counselors during the intervention as well as how the intervention affected their college counseling and college undermatching knowledge. The next section shares the results of the intervention, discusses limitations, and outlines future implications.

Chapter 5

Findings

The purpose of the intervention was to expand pre-service school counselors’ college undermatching knowledge, to help the researcher understand pre-service school counselors’ current college counseling knowledge, and to help participants examine their perception of their role in supporting students of color in the college admission process. The researcher selected participants utilizing purposive and convenience sampling. The researcher recruited pre-service school counselors as the sample population because they will be transitioning to practicing school counselors in the near future. Participants were recruited from three mid-Atlantic universities since the researcher had relationships with the institutions. The pre-service counselors had to be at the end of their graduate program
and in the process of completing their field study at the time of the intervention. Ultimately, four pre-service counselors participated in the intervention. What follows is a discussion of the sample, the implementation of the intervention, and the research questions.

**Participants**

As previously mentioned, four pre-service counselors participated in the intervention: three identified as female and one identified as male. All four participants identified as white. Three of the students, Jessie, Frank, and Catherine, attended the same mid-Atlantic postsecondary institution while the fourth intervention participant, Lisa, attended a different mid-Atlantic university. At the time of the intervention, all four participants were participating in their field experiences, however, due to COVID-19, schools closed, and participants were unable to complete their field experiences in person.

What follows is a brief description of each of the intervention participants’ backgrounds. These narratives provide insight into the participants’ lived experiences with college counseling at both the personal and professional levels. Some participants also chose to share information about their family backgrounds and how they experienced the college-going process. Three participants indicated their field experiences took place in suburban high schools where students of color comprise much of the population. Two participants grew up in households at opposite ends of the socioeconomic spectrum. In addition, one participant lived in a two-parent home where both parents attended college while another participant grew up in a single-parent home where she was a first-generation college student. Furthermore, one participant matriculated to community
college after high school before transferring to a four-year institution. Despite the differences in some of the participants’ backgrounds and postsecondary experiences, they all ended up in the same space with the same aspirations of becoming school counselors.

Frank grew up in a middle-class household with two parents who are college graduates and were always employed. He shared how he recognizes his privilege because he and his family did not have to worry about finances. He also shared his experiences having a learning disability in high school and the assumptions and biases he experienced navigating the college-process. Frank’s field experience took place in a school where there was either a college counselor or college and career specialist who oversaw most college counseling activities. Because of this, Frank experienced limited college counseling training in his internship.

Jessie grew up in a low-income household as a first-generation college student whose father did not graduate from HS. She applied to three postsecondary institutions and was only accepted to the local community college. She expressed she did not understand that she had other college options. Jessie shared that she proudly wore her community college lanyard during her internship and found it was a conversation starter with students who expressed negative thoughts about attending a community college. She also shared that during her internship, she experienced instances where school counseling staff categorized students as either “good students” or “bad students” dependent upon their aspirations to attend a four-year institution, enroll in a community college, or transition directly into the workforce after high school. Jessie participated in all three virtual meeting sessions but did not participate in the post-intervention focus group.
Lisa chose not to share her family background nor did she share her postsecondary education experiences, but she expressed that she wants to use her identity as a future school counselor to let students of color know they have options regarding college choices. She shared that in the school where she completed her internship, the college-going process was not discussed with students until their senior year which she indicated is too late. She wants to present options and talk about the college-going process early. Although Lisa’s internship was in a high school, she secured a job as an elementary school counselor.

Like Lisa, Catherine opted to not share information about her family background or postsecondary experiences. Catherine completed her internship at a suburban high school where students of color comprise much of the student population. Like Frank, Catherine’s field experience took place in a school where there was either a college counselor or college and career specialist who oversaw most college counseling activities. Because of this, Catherine experienced limited college counseling training in her internship. The participants’ backgrounds and experiences may have attributed to how they experienced the intervention. The following section discusses the intervention in detail.

**The Intervention**

The intervention took place virtually utilizing the Zoom meeting platform and included one virtual meeting session per week for three weeks which totaled three sessions. All four participants attended all three virtual meeting sessions. The first session lasted 90 minutes while subsequent sessions lasted 60 minutes. The researcher utilized a combination of lecture and discussion in each virtual meeting session. After
the first and second sessions, the participants completed the Session Feedback Survey that measured their level of engagement, how useful they found the content of the sessions, and how they could apply what they learned in the session to their future college counseling practices. The participants also used the Session Feedback Survey to provide the researcher with topics they wanted to see addressed in the second and third virtual meeting sessions.

At the conclusion of the intervention, the participants completed the College Counseling Knowledge Instrument that measured their knowledge of college undermatching as well as their knowledge of how engagement with school counselors influence students’ college-going behaviors. In addition, the participants completed the Professional Learning Experience Survey which sought to measure their experiences in the intervention. Furthermore, three of the four pre-service counselors participated in the 60-minute post-intervention focus group.

**Virtual Meeting Sessions.** Once participant consent was complete, virtual meeting sessions took place once a week for a three-week time-period from March through April 2020. The first session lasted 90 minutes while sessions two and three lasted 60 minutes. The researcher utilized a combination of lecture and discussion in each virtual meeting session. After the first and second sessions, the participants completed the Session Feedback Survey that measured their level of engagement, how useful they found the content of the sessions, and how they could apply what they learned in the session to their future college counseling practices. The participants also shared in the survey the content they wanted to see addressed in sessions two and three. Regarding context, the environment in which a program takes place (Dusenbury et al., 2003),
research suggests delivering professional learning in an online environment is an essential component to effective professional learning because it allows individuals to participate within their own environment (Boud & Hager, 2012; Desimone & Garet, 2015; Quick et al., 2009). The pre-service counselors participated in the intervention in environments convenient and available to them. The meetings were held via the online meeting platform, Zoom, in which the participants received a link to each virtual meeting. Each meeting addressed aspects of college undermatching and college counseling and pre-service school counselors shared their experiences in their internships.

During session one (see Appendix F), participants introduced themselves, shared the institution in which they were enrolled, as well as the school setting of their internship (i.e. rural, suburban, urban) and grade level (i.e. elementary, middle, high). The participants were given the option of to use a pseudonym to maintain anonymity, but they all chose to use their names. The researcher shared the definition of college undermatching and the contributing factors with the pre-service counselors as well as the answers to the College Counseling Knowledge Instrument. Also, the participants shared their college counseling experiences in their field studies and how their identities as school counselors affect their work in college counseling.

The researcher asked guided questions during the first session such as “How does your identity affect the decisions you make around college counseling?” Furthermore, participants completed the Social Identity Wheel and Personal Identity Wheel activities during the first session (see Appendix G). These activities allowed participants to get to know each other as well as encouraged participants to acknowledge the social and personal identities that are most valuable to them. This activity was important to the
research study because personal and social identities of high school students may influence how they view and navigate the college admission process and school counselors must recognize that these identities may require different approaches to postsecondary education planning (American Association of University Women, n.d.). The participants then shared their perspectives of how the activities connected to college counseling.

At the start of session two, participants shared what they found helpful from the previous session. The researcher then addressed the topics and issues the participants expressed they would like to see addressed in session two. The participants suggested the topics for session two when they completed the Session Feedback Survey after session one. For example, one participant asked for best practices to engage students in the college application process when students may be reluctant while another participant requested to talk about how implicit bias may contribute to college undermatching. Research indicates that school counselors possess the social capital to help students of color navigate the college application process (Stanton-Salazar, 1997) so the researcher broached this topic by sharing Stanton-Salazar’s (1997) school-based social capital conceptual framework and how it is applicable to college counseling. In addition, the researcher shared Stanton-Salazar’s (2011) concept of institutional agents and asked the participants how this model plays out in reality for students and counselors in schools. The participants discussed the barriers and challenges to Stanton-Salazar’s (1997) framework and they also shared how they can utilize their school counseling identity to support and advocate for students during the college admission process.
In the third and final session, the researcher shared with participants how to implement the content and strategies discussed in the previous two sessions. The researcher shared the importance of collaborating with others when educating students about the college admission process. Working with fellow school counselors, teachers, principals, and other administrators helps to cultivate a college-going culture within schools. Bryan and colleagues (2017) note the importance of collaboration among educators by saying, “staff members purposefully build a network of supports so that information, resources, and expectations are exchanged—and exchanged through deep and intense interactions around college planning” (p. 96). To facilitate collaboration, the researcher shared how school counselors can work with their colleagues to implement college activities such as College Decision Day to celebrate students’ college aspirations. The researcher also provided the participants with the spring 2020 decision day toolkit provided by the Reach Higher initiative and the Common Application. In addition to collaboration and activities, the researcher discussed ways to engage parents and families in the college process. The participants learned to be mindful of families’ schedules when organizing events because not all families/parents work traditional hours. The researcher also encouraged the participants to create college information materials in multiple languages. School counselors may work with students whose parents’ primary language is not English, so it is essential to ensure families have access to college resources in their native tongue.

Lastly, in the final session, the researcher shared several websites and online resources the participants can access to help high-achieving students from low-income backgrounds better understand the college application process. For example, the
researcher shared information about application types and deadlines (e.g. early action, early decision, regular decision, rolling admission), how students can access application fee waivers if they experience financial hardship, the importance of filing the FAFSA, and how to connect with college admission professionals. The researcher also shared information about standardized testing, including how to research postsecondary institutions who have test-optional admission policies, as well as additional college costs such as the enrollment deposit fee, class supplies, and dorm necessities.

**Post-Intervention Data Collection**

Post-intervention, the participants completed the Professional Learning Experience Survey. This survey sought to examine how participants viewed the primary purpose of the intervention, the usefulness of the intervention, the extent to which the intervention met the participants’ needs, the likelihood the participants would apply what was learned in the intervention, how the intervention compared to other professional learning experiences, and the likelihood the pre-service counselors would take part in another virtual professional learning community. In addition, the participants completed the College Counseling Knowledge Instrument at the conclusion of the intervention which gauged how their college counseling knowledge expanded because of the intervention. To further assess the effectiveness of the intervention, the researcher conducted a 60-minute post-intervention focus group with the pre-service counselors to examine their experiences in the intervention, how their college counseling and college undermatching knowledge changed as a result of the intervention as well as how their perception of their role in helping students navigate the college application process changed as a result of participating in the virtual professional learning community. The
participants chose not to use pseudonyms for the focus group, so the researcher created pseudonyms for each participant to maintain confidentiality. Three of the four pre-service counselors participated in the post-intervention focus group.

**Discussion of Results**

The findings of the intervention address the process evaluation and outcome evaluation research questions.

**Process Evaluation Questions**

RQ1: How does the intervention provide pre-service school counselors with strategies to enhance their knowledge of college counseling and college undermatching?

RQ2: What is the level of fidelity achieved in the virtual professional learning community?

RQ3: How do pre-service school counselors describe their experience participating in the virtual professional learning community?

**Enhance College Counseling and College Undermatching Knowledge.** The researcher sought to understand how the intervention provided participants with strategies to enhance their knowledge of college counseling and college undermatching. To address the first research question, the researcher utilized descriptive statistics to analyze data from the Session Feedback Survey. The researcher created the five-item survey to examine how the information covered in the virtual meeting session may enhance the pre-service counselors’ college counseling practices, and determine the content the participants wanted to see addressed in subsequent sessions. The Likert-type and open-ended question survey was distributed to the participants at the conclusion of the first and
second virtual meeting sessions. The first research question is answered by the following Session Feedback Survey item:

Please explain how what was covered in today’s session can be applied to your future college counseling practices. If you do not feel any information from today’s session can be applied to your future college counseling practices, please explain why.

Ultimately, the participants identified the identity wheel activity as well as learning about social capital and institutional agents as enhancements to their college counseling and college undermatching knowledge. Depicted in Table 5.1, the pre-service counselors shared their thoughts after the first session.

**Table 5.1**

*How Information Can be Applied to College Counseling Practices Session 1*

<table>
<thead>
<tr>
<th>Participant Responses</th>
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</tr>
</thead>
<tbody>
<tr>
<td>“Not to mention being able to apply the wheel with students to better understand their experiences will be helpful in the counseling environment, just as it can be helpful in identifying your own biases and privileges.”</td>
<td></td>
</tr>
<tr>
<td>“I could use the identity wheel activity with students.”</td>
<td></td>
</tr>
<tr>
<td>“As a future elementary school counselor, I appreciated the discussion of early intervention regarding college awareness. I will make this a priority in my classroom lessons.”</td>
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</tbody>
</table>

Two of the pre-service counselors specifically cited the identity wheel activities as resources they could use in their future college counseling plans. For example, the Social
Identity Wheel outlines identities that “influence the experiences we have as members of any particular group” (American Association of University Women, n.d., p. 32). Social identities such as socioeconomic status may influence the education that individuals receive as well as the careers individuals may land. In addition, one participant, who is transitioning to an elementary school counselor referenced the discussion of early college awareness by saying, “As a future elementary school counselor, I appreciated the discussion of early intervention regarding college awareness. I will make this a priority in my classroom lessons.” Research suggests “having early college plans substantially increases the likelihood of taking a college preparatory curriculum and enrolling in college” (McClafferty Jarsky, McDonough, & Nunez, 2009, p. 358). As depicted in Table 5.2, the pre-service counselors shared their thoughts after the second virtual meeting session on how they could apply what was learned to their college counseling practices.

Table 5.2

How Information Can be Applied to College Counseling Practices Session 2

| Participant Responses |  |
Please explain how what was covered in today’s session can be applied to your future college counseling practices. If you do not feel any information from today’s session can be applied to your future college counseling practices, please explain why.

“The idea of institutional agent and what kind of institutional agent I will be resonated with me and it’s an idea that I’ll keep in mind as I start my career and I will try my best to consider that idea whenever I am advising students.”

“Now that I have a better understanding of what social capital is and I am able to identify various benefits associated with having social capital, I feel better prepared to meet the needs of all students when it comes to college counseling.”

“A main part of our role as school counselors is to share social capital with our students. We should be mindful of the resources available to students when disseminating information and following up as to whether they’ve used that information to take action.”

After the second virtual meeting session, some of the pre-service counselors specifically referenced social capital and institutional agents as concepts they could incorporate in their future college counseling practices. Social capital is information or resources an individual possesses that may be useful to others (Bourdieu, 1986; Coleman, 1988). Using the concept of social capital, Stanton-Salazar’s (1997) school-based social capital framework suggests that individuals within schools, like school counselors, possess the knowledge and information necessary to support students’ postsecondary aspirations. Stanton-Salazar (2011) specifically refers to these individuals as institutional agents. Institutional agents use their position as authoritative figures to share highly valuable
information (Stanton-Salazar, 2011) and can utilize their networks to ensure the success of students of color (Stanton-Salazar, 1997).

**Level of Fidelity.** The second research question examined the level of fidelity achieved in the intervention. This question was answered by participant engagement and the data source for fidelity is the Session Feedback Survey. The researcher intended to measure reach for the intervention as well, but the COVID-19 pandemic made it virtually impossible to do so. The intervention was to take place once a month for three months so that participants could implement what was learned with students during their field experiences. Unfortunately, the pandemic fundamentally changed the approach to this intervention. For example, the pandemic prevented the researcher from implementing the intervention over a longer period because many postsecondary institutions suspended in-person classes during the spring semester. In addition, most secondary schools closed for the rest of the school year leaving participants unable to complete their internships in-person.

The intervention design consisted of three virtual meeting sessions and all four participants attended all three virtual meeting sessions which garnered a 100% attendance rate. A statement on the Session Feedback Survey asked pre-service counselors to explain how they felt engaged in the first and second meeting sessions. As depicted by Table 5.3, participants shared their responses to that statement.

**Table 5.3**

*How Participants Felt Engaged in Sessions One and Two*

<table>
<thead>
<tr>
<th></th>
<th>Session One</th>
<th>Session Two</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>“It was a small group and everyone was able to share their comments and</td>
<td>“I like that again we were [able to] share our thoughts and comments, and it</td>
</tr>
<tr>
<td></td>
<td>experiences. Everyone listened to each</td>
<td>wasn’t full on lecture format.”</td>
</tr>
<tr>
<td>Session One</td>
<td>Session Two</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>“I felt fully engaged in today’s session not only because it is a topic that</td>
<td>“I felt engaged in today’s session not only because I was able to share my</td>
<td></td>
</tr>
<tr>
<td>is of great interest to me but also because the session involved participation</td>
<td>understanding of social capital and what it may look like in a school setting</td>
<td></td>
</tr>
<tr>
<td>and reflection from not only the moderator but the participants as well.”</td>
<td>but also because I did a great deal of self-reflection on my past experiences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and practices with college counseling as well as what I would like future</td>
<td></td>
</tr>
<tr>
<td></td>
<td>experiences and practices to be like.”</td>
<td></td>
</tr>
<tr>
<td>“I was most engaged in getting to discuss how we saw college undermatching</td>
<td>“I was less engaged than last time in the presentation portion since I</td>
<td></td>
</tr>
<tr>
<td>in practice at our internship sites.”</td>
<td>already know about social capital and have spent considerable time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>discussing it in my courses. I was most engaged in the discussion in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>later half of the session where we were able to connect the idea of social</td>
<td></td>
</tr>
<tr>
<td></td>
<td>capital to the real world.”</td>
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</tbody>
</table>

Generally, the participants felt engaged during the intervention. The participants noted that the size of the group allowed for active discussion and provided space where everyone could share their comments and thoughts. Participants also acknowledged that the intervention facilitated reflection on the content shared during the virtual meeting sessions. Conversely, one pre-service counselor indicated they were less engaged in the second session that discussed social capital because they were already familiar with the concept. However, they noted that they were most engaged later in the session when the participants shared how social capital is applicable in real world situations.

**Experience in the Intervention.** The third research question addressed the participants’ overall experience taking part in the intervention. Data for this question was
collected from both the focus group and the Professional Learning Experience Survey. The researcher defined overall experience by what the participants enjoyed the most about the experience as well as what they found challenging. Additionally, the researcher defined overall experience by participants’ responses about the usefulness of the intervention, the extent to which the intervention met their needs, the likelihood they would apply what they learned, how the intervention compared to other professional learning experiences, and the likelihood they would participate in a future virtual professional learning community. Participants’ overall experiences were addressed by the following three focus group questions:

1. Please share your thoughts about participating in a virtual professional learning community.
2. What did you enjoy most?
3. What did you find challenging?

Table 5.4 identifies the themes that frequently appeared from the focus group discussion: opportunity, connection with others, and learning. These themes specifically point to the pre-service counselors’ experiences in the intervention.

**Table 5.4**

*Participants’ Overall Experiences in the Intervention*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Participant Responses</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>
When asked to share their initial thoughts on participating in the intervention, one theme that appeared frequently was *opportunity*. The participants expressed the virtual professional learning community provided a space to discuss *college undermatching* and college admission counseling, especially during the COVID-19 pandemic. Frank explained, “So this is just an opportunity to learn a big topic that I don't think I would

| Opportunity | “I think it gives more opportunities to attend such events.”  
|            | “I think that it does provide more opportunity.”  
|            | “So this is just an opportunity to learn a big topic that I don't think I would have gotten up until this point now.”  
|            | “It was particularly relevant right now when we're not able to be places in person.”  
| Connection with Others | “So it's really valuable for me to hear from other people in slightly different situations.”  
|            | “The virtual community is a very good way to do something like this with people from different locations.”  
|            | “But if you're doing something that you want to span across different groups or to bring different school counselors together, I think this is a good way to do it.”  
| Learning | “Just the fact that we got to learn from you, Crystal, and learn about college admissions counseling.”  
|            | “This just increased my pot of knowledge in this area because it was beneficial and just helped me develop more and learn more than I'd known before.”  
|            | “So I believe I now have a greater knowledge of what that looks like and what I can do as a school counselor and resources.”  |
have gotten up until this point now.” Very few school counseling graduate programs require college admission counseling training (Bryan et al., 2011; Savitz-Romer, 2012a; West, 2020). Lisa shared the intervention brought a variety of individuals together,

But if you're doing something that you want to span across different groups or to bring different school counselors together, I think this is a good way to do it, and it was particularly relevant right now when we're not able to be places in person.

Booth and Kellog (2015) assert online communities offer support among colleagues. In addition to bringing people together, the intervention offered participants the opportunity to interact in a more comprehensive manner than traditional online learning environments. Frank reiterated this point by saying,

I actually prefer this style as opposed to just an online class where you're posting discussion boards and then responding to people. So I like this platform because there's more actual human interaction than just posting on a discussion board.

Furthermore, research suggests that virtual professional learning provides access to timely information (Blitz, 2013). Catherine emphasized this notion and said,

I don't feel like we get a lot of counseling or, as school counselors, college counseling for our students. So I felt this professional development gave me more information that I could use in my practice not only as a counseling intern but when I graduate and then in the school counseling field.

Lisa agreed,

We had a college and career course, but it was over the summer. It was two weeks long, and the big focus was on things like creating a college-going culture or helping students find what career's a good fit for them, but not so much about
the specifics of how do I help students apply to college and some of the basic
things that we went over about application fees, all the kind of logistics. That was
not covered at all. It was much more general. So this was really filling a gap that
I didn't see my -- like others didn't either.

Because pre-service counselors receive little to no college admission counseling training
(West, 2020), the intervention was important to meet that need.

The participants’ responses to the Professional Learning Experience Survey also
supported the notion that the intervention provided opportunity. The 6-item Professional
Learning Experience Survey was adapted from the National Staff Development Council
Professional Development Guide (Haslam, 2010) and was used to evaluate participants’
views on their professional learning experience. For example, the first item on the
Professional Learning Experience Survey asked participants to best describe the primary
purpose of the virtual learning community. Participants could choose all responses that
applied from the following five options:

1. To communicate new ideas for me to use in my college counseling practices.
2. To provide an opportunity for me to learn from other high school counselors.
3. To help me understand college undermatching.
4. Not clear.
5. Other. Please explain.

All four intervention participants indicated “To communicate new ideas for me to use in
my college counseling practices.” All participants also indicated the purpose of the
intervention was “To help me understand college undermatching.” Two of the
participants said the purpose of the intervention was “To provide an opportunity for me to
learn from other high school counselors.” One participant chose the fifth option to the question and explained, “To share my experiences and learn from the experiences of others be it personal or professional.” However, during the focus group, one participant expressed regret over a missed opportunity. At the conclusion of the first two virtual meeting sessions, the researcher sent participants the Session Feedback Survey to evaluate their experiences in the intervention thus far and to share what they would like to discuss in the subsequent sessions. Lisa explained her missed opportunity,

And then something that I was thinking about for me individually was those whatever they were, reflection surveys that you sent out between the sessions. I wish I had been more mindful to -- because there was a question on there about what are questions that you have, or things you want to talk about in the next section. On the first one, I don't think I answered that question, and on the second one, I think I was kind of pretty general. But I wish I had put a little bit more mindfulness into that. I was happy with the things we discussed, but I kind of missed out on an opportunity to say specifically things I was interested in.

Another theme that emerged from the participants’ experiences in the intervention was connection with others. Literature posits that professional learning communities are meant to create a collaborative space among others to learn and share ideas (Booth, 2012). The participants in the intervention expressed similar sentiments about engagement. Catherine explained if the intervention were held on a campus it may have been difficult for participants to meet in one place. Instead, the virtual professional learning community provided pre-service counselors the chance to engage with their peers, despite not doing so in-person. Catherine emphasized this idea,
So if this event was held at a university… it would limit certain people's abilities
to get up there and participate in such a professional development. But being in a
virtual space, it allows people from all different locations. And so it afforded me
that opportunity.

Lisa was enrolled at a different institution than the other pre-service counselors, so she
found the virtual professional learning community beneficial because it allowed her to
connect with colleagues from another institution. Lisa noted,

I'm from a different university than the other people, so for me, it was kind of neat
to hear about how their experiences were compared to mine because I'm so used
to -- usually, the only people I talk to are other school counselors in my program
or the two or three supervisors I've had. So it's really valuable for me to hear
from other people in slightly different situations.

Frank spoke to this point, “I think that it does provide more opportunity, and also just
being able to talk to each other and see each other.” Desimone (2009) notes that the final
core element of effective PL is collective participation which is intentional collaboration
among educators to create a learning community. Connection among the intervention
participants demonstrates this element.

The final theme, *learning*, frequently appeared when participants discussed their
experiences in the virtual professional learning community. The three participants who
took part in the focus group, often referred to the final virtual meeting session where the
researcher shared a presentation that included links to resources and websites that
counselors and students can use in the college admission process. One of those resources
included a scholarship program specifically for high-achieving students from low-income households. Lisa found this information helpful and explained,

Something that I found really, really helpful was in the third session, we went through a PowerPoint that went over things to consider when applying for college, a lot about the different costs, enrollment deposits, application fees, and all of that. And while a lot of that is kind of basic information that I knew, I'd never seen that all put together in one comprehensive place. And that tool right there, I think, is just so -- that's key as a counselor to have a comprehensive, these are all the things that you can consider.

Savitz-Romer (2012b) notes in a research study she conducted with urban school counselors that they wanted more academic training in college admission counseling. Frank added it was helpful for him to learn from the researcher and he reiterated the fact that many graduate school counseling programs do not include a course on college admission counseling in their coursework. Frank stated, “Just the fact that we got to learn from you, Crystal, and learn about college admissions counseling. We don't have a course there on that at our school, and it's not really covered in many of the courses there.” To Frank and Lisa’s points, Catherine added,

So we did have a career class, and again, I feel like the career class was more focused on fields outside of the school counseling field. And some classes in our program I feel like are geared more towards clinical mental health. So to have a professional development that talks specifically about the field of school counseling was extremely helpful, especially for myself as an intern being first
semester in high school. I feel like it's benefitted me in how I'm going to pursue how I speak to students not only now but in the future.

The participants cited an overall positive experience in the virtual professional learning community. However, the participants shared some challenges related to the intervention including size of the community, comfort level participating in the intervention, and the schedule of the intervention. Evidence from the focus group indicated that the group was too small and created some discomfort for participants. For instance, Catherine questioned her confidence in the community,

With it being video on, sometimes I felt like there was some pressure for me to have an answer. And that's probably internal, because a lot of that pressure that I feel is internal. But sometimes I don't feel too confident in answers and maybe need to hear others' answers before responding. So sometimes it was a little challenging for me, I guess, to be so vulnerable. But it also was an experience that I think strengthens my confidence a little bit, I guess.

Frank reiterated Catherine’s feelings about the level of comfort in the virtual space,

And I do understand you don't know if everyone's looking at you on camera. You don't know what you look like on camera to everyone else. So there is some self-conscious things, too, just having yourself on camera and answering a question, and then everyone's looking at you and you can't tell what they're thinking or saying or anything.

These findings are consistent with Blitz (2013) who notes that individuals tend to be less motivated to engage in dialogue in a virtual setting than face-to-face. McConnell and colleagues (2013), however, saw success with small sample sizes of educators who
participated in professional learning communities. The authors posited that, despite the small group sizes, teachers quickly “adapted to a new learning environment” (McConnell et al., 2013, p. 275). Lisa offered a perspective about the advantage of the group size and affirmed Catherine and Franks thoughts,

There are big advantages to having a really small group like this, in that you get time to ask your own questions and kind of get to know the people, but it does remove any kind of anonymity, and there's only a few people. So with a larger group, you might get more perspective. So it goes either way. I think the concerns you guys brought up were because it's a really small group.

Regarding timing of the intervention, the researcher offered the virtual professional learning community during the spring semester so it would align with pre-service counselors currently in their internships. However, Lisa challenged that logic and explained,

It would be really neat if you could align it so that people had this right before or as they were going -- or just prior to going into their high school internship or working at a high school, whatever it might be. I think that would be really valuable.

Also, Lisa was completing her internship at a high school before school closures but aspires to be an elementary school counselor. She explained why timing mattered,

I think kind of the biggest challenge for me was the timing in alignment with what I'm doing in my school counseling trajectory. So technically, I am in a high school right now, or this would be very relevant. However, I'm not actually there.
So, for example, if I were someone who maybe I had my high school internship a year ago and I was in an elementary school now, the timing is a bit off.

In addition, the participants expressed their opinions on the usefulness of the virtual professional learning community. This was measured in the Professional Learning Experience Survey. The survey specifically asked participants to choose one statement that best describes the usefulness of the virtual professional learning community. The participants chose from the following six statements:

1. It was a good start.
2. It was a good start, but I have many questions.
3. It was a good start, and I look forward to trying these ideas in my classroom.
4. It provided almost everything I need to implement the ideas in my classroom.
5. It provided everything I need to implement the ideas in my classroom.

One participant indicated the virtual professional learning community was a good start while two participants indicated the virtual professional learning community was a good start and they look forward to trying the ideas in their classroom. A final participant indicated the intervention provided everything they needed to implement ideas in their classroom. The Professional Learning Experience Survey also asked to what extent the virtual professional learning community met the professional learning needs of the participants. Participants chose one of the following four responses:

1. It addressed my professional needs completely.
2. It addressed some of my professional learning needs.
3. It did not address my professional learning needs.
4. The professional development did not help much because I was already familiar with the topic.

One participant indicated that the intervention completely addressed their professional learning needs while the remaining three participants noted that the intervention addressed some of their professional learning needs. Research indicates for professional learning communities to be successful, ongoing engagement and support is necessary (Quick et al., 2009; Teague & Anfara, 2012; McConnell et al., 2013). The researcher’s intervention lasted three weeks which may not have been enough time to fully meet the participants’ professional learning needs.

In addition, one question from the Professional Learning Experience Survey asked participants about the likelihood they will apply what they learned from the intervention to their college counseling practices. The participants chose one response from the following six statements:

1. I have already tried this in my college counseling practices.
2. I have already tried this in my college counseling practices with success.
3. I look forward to trying this in my college counseling practices in the next few weeks.
4. I have already tried this in my college counseling practices, but it was not successful.
5. I would like to try this, but I do not have resources or materials I need.
6. I do not think this will work with my students.

All four pre-service counselors noted that they look forward to applying what they learned in the intervention to their future college counseling practices. Bridgeland and
Bruce (2011) acknowledge that 88% of the school counselors in their study support counselor training to help students identify the skills they need to pursue the job they want.

Furthermore, participants were asked to choose one of the following five statements from the Professional Learning Experience Survey that best described how the intervention compared to other professional development opportunities in which they may have participated in the last six months:

1. This professional development was more useful than other professional development I have participated in.
2. This professional development was about the same as other professional development I have participated in.
3. This professional development was less useful than other professional development I have participated in.
4. I do not have an opinion.
5. I do not have an opinion because I have not participated in other professional development in the last six months.

Three of the pre-service counselors indicated that the intervention was about the same as other professional development they have participated in while one participant noted that the intervention was more useful than other professional development in which they have participated. Research shows that it is necessary to evaluate professional development experiences to gauge the effect on student learning (Haslam, 2010). Haslam (2010) further notes that when possible, surveys to evaluate a professional development experience should be administered 3-6 weeks after the event to allow time for
participants to reflect on what was learned and how it was beneficial. Unfortunately, due to limited time, the researcher could not wait the recommended time to distribute the Professional Learning Experience Survey. The survey was distributed to the participants the last day of the intervention.

The final Professional Learning Experience Survey question addressed the likelihood the pre-service counselors would participate in virtual professional learning community in the future. Participants had the option to choose one item from the 5-point Likert scale: (1) Very unlikely, (2) Unlikely, (3) Neither likely nor unlikely, (4) Likely, and (5) Very likely. Depicted by Table 5.5, on average, the participants agreed they are likely to take part in a future virtual professional learning community (4.50). Battersby and Verdi (2015) suggest that an individual who participates in a professional learning community must be willing to work toward improvement. In addition, the ASCA (2019a) School Counselor Professional Standards and Competencies implore school counselors to “stay current with school counseling research and best practices” (p. 3) and develop a yearly professional development plan to promote professional growth.

**Table 5.5**

*Likelihood of Participating in a Future Virtual PLC*

<table>
<thead>
<tr>
<th></th>
<th>$n$</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
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</thead>
<tbody>
<tr>
<td>Which of the following statements best describes your likelihood to participate in a future virtual professional learning community</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4.50</td>
<td>0.25</td>
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The process evaluation data revealed that participants appreciated some of the intervention enhancements, particularly the identity wheel exercises, expressed positive feelings about the intervention, overall, and offered a few suggestions around possible challenges or opportunities for improving this work in the future. Regarding enhancements, the pre-service counselors noted that activities like the identity wheel, discussion with peers, and more awareness of college counseling resources provided them with additional college counseling and college undermatching strategies. In addition, all four pre-service counselors participated in the intervention which is indicative of their interest in taking advantage of a professional learning opportunity. Furthermore, the participants noted an overall positive experience in the intervention. They shared that the intervention provided enjoyment of coming together with peers to learn, an opportunity to participate in professional learning that may not have been offered otherwise, and the change to use what they learned in their future work. Given these findings, the intervention was implemented with fidelity. Despite the small sample size, the participants were fully engaged throughout the intervention and the researcher provided resources and information about college counseling and college undermatching that some of the pre-service counselors were unfamiliar with prior to the intervention. The following sections discuss the outcomes resulting from the intervention.

**Outcome Evaluation Questions**

The outcome evaluation focused on the proximal outcomes of the intervention. The intervention participants noted that although their perceptions of their role in helping students navigate the college admission process had not changed because of the intervention, they acknowledged that they have a greater understanding of college
undermatching and will be more intentional about informing students of color of their college options and helping them create postsecondary education plans. The discussion of the results of the intervention outcomes is guided by the following research questions:

RQ4: In what ways does participation in the intervention change pre-service school counselors' college counseling knowledge?

RQ5: In what ways does participation in the intervention change pre-service school counselors' perceptions of their role in supporting students of color in the college-going process?

**Change in College Counseling Knowledge and Perception of Role.** The fourth research question explored how pre-service counselors’ college counseling knowledge may have changed because of their participation in the virtual professional learning community. To address this research question, the researcher analyzed the qualitative data from the post-intervention focus group and identified emergent themes. Miles and colleagues (2014) define coding as a way to “retrieve and categorize similar data chunks so the researcher can quickly find, pull out and cluster the segments relating to a particular research question, hypothesis, construct, or theme” (p. 72). The researcher also collected data from the College Counseling Knowledge Instrument to answer the fourth research question. The researcher analyzed data from the following focus group questions:

1. As a result of your participation, how do you think your college counseling knowledge has changed?

2. How has your knowledge about college undermatching changed?
3. Moving forward, how will you help marginalized students of color find the right college match?

Table 5.6 outlines the primary themes that most often appeared in participants’ responses: awareness, postsecondary plans, options, and social capital.

**Table 5.6**

*Expanding College Counseling and College Undermatching Knowledge*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Participant Responses</th>
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<tr>
<td>Awareness</td>
<td>“I did not know the term before but was familiar with the concept.”</td>
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<tr>
<td></td>
<td>“I didn't have the term for it, but I was very aware that both forms of the concept of college undermatching existed and were real.”</td>
</tr>
<tr>
<td></td>
<td>“I knew of the idea or maybe the concept of high-achieving, low-socioeconomic students going to less selective colleges, but didn't really know there was a term for it.”</td>
</tr>
<tr>
<td>Postsecondary Plans</td>
<td>“I know we talked one session about having a Google form where people submit information about what their plans are.”</td>
</tr>
<tr>
<td></td>
<td>“As a school counselor, my goal is to be able to ask every student what their postsecondary plans are.”</td>
</tr>
<tr>
<td></td>
<td>“Following up with students individually so that you're kind of -- and also tracking where students are at in their plan.”</td>
</tr>
<tr>
<td>Options</td>
<td>“So talking about the many different options that are available to students.”</td>
</tr>
<tr>
<td></td>
<td>“It would be really beneficial if I created or if something existed where we could convince students that they have options.”</td>
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<tr>
<td></td>
<td>“Spreading information broadly about different postsecondary options.”</td>
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When asked how participation in the intervention enhanced their college counseling and *college undermatching* knowledge, one theme that frequently appeared was *awareness*. All focus group participants indicated they understood the concept of *college undermatching*, but they did not realize there was a term for it. For example, Catherine explained,

Prior to starting this professional development a few weeks ago, I knew of the idea or maybe the concept of high-achieving, low-socioeconomic students going to less selective colleges, but didn't really know there was a term for it. So I believe I now have a greater knowledge of what that looks like and what I can do as a school counselor and resources.

Lisa expressed a similar sentiment and further explained two ways in which she understood the concept of *college undermatching* by stating,

I did not know the term before but was familiar with the concept. And I think one thing that changed in my knowledge -- so there are two categories. There are students who are going to college who are going to a less selective or competitive college than they may be capable of. That's college undermatching. And then there's also students who -- let's say they aren't going to college when maybe they
would be a good fit for college. And they're going to a two-year college when maybe they have the background for a four-year college. So I had never really thought of those two things as being rooted in the same issue.

Like Catherine and Lisa, Frank added, “I also was familiar with the concept. I didn't have the term for it, but I was very aware that both forms of the concept of college undermatching existed and were real.” Research defines college undermatching as a phenomenon that occurs when high-achieving students from low-income households apply to or enroll in less selective postsecondary institutions despite meeting the academic criteria (Hoxby & Avery, 2013; Bastedo & Flaster, 2014; Lowry, 2017).

Ultimately, the participants were aware of the concept of college undermatching, despite not knowing the term prior to the intervention. In addition, the participants acknowledged that the intervention provided them with a greater knowledge of college undermatching and how to recognize it. For example, Frank shared,

> And I think through this professional development, I guess there are more resources. There are more that I know of now, and there are things that you can do more to do about it. But I think it's helped me just to help something that I know from now on to just keep on my radar and just try to look out for it and think about, oh, is this happening to this student? Or that whole -- so just something to look out for moving on in the future, like is this happening to this student? Or is this student really doing what they're fully capable of?

Another theme that emerged from the focus group was postsecondary plans. The participants underscored the importance of communicating with students about their postsecondary education plans. Specifically, Catherine suggested it is necessary to
inquire with students about their college plans, especially students of color by declaring, “My goal is to be able to ask every student what their postsecondary plans are, and for students of color specifically, I would want to make sure I keep on top of what their postsecondary plans are.” Catherine further explained how she will support all students in their postsecondary plans and be more cognizant about the plans of students of color given they tend to undermatch at higher rates than their White peers.

Lisa suggested it is necessary for students to have a plan A and plan B and one way to do so could be through tracking the students individually. She emphasized this point by saying, “I know we talked one session about having a Google form where people submit information about what their plans are.” Lisa’s suggestion of using a method of tracking students’ plans provides counselors with student data so they can check-in with them when necessary and help foster their postsecondary goals. The ASCA (2019a) School Counselor Professional Standards and Competencies outlines a list of behaviors school counselors should display in their school counseling programs. Planning and assessment is one of the behaviors and specifically states school counselors should “develop annual student outcome goals based on student data” and “develop and implement action plans aligned with annual student outcome goals and student data” (ASCA, 2019a, p. 2).

During the focus group discussion, another theme that emerged was options. The participants discussed several times the importance of informing students about their options when it comes to pursuing postsecondary education. Helping students identify options is essential in the college admission process because research shows students who attend more selective postsecondary institutions are “more likely to graduate and
experience greater success in the labor market, particularly if they come from disadvantaged backgrounds” (Belasco & Trivette, 2015, p. 234). Therefore, it is crucial for school counselors to share information about a range of postsecondary institution types with their students, particularly those who may fit the profile to college undermatch. Regarding options Lisa explained,

So talking about the many different options that are available to students so that they realize, I do need a plan, and my plan might be any one of these things. I need to figure out what fits for me.

While discussing college options, Frank shared his thoughts about students knowing their college options. He specifically refers to the community college choice. Frank stressed,

I know so many students that they just go to the community college. It's the simple answer. It doesn't require much thought. It's, I graduate and I go to the local community college, and then we'll go from there once we're at the community college. And that's great, but I feel like that's just such a simple plan for so many students, and it doesn't take a lot of effort to explore anything and think about other opportunities. And that's where I think a lot of -- at least where I've been, a lot of the undermatching happens, is because students will be like, oh, I'm going to go to the community college. And people just accept that because they're like, oh, okay, there. There's your plan, you're going to go to the community college, when they have the grades and the achievements to go somewhere of higher prestige and more selection than the community college.
Regarding the community college pathway, research indicates that although these institutions are essential to society, retention issues as well as persistence and completion issues most often affect racial groups such as African Americans (Lowry, 2017). Catherine suggested utilizing classroom and small-group sessions to educate students about their college options. She noted, “So having those lessons to educate students about these, I guess, higher level, higher prestige schools and just general information about college and postsecondary plans and everything you need to think about, because there's a lot to think about.”

The final prominent theme that emerged to respond to the fourth research question is *social capital*. As previously noted, social capital is information, knowledge, or resources that individuals in positions of authority or power possess that others may not have access to (Bourdieu, 1986). Those individuals who have access to social capital have the power to share it with others. For example, school counselors often have social capital regarding the college application process and sharing this capital with students may make the college application process more manageable, especially for marginalized student populations (Stanton-Salazar, 1997). During the focus group, Catherine acknowledged “And so for me to have that social capital in the school and be able to identify other stakeholders in the school who can assist with college counseling.” Access to college preparation materials is a contributing factor to *college undermatching* (Belasco & Trivette, 2015; Cox, 2016) and Frank recognized this factor when he shared his thoughts about social capital in his work as a future practicing school counselor. Frank explained, “I mean, I also understood that yes, as school counselors, we're supposed to help students learn about different opportunities, provide them with
information, educate them on costs and locations and majors and grants and scholarships they can apply for.”

Although it was not one of the more prominent themes, it is important to note equity was a topic of discussion amongst the focus group participants. Frank emphasized this point and noted,

The first thing is to just remember that everyone's story is different. Everyone's background is different. Everyone's financial situation and family responsibilities are different. And just be mindful in terms of what you recommend to students and what you suggest.

Lisa noted previously that creating a tracking system could be an effective way to monitor students’ college plans. Lisa proposed doing so “can create a little more equity.” Chen-Hayes (2007) notes it is essential for school counselors to use equity-based interventions to close student achievement and opportunity gaps.

During the focus group, the participants noted the helpfulness of the resources and websites the researcher shared that enhanced their college counseling knowledge. Oftentimes, school counseling graduate programs do not require college admission counseling training (Bryan et al., 2011; Savitz-Romer, 2012a) so the intervention may have provided critical information to help fill that need. Frank stated,

I think I learned a lot more about different websites that I didn't know about before and different scholarship and assistantship and more just in the world of financial aid and in the world of things other than just FAFSA. I knew what FAFSA was before this, but I didn't know there were other opportunities, and I
didn't know there was as much out there as there is in terms of scholarships and grants and things like that.

Lisa shared similar thoughts to Frank about how the resources the researcher shared changed her college counseling knowledge. She stated,

So for me, that was really helpful. And I did learn some new things from that as well in addition to, kind of like Frank was saying, just having some additional resources and knowing about organizations that are pulling together resources.

In addition to the resources shared, Catherine acknowledged how her college counseling knowledge changed by referencing social capital. She explained,

I think that's where my knowledge has increased in that self-awareness of, I guess, that power that I hold and that power of knowledge that I hold and others within the school hold in order to help students on their college and career paths.

In addition to the focus group, data about participants’ change in college counseling knowledge was collected from the College Counseling Knowledge Instrument. The five-item College Counseling Knowledge Instrument included open-ended, multiple choice, and true/false statements. Participants completed the instrument before and after the intervention. The following represents the five statements from the data source:

1. Define college undermatching.

2. Students from low-income households who are high-achievers are more likely to perceive the following about college (choose all that apply).
3. High school seniors who engage one-on-one with a school counselor are 6.8 times more likely to complete the Free Application for Federal Student Aid (FAFSA).

4. High school seniors who engage one-on-one with a school counselor are X times more likely to attend college.

5. High school seniors who engage one-on-one with a school counselor are two times more likely to attend a college with a bachelor’s degree program.

Table 5.7 compares how participants defined college undermatching prior to and after the intervention.

**Table 5.7**

*Participants' Definition of College Undermatching Pre and Post-Intervention*

<table>
<thead>
<tr>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
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<tr>
<td>“College undermatching is when students of color and/or other minority students are paired with schools or apply to schools that do not meet their academic rigor.”</td>
<td>“College undermatching is when educators and students pair or recommend colleges (or no college) that do not correlate with a student’s academic performance and achievement.”</td>
</tr>
<tr>
<td>“When postsecondary seeking students aren’t matched with colleges and/or universities that meet their academic ability level.”</td>
<td>“This typically occurs with minority students who apply to or are recommended to apply to colleges and universities that rate below their ability level. This can be due to bias, lack of knowledge about the admission and financing process, or miscommunication between educators and students.”</td>
</tr>
<tr>
<td>“College-seeking students may not be shown or introduced to colleges and/or universities that they are fully capable of succeeding at.”</td>
<td>“When students who are high achievers, but from low socioeconomic backgrounds apply to and enroll in less competitive postsecondary institutions despite meeting the academic criteria for admission to more competitive postsecondary institutions.”</td>
</tr>
</tbody>
</table>
“When school counselors, college counselors or anyone helping a student in the college application process doesn’t recommend or encourage a student to apply to a certain college [or] universities [sic] because of bias or an assumption. This is more common with students of color, low-income students, and minorities.”

“I am not familiar with this term, but would guess that college undermatching refers to instances when a student applies to or attends a college of a quality and rigor below their potential.”

“College undermatching occurs when high-achieving students attend colleges that are less competitive or selective than they are capable of. Undermatching could also look like a student attending a two-year college instead of a four-year college or not attending college at all when they actually would be a good fit for college. This phenomenon typically occurs with low-income or minority students.”

Generally, the participants appeared to have some knowledge of the concept of college undermatching prior to the intervention. For example, the participants referenced words and phrases such as, “rigor,” “paired with,” “academic ability level,” and “students of color” when defining college undermatching. One participant acknowledged their unfamiliarity with the term, but explained what they thought constitutes college undermatching by saying, “I am not familiar with this term, but would guess that college undermatching refers to instances when a student applies to or attends a college of a quality and rigor below their potential.” Post-intervention, the participants identified characteristics of college undermatching such as students’ socioeconomic backgrounds (Bastedo & Jaquette, 2011; Cox, 2016; Pallais, 2015), their academic ability as well as college prestige. The participants frequently used words and phrases, such as “high-achieving,” “low-socioeconomic,” and “minority students” when they defined college undermatching.
undermatching after the intervention. One participant identified a lack of understanding of the college admission process by saying, “This can be due to bias, lack of knowledge about the admission and financing process, or miscommunication between educators and students.” This statement aligns with the contributing factor of access to college preparation information (Belasco & Trivette, 2015; Cox, 2016; Roderick et al., 2011; Woods & Domina, 2014).

The second statement on the College Counseling Knowledge Instrument instructed participants to identify the likely perceptions of college held by high-achieving students from low-income households. The participants were directed to choose all that apply from the following four choices:

1. Liberal arts colleges and universities do not offer math and science majors.
2. Flagship institutions are too focused on athletics and parties.
3. Not enough financial aid is available at the most selective colleges and universities.
4. Attending a liberal arts college will prevent them from attending graduate school later.

All four answers are correct and none of the intervention participants answered correctly prior to the intervention, but post-intervention, all four participants chose the correct answers to the statement when they completed the knowledge instrument. The third item on the College Counseling Knowledge Instrument asked participants to determine whether the following statement was true or false:

High school seniors who engage one-on-one with a school counselor are 6.8 times more likely to complete the Free Application for Federal Student Aid (FAFSA).
The answer is true, and all participants answered this statement correctly both before and after the intervention.

The fourth College Counseling Knowledge Instrument item was multiple choice and instructed participants to determine the correct answer to the following statement:

High school seniors who engage one-on-one with a school counselor are X times more likely to attend college.

The participants had to choose one answer from the following options:

1. 5.6
2. 3.2
3. 7.5
4. 4.2

The correct answer is 3.2 and none of the participants selected the correct answer prior to the intervention. After the intervention, three of the four (75%) pre-service counselors selected the correct answer.

The last item on the College Counseling Knowledge Instrument asked participants to determine whether the following statement is true or false:

High school seniors who engage one-on-one with a school counselor are two times more likely to attend a college with a bachelor’s degree program.

The answer is true and 100% of the participants answered this statement correctly both pre-and post-intervention.

The data that addressed the fourth research question revealed how pre-service counselors’ college counseling knowledge changed because of the intervention. For example, pre-service counselors acknowledged that the intervention created awareness
about *college undermatching* as well as encouraged them to help students of color develop postsecondary plans. In addition, pre-service counselors were able to identify elements of *college undermatching* prior to the intervention and accurately define the concept after the intervention. The preservice counselors also demonstrated a change in their college counseling knowledge by completing the College Counseling Knowledge Instrument before and after the intervention. Except for one of the instrument’s items, all pre-service counselors answered the questions correctly after the intervention.

The final research question addressed how the participants’ perceptions of their role supporting students of color in the college application process changed because of the intervention. To address this question, the researcher collected and analyzed data from the following focus group question:

> As a result of your participation in the virtual professional learning community, how has your perception of your role in helping students navigate the college-going process?

Overall, the participants shared their perspectives of their role as school counselors have not changed. Lisa noted,

> I don't know if there really has been a big change in what I view the role to be. I think for me the change was a lot more in, a little bit, terminology to describe what we're doing, but mostly resources and things to consider when doing so. But I think my view of the role always included sharing information with students that they may not have access to and working towards equity in access to college and different types of college.

Frank agreed with Lisa’s thoughts,
I was thinking along the same lines. I don't think it's necessarily changed. I mean, I also understood that yes, as school counselors, we're supposed to help students learn about different opportunities, provide them with information, educate them on costs and locations and majors and grants and scholarships they can apply for.

Woods and Domina (2014) assert that school counselors play a pivotal role in students’ transition to postsecondary education. The authors also posit that school counselors “can choose the amount and types of college and financial aid information to provide, effectively ‘channeling’ students towards or away from different types of colleges” (Woods & Domina, 2014, p. 4). Frank specifically states that although he does not think his perception of his role has changed, he acknowledges that information such as financial resources are important to share with students. This point is important because having access to college preparation materials such as financial aid information is a contributing factor to college undermatching for students of color. Ultimately, the key finding from these data points is that while school counselors’ perceptions may not have changed, their ability to articulate it with this new language and conception of these ideas improved.

In addition to focus group questions, the researcher asked the participants one final question based on the discussion to that point. The researcher asked the participants to share their advice for other pre-service counselors in similar positions as they make the transition to the school counseling profession. Lisa recommended pre-service counselors gather information and resources early,
My one piece of advice would be to as soon as possible start building up a library of resources, whether those be PowerPoints that you saw in one of your classes or websites you can go to. I don't know. I mean, there's all kinds of things out there, lesson plans, anything like that that you come across, to put it somewhere so you'll have access to it later. I think that's something I realize now, when I could have been doing it for the past two years of grad school and have this all built up already.

ASCA (2019a) recommends school counselors stay current on education trends and best practices. As pre-service counselors, staying current on what is happening in the school counseling profession as well as college admission is critical. Frank also pointed to the importance of recognizing every student has their own journey and the support school counselors provide students about the college application process may work for one student but may not work for another. Frank reiterated this point by saying, “Treat every student as an individual and don't be like, oh, well, when I did this, it worked, because everyone's story and situation is different. So just don't try to group students into a one-size-fits-all process.” For example, the American School Counselor Association (ASCA) National Model specifically urges school counselors to “include a developmentally appropriate curriculum focused on the mindsets and behaviors all students need for postsecondary readiness and success” (ASCA, 2019b, para. 2).

Catherine posited it is critical for pre-service counselors to recognize their implicit bias and how it may affect their work helping students. In a phenomenological study conducted by Williams and colleagues (2015), the researchers interviewed high-achieving middle school students from low-income backgrounds about how their school
counselors can meet their needs. One of the findings centered around building meaningful relationships by challenging school counselors’ biases about students who live in poverty. Some of the study participants asserted that school counselors and other school administrators must remove their biases about poor students being low-achievers (Williams et al., 2015). One of the students specifically said, “I’m poor, not stupid. Sometimes I have to remind my friends and teachers about that” (Williams et al., 2015, p. 159). Another student from the study noted that educators must do a better job at recognizing the potential in students, despite their background (Williams et al., 2015).

Catherine elaborated this point and said,

I think one of the big ones is don't assume that you know what a student is going to be doing, I guess, based off of -- sometimes we have these biases or these implicit biases that we may assume something about a student, like what that student wants to do or where that student wants to go after. And I think just start being mindful of those and challenging those. We're at an opportunity as pre-service counselors to have -- well, I guess not everybody, but during this time, I've been able to watch so many webinars, and just my knowledge of implicit biases and just anything that helps me or will help me in the counseling role, I think, just -- I don't really know if I'm making sense, but just kind of keep educating yourself, and don't lose that.

The outcome evaluation data uncovered the following key findings: a change in pre-service counselors’ college counseling and *college undermatching* knowledge and pre-service counselors’ perceptions of their roles. Pre-service counselors acknowledged that the intervention made them more aware of *college undermatching* and they recognize
the importance of helping students develop a postsecondary plan. In addition, the intervention participants shared the significance of communicating to students the many postsecondary education options available. The pre-service counselors also recognized their role as institutional agents and how their access to social capital can provide students with information and resources needed to navigate the college admission process. Lastly, although the pre-service counselors’ perceptions about their role in supporting students has not changed because of the intervention, they recognized that it is essential to check their biases and challenge the assumptions they may make about some students.

**Limitations**

There are several limitations evident in this study including sample size, intervention timing and length, researcher bias, social desirability, and data collection measures. Although some research indicates professional learning communities may be comprised of smaller groups (McConnell et al., 2013), it may be advantageous to have a larger sample size to include more pre-service counselor perspectives in the discussion. In addition, the research findings cannot be generalized because of the small sample size. This means the findings cannot be applied to all pre-service school counselors. Furthermore, three of the intervention participants attended the same mid-Atlantic university so they received the same college admission counseling training. In addition, the fourth participant attended a mid-Atlantic university in close proximity to the other three participants so the little college admission counseling training the participants received in their school counseling programs may be similar in nature, indicating homogenous knowledge.
Regarding timing, the intervention took place over a three-week period during the spring 2020 semester. Because the intervention happened during the latter part of the semester, the researcher may have missed the opportunity for the pre-service counselors to implement some of the strategies and share the resources learned from the intervention with their students. Quick and colleagues (2009) note it is essential for individuals who participate in professional learning to process what they have learned and apply the concepts. Unfortunately, the timing of the intervention did not allow for this and the COVID-19 pandemic prevented any in-person engagement. One of the participants emphasized this point during the focus group. If the researcher offered a virtual professional learning community in the future for pre-service counselors, the time of year would need to be further explored. Part of this missed opportunity was due to the COVID-19 pandemic that closed secondary and postsecondary schools starting mid-March 2020. However, having one or two more intervention sessions may have allowed the researcher to share more content about selective college admissions. The researcher has several colleagues who are admission leaders at some of the most selective colleges and universities in the US. Inviting one or two of those colleagues to speak to the intervention participants may have expanded the pre-service counselors’ knowledge on selective college admission and provided insight on how to support students who may not know admission to one of these elite institutions is possible.

In addition, researcher bias is a limitation in the study. The researcher has worked in the college admission profession for more than 15 years and has cultivated professional relationships with college admission professionals, both secondary and postsecondary. The researcher also works at an association whose members include
Due to the researcher’s professional context, she often engages with school counselors in-person and online and these previous interactions may have influenced how she approached and engaged participants in the intervention. It is noted that researchers who are outsiders can influence the dynamics of a group and create behaviors that may not otherwise have been present (Miles, Huberman, & Saldana, 2014). Because the participants were unfamiliar with the researcher prior to the intervention, the way they engaged with the researcher during the intervention may not have been authentic. In addition, researcher bias may have affected how the researcher interpreted participants’ responses during the post-intervention focus group and professional learning experience survey. Researcher bias may have also influenced how the researcher coded and interpreted the qualitative data from the focus group. Given the researcher’s prior knowledge of the college admission profession, she may not have analyzed the data from an objective point of view. If the researcher did not have a professional background in college admission, she may have interpreted the data with less bias. Furthermore, the researcher identifies as Black and none of the study participants identified as Black. Because of the researcher’s racial identity, this may have given her an unconscious bias towards the study participants.

Another limitation inherent to this approach to an intervention is related to a concept called social desirability. Social desirability is a form of response bias which refers to how participants may respond to questions in a focus group, interview, or survey (Furnham, 1986). Social desirability occurs when individuals distort their responses to a question to present themselves in a positive light (Furnham, 1986). Participants may have altered their responses to the post-intervention focus group questions and survey to
please the researcher. This could be due to the researcher’s background and knowledge of college admission. It could also be attributed to wanting to impress the other participants in the intervention. The intervention included four pre-service counselors and three of them were enrolled in the same school counseling graduate program. Those three pre-service counselors knew each other from their coursework so the fourth participant may have felt like an outsider. Conversely, the fourth member may have been more willing to fully participate in the intervention because they were in a space where they did not know the other individuals in the group. Social desirability is difficult to confirm, but it is important to consider its presence in the intervention.

One last limitation to consider is the data collection measures of the intervention. As previously noted, the researcher adapted the professional learning experience survey administered at the conclusion of the intervention. The original survey appeared in the Teacher Professional Evaluation Guide (Haslam, 2010) and was crafted for teachers. The researcher adapted the survey for pre-service counselors. In addition, the original survey contained eight items, whereas the adapted survey contained six items. The researcher removed two of the items from the survey because they did not align with the intervention. Furthermore, the lack of quantitative data is a limitation of the study. Although the researcher utilized a convergent parallel design to collect and analyze data, the researcher ultimately collected more qualitative data than quantitative data. The small sample size means the quantitative data is not statistically significant or generalizable (Lochmiller & Lester, 2017).

**Research and Practice Implications**
The following paragraphs describe the implications of future iterations of the intervention including sample size, duration and length, adding a needs assessment component and external space for participant collaboration, and implementing a version of the intervention beyond the K-12 space. If this intervention is replicated in the future, there are several factors to consider. For example, a larger sample size may provide more generalizable data findings. There are several ways to increase participation including recruiting pre-service counselors from other institutions outside of the mid-Atlantic or piloting a collaborative partnership with a school counseling graduate program that does not offer college admission counseling training. These approaches may expand the reach of the intervention while providing pre-service counselors with some foundational knowledge about college admission counseling and *college undermatching*. Conversely, the intervention could be replicated with a small sample size. Despite having a small number of pre-service counselors who participated in the intervention, the researcher gathered rich data based on the participants’ lived experiences. The smaller sample size allowed for each participant’s voice to be heard and afforded the pre-service counselors the opportunity to further engage with each other and the researcher.

In addition, increasing the number of virtual meeting sessions and strategically placing them throughout the academic year may be valuable for pre-service counselors. Quick and colleagues (2009) assert that effective professional learning takes place over time and allows for more engagement with others. If the researcher were able to implement the intervention throughout the academic year, pre-service counselors may have been able to apply what was learned in the virtual professional learning community...
while working with students during their internships and report the results. Quick and colleagues (2009) refer to this as *active learning*.

Another consideration for a future iteration of this intervention is conducting a needs assessment to participants in advance to determine the content the participants may find helpful. The researcher crafted the first virtual meeting session based on her knowledge of college admission counseling and *college undermatching* as well as the results of the needs assessment she conducted discussed in chapter two. The researcher assumed she knew what the pre-service counselors needed and crafted the intervention as such. Receiving input from the participants about what they need may make their experiences in the intervention more meaningful.

Furthermore, creating a space where participants in the virtual professional learning community can engage with one another outside of scheduled virtual meeting sessions may augment the experiences of pre-service counselors in the intervention. This space could serve as a way for pre-service counselors to share ideas as well as ask questions. The space could also house a collection of college counseling tools and resources for participants to download and add to their library of knowledge. Brindley and colleagues (2009) suggest that an online learning environment not only affords individuals the opportunity to collaborate, but it also allows for knowledge to be transmitted between individuals as they work towards a common goal. Pre-service counselors could utilize the space to share the content they would like to see addressed in future virtual meeting sessions. This way pre-service counselors can advocate for their needs which can help the researcher craft virtual meeting sessions to meet those needs. The researcher may even solicit the assistance of some of the pre-service counselors to
lead the virtual meeting sessions. Hord (1997) refers to this as supportive and shared leadership because individuals at all levels collaborate to promote professional growth.

One final consideration to think about is how this intervention can be implemented beyond school counseling professionals. The focus of this research study was how school counselors can use their social capital to help students of color navigate the college admission process and potentially prevent college undermatching. However, postsecondary institutions need to ensure they are prepared to meet the needs of students who fit the college undermatching profile once they are on campus. Students who college undermatch are generally from low-income households so colleges and universities must determine if they have the proper supports in place to meet these students’ unique needs. For example, do postsecondary institutions provide on-campus housing accommodations for students who do not have the means to travel home during campus breaks? Do those colleges and universities who allow these students to remain on campus also provide access to the cafeteria for food? If a student from a low-income household does not have access to transportation to a potential internship, how will postsecondary institutions help that student take advantage of the opportunity? Student support should not stop once students matriculate to college campuses. It essential to provide student support at all levels including graduate school. These are just some questions postsecondary institutions, particularly selective institutions, must ponder to prepare for this population of students.

**Intervention Roadmap**

To inform future implementation of this kind of an intervention, the researcher offers a roadmap that may serve as a as a guide and, as described in Figure 5.1, includes
the content from the first three virtual meeting sessions as well as opportunities for additional content and sessions.

**Figure 5.1**

*Intervention Roadmap*

**Conclusion**

*College undermatching* occurs when high-achieving students from low-income households apply to and enroll in less selective postsecondary institutions despite meeting the academic criteria for admission (Bastedo & Flaster, 2014; Black et al., 2015; Hoxby & Avery, 2013; Lowry, 2017). Despite the advantages selective postsecondary institutions provide to students, African American and Latino students, remain underrepresented in those spaces (Bowen et al., 2009; Hill et al., 2015). As noted throughout this dissertation, school counselors greatly influence students’ college-going behaviors. However, school counselors are often tasked with a multitude of
responsibilities and tend to have large student caseloads that limit the amount of time they can spend on college counseling (ASCA & NACAC, 2018). These disparities are especially evident for public school counselors when compared to their private school counterparts (Clinedinst, 2019). In addition, pre-service counselors rarely receive college admission counseling training as part of their graduate school experience (Bryan et al., 2011; Savitz-Romer, 2012a; West, 2020).

The intervention, a virtual professional learning community, sought to provide pre-service school counselors with strategies and resources to enhance their college counseling knowledge so they can support students of color in the college application process and potentially prevent college undermatching. A professional learning community was utilized as the intervention because research suggests PLCs are the most productive form of continuous learning (Hipp & Huffman, 2010). Overall, the intervention participants cited a positive experience in the virtual professional learning community. The participants discussed the advantages and challenges of participating in the intervention as well as how they thought their college counseling knowledge changed as a result of their participation. In addition, pre-service counselors shared their perceptions of their role in helping students navigate the college admission process and how they will help students of color find the right college match.
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Appendix A

School Counselor Cultural Competency and College Undermatch Survey

Thank you for participating in this survey. My name is Crystal Newby and I am a doctoral student at Johns Hopkins University. The purpose of this survey is to understand the cultural competencies of school counselors and how student-school counselor relationships impact college choice, particularly college undermatching. This survey should take you approximately 15 minutes to complete. You are free to skip any questions you do not wish to answer or end your participation at any time.

Please read each question carefully and answer as accurately as you can. Some of the items will require specific answers, while others will ask you to rate your opinion.

Your responses will be confidential, and data will be aggregated such that no individual response or respondent can be identified. All your answers will be kept confidential.

If you have any questions, please do not hesitate to reach out to me at cnewby2@jhu.edu. Thank you in advance.

STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS SURVEY
I have read this informed consent document and I freely choose to participate in this survey.
Yes, I consent
No, I do not consent

Directions: Please rate how well you do the things described below by selecting the appropriate response.

<table>
<thead>
<tr>
<th>Strong Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Disagree nor Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I can recognize how culture affects the help-seeking behaviors of students. 1 2 3 4 5
I can assess how my speech and tone influence my relationship with culturally different students. 1 2 3 4 5
I can discuss how familial relationships influence marginalized student achievement. 1 2 3 4 5
I can identify when a counseling approach is culturally inappropriate for a specific student. 1 2 3 4 5
I can give examples of how stereotypical beliefs about culturally different persons impact the college counseling process. 1 2 3 4 5
I can identify how my own stereotypical beliefs about historically marginalized student populations impact the college counseling process.

I can identify environmental factors, such as poverty, that can influence the college choice of students.

Cultivating a college-going culture within my school is encouraged and fully supported by school administrators.

I believe it is the primary responsibility of school counselors to ensure that students find the best fit college or university.

I provide the most current and accurate resources for students during the college search process.

My school offers sufficient college preparation resources for students to take during their high school career.

My school offers sufficient advanced courses for students to take during their high school career.

I encourage my students to take college preparation and advanced courses.

I believe my workload allows sufficient time for me to adequately provide college counseling for my students.

Directions: Please answer the following open-ended questions to the best of your ability.

1. Please define the term “college undermatch”.
2. Name some ways in which you assist your students in finding the right fit institution?
3. What college preparation materials and resources are made available to students in your school?
4. What of the aforementioned college preparation materials and resources do you see your students accessing the most?

Demographic Information

Directions: Please select one answer for each of the following questions.

Race/Ethnicity

____ Black or African American
____ White or Caucasian
____ Hispanic or Latino
____ Asian or Pacific Islander
____ Native American or American Indian or Indigenous Person
____ Mixed Race/Ethnicity
____ Prefer to Not Answer
Years of School Counseling Experience

____ 0-1 years
____ 2-5 years
____ 6-10 years
____ 10+ years

Please select one answer that best describes your school's total enrollment.

____ Fewer than 500 students
____ 501-999 students
____ 1,000-1,499 students
____ 1,500-1,999 students
____ 2,000 or more students

Please select one answer that best describes the number of students per counselor in your school.

____ 150 or fewer students
____ 151-250 students
____ 251-350 students
____ 351-450 students
____ 451-550 students
____ More than 550 students

In addition to school counseling, please describe other roles you have held in education, if applicable.

How long have you been a NACAC member?

____ 0-1 year
____ 2-5 years
____ 6-10 years
____ More than 10 years
____ I am currently not a NACAC member

Please select the regional affiliate where you reside. Choose only one.

____ Dakota ACAC
____ Great Plains ACAC
Appendix B

College Counseling Knowledge Instrument

1. Define “college undermatching.”

2. Students from low-income households who are high-academic achievers are more likely to perceive the following about college (choose all that apply):
   a. Liberal arts colleges and universities do not offer math and science majors.
   b. Flagship institutions are too focused on athletics and parties.
   c. Not enough financial aid is available at the most selective colleges and universities.
   d. Attending a liberal arts college will prevent them from attending graduate school later.

3. High school seniors who engage one-on-one with a school counselor are 6.8 times more likely to complete the Free Application for Federal Student Aid (FAFSA).
   True or False

4. High school seniors who engage one-on-one with a school counselor are ______ times more likely to attend college.
   a. 5.6
   b. 3.2
   c. 7.5
   d. 4.2
   e. None of the above

5. High school seniors who engage one-on-one with a school counselor are two times more likely to attend a college with a bachelor’s degree program.
   True or False
Appendix C

Session Feedback Survey

1. I felt fully engaged in today’s session.

   Strongly Agree   Agree   Somewhat Agree   Somewhat Disagree
   Disagree       Strongly Disagree

2. Please describe how you felt engaged in today’s session. If you did not feel engaged in today’s session, please explain why.

3. I think the information covered in today’s session will be useful to my future college counseling practices.

   Strongly Agree   Agree   Somewhat Agree   Somewhat Disagree
   Disagree       Strongly Disagree

4. Please explain how what was covered in today’s session can be applied to your future college counseling practices. If you do not feel any information from today’s session can be applied to your future college counseling practices, please explain why.

5. What would you like to see addressed in the next meeting session?
Appendix D

Focus Group Questions

Virtual Professional Learning Community Perception

1. Please share your thoughts about participating in a virtual professional learning community.
2. What did you enjoy most?
3. What did you find challenging?
4. What would you do different if you participated in a professional learning community in the future?

School Counselors’ Role in College Counseling

5. As a result of your participation, how do you think your college counseling knowledge has changed?
6. As a result of your participation in the virtual learning community, how has your perception of your role in helping students navigate the college-going process changed?

School Counselors Knowledge of College Undermatching

7. How has your knowledge about college undermatching changed?
8. Moving forward how will you help marginalized students of color find the right college match?
Appendix E

Professional Learning Experience Survey (Haslam, 2010)

1. Which of the following statements best describes the primary purpose of the virtual professional learning community? Please choose all that apply. The purpose of the virtual professional learning community was:

   a. To communicate new ideas for me to use in my college counseling practices.
   b. To provide an opportunity for me to learn from other high school counselors.
   c. To help me understand college undermatching.
   d. Not Clear
   e. Other. Please explain.

2. Which of the following statements best describes the usefulness of the virtual professional learning community? Please choose one.

   a. It was a good start.
   b. It was a good start, but I have many questions.
   c. It was a good start, and I look forward to trying these ideas in my classroom.
   d. It provided almost everything I need to implement the ideas in my classroom.
   e. It provided everything I need to implement the ideas in my classroom.
   f. Not clear

3. Indicate the extent to which the virtual professional learning community met your professional learning needs. Please choose one.

   a. It addressed my professional learning needs completely.
   b. It addressed some of my professional learning needs.
   c. It did not address my professional learning needs.
   d. This professional development did not help much because I was already familiar with the topic.

4. Which of the following statements best describes the likelihood that you will apply what you learned in this professional learning to your college counseling practices? Please choose one.

   a. I have already tried this in my college counseling practices.
   b. I have already tried this in my college counseling practices with success.
   c. I look forward to trying this in my college counseling practices in the next few weeks.
d. I have already tried this in my college counseling practices, but it was not successful. Please explain.
e. I would like to try this, but I do not have resources or materials I need.
f. I do not think this will work with my students.

5. Which of the following statements best describes how the virtual professional learning community compares with other professional development in which you have participated during the last six months? *Please choose one.*

   a. This professional development was **more useful** than other professional development I have participated in.
   b. This professional development was **about the same** as other professional development I have participated in.
   c. This professional development was **less useful** than other professional development I have participated in.
   d. I do not have an opinion.
   e. I do not have an opinion because I have not participated in other professional development in the last six months.

6. Which of the following statements best describes your likelihood to participate in a future virtual professional learning community?

   a. Very unlikely
   b. Unlikely
   c. Neither unlikely nor likely
   d. Likely
   e. Very likely
Appendix F

Virtual Meeting Session #1 Plan

I. Introductions
   a. Researcher introduces self
   b. Participants introduce themselves
      i. Name or pseudonym
      ii. Graduate program
      iii. School setting of internship/practicum (i.e. urban, rural, suburban)

II. Establish community ground rules and norms
   a. Respect in an online space

III. Purpose of the study/Expectations/Set agenda
   a. Define college undermatching and share contributing factors.
   b. Researcher shares answers from College Counseling Knowledge Instrument.
   c. Researcher shares her experiences with school counselors as well as how her career has led her to this research.
   d. What researcher hopes to do with the findings of the intervention.
   e. Participants share their experiences with college counseling in their internship/practicum.
   f. Participants share how their identities affect their work in counseling.
      i. How does your identity affect the decisions you make around college counseling?

IV. Identity Wheel Activity
   i. Participants will be asked to complete the activity during session.
   ii. Ask participants how activity connects to college counseling then researcher shares perspective.
   iii. Researcher reminds participants when the next session will take place and include what will take place.

V. Session Feedback Survey
   a. Researcher will share link to session feedback survey.
Appendix G

Identity Wheel Activity

Personal Identity Wheel

SOCIAL IDENTITY WHEEL

Adapted from Arizona State University
AAUW Diversity and Inclusion Toolkit
Curriculum Vitae: Crystal E. Newby  
Greater Washington, D.C. Metropolitan Area

EDUCATION

Doctor of Education, Entrepreneurial Leadership in Education  
Johns Hopkins University School of Education, Baltimore, MD | August 2020

Master of Science, Human Resources Administration  
The University of Scranton, Scranton, PA | Dec 2007

Bachelor of Arts, Communication  
The University of Scranton, Scranton, PA | May 2004

PROFESSIONAL EXPERIENCE

National Association for College Admission Counseling  
July 2013-Present
Senior Associate Director of Education and Training  
Associate Director of Education and Training  
Assistant Director of Education and Training

Bloomsburg University  
September 2010-July 2013  
Assistant Director of Admissions

Montclair State University  
August 2009-September 2010  
Associate Director of Undergraduate Admissions, Outreach Services

The University of Scranton  
August 2004-August 2009  
Senior Assistant Director of Admissions  
Assistant Director of Admissions  
Admissions Counselor

VOLUNTEER EXPERIENCE

American School Counselor Association  
2015-2020  
School Counselor of the Year Selection Committee Member

National Association of Secondary School Principals  
January 2016-December 2017  
Facilitator and Consultant
PRESENTATIONS


Newby, C., Bevacqua, M.A., Jones, D., Burge, D., & Wright, E. Professional Engagement: The Benefits of Getting Involved with PACAC and NACAC. Pennsylvania Association for College Admission Counseling Annual Conference, Pocono Manor, PA, June 2018


