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A DESCRIPTIVE PHENOMENOLOGICAL STUDY OF COLLEGE STUDENT BELONGING EXPERIENCES WITH PEERS IN THE FIRST SEMESTER

by

John Milton Knapp

A Dissertation Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

in Urban Education

at

The University of Wisconsin-Milwaukee

December 2023

ABSTRACT

A DESCRIPTIVE PHENOMENOLOGICAL STUDY OF COLLEGE STUDENT BELONGING EXPERIENCES WITH PEERS IN THE FIRST SEMESTER

by

John Milton Knapp

The University of Wisconsin-Milwaukee, 2023
Under the Supervision of Professor Cheryl K. Baldwin

This study investigated how first-year college students described belonging experiences with college peers in the first semester, specifically conceptualizing these relationships as bidirectional, where college students both receive and provide support to one another in a mutual way. A descriptive phenomenological research design was employed to identify invariant structures of this phenomenon utilizing data collected from semi-structured interviews with 10 first-time, full-time undergraduate college students in their first semester enrolled at a private, religiously affiliated, four-year university in the midwestern United States. This study found that the invariant structures of belonging in college peer relationships in the first semester were representative of qualities of authenticity and genuineness, volitional friends or friends by choice, trust and comfort, and unconditional and unqualified emotional support among college peers. These findings suggest that these interpersonal relationship qualities, in addition to the setting qualities emphasized in past research, are important for belonging need fulfillment among college students early in collegiate life. Additionally, these findings indicate that college peer relationships and sense of belonging, particularly in the first semester, are more complex and multifaceted than how college peer support has been conceptualized and investigated in the belonging literature.

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This dissertation is dedicated to my wife Julie.

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Chapter 1: Introduction

Ensuring college success for all students remains one of the most pressing issues for higher education administrators across the United States. There is near universal interest in attending college (Choy, 1999), however, six-year graduation rates vary greatly across institutional types and college student racial/ethnic groups. According to recent statistics published by the Department of Education (Hussar et al., 2020), only 61% of those individuals enrolled as first-time, full-time students at public institutions in the fall of 2012 had earned their bachelor's degree by 2018. Private non-profit institutions fared slightly better with a 67% six-year graduation rate, whereas only 25% of those students who enrolled in a private for-profit institution had earned their degree in the same amount of time. College student attrition also disproportionately impacts traditionally marginalized college student racial/ethnic groups. The six-year graduation rate for White first-time, full-time undergraduate students enrolled at a four-year degree granting institution in the fall of 2010 was 64%, consistent with the composite national average. However, the six-year graduation rate of the same criteria for Hispanic/Latinx college students was only 54% and dropped to 40% and 39% for Black college students and American Indian/Alaska Native college students respectively (de Brey et al., 2018).

These statistics are concerning when one considers how many young people in the United States enroll in college immediately after high school each year and the potential consequences of not earning a degree. In 2012, approximately 2.1 million high school graduates immediately enrolled in a postsecondary institution, with approximately 777,000 individuals specifically enrolling at institutions granting four-year degrees (Kena et al., 2014). As of 2018 approximately 295,000 of those individuals, or 37.9%, had not completed their degree (Hussar et al., 2020). Failure to earn a bachelor's degree can carry heavy financial consequences. Pennington (2004)

found that individuals with a bachelor's degree will earn over one million dollars more throughout their lifetime than individuals with just a high school diploma, reinforcing the findings of Kuh et al. (2006) who noted that "earning a bachelor's degree is the most important rung on the economic ladder" (p. 1). Additionally, McCabe (2000) noted that postsecondary education will become increasingly needed for helping individuals deal with the political, social, and cultural issues they will encounter throughout their lives. From an institutional perspective, college student attrition can cost a single university millions of dollars in lost revenue annually and, when considered collectively, billions of dollars across all postsecondary institutions in the United States (Raisman, 2013).

College Attrition and Persistence Research

Understanding what fosters college student success and helps mitigate college student attrition has been a focus of higher education researchers for some time. The study of undergraduate student attrition in the United States can be traced backed to the 1930s (Demetriou & Schmitz-Sciborski, 2011; McNeely, 1937) and has grown to become one of the most extensively studied issues in higher education research (Tinto, 2007). Some of the earliest theoretical models used to explain college student attrition were developed by Spady (1970, 1971) and Tinto (1975) in the 1970s. Applying a sociological lens to the issue of college student attrition, both Spady and Tinto considered how individual college student factors interacted with institutional factors to influence departure decisions. Tinto's (1975) model of student departure is perhaps the most influential model of attrition in the literature to date (Berger et al., 2012; Braxton et al., 1997), suggesting that college students who are able to integrate into the academic and social systems of college life are less likely to depart. Although Tinto's (1975) use of the concept of integration has been criticized (Rendón et al., 2000; Tierney, 1992), and there has

been little empirical support found for the concept of academic integration (Kuh et al., 2006), most models of college student attrition today align with this interactionist approach, although researchers continue to categorize varying interactionist models of attrition in different ways (see Manyanga et al., 2017). Regardless, Tinto's (1975) model was important to the study of college student attrition since it provided researchers with an initial framework to test the hypothetical relationships between student and environmental factors thought to influence attrition (Berger et al., 2012).

From Tinto's (1975) model, as well as many others that proliferated over time (see Alhojani, 2016), the last 40 years of research has led to the identification of many factors that seem to influence college student attrition. In a comprehensive review of the college student success literature, Kuh et al. (2006) identified a wide number of student background characteristics and pre-college experiences that influenced college students' likelihood of matriculating. These included enrollment choices, aptitude and college readiness, family and peer support, motivation to learn, as well as demographic factors like race, gender, and socioeconomic status. Other factors that have also been found to be associated with college student attrition over time include but are not limited to academic preparation (Bean, 1980), academic involvement and engagement (Astin, 1984; Kuh, 2001, Kuh, 2003; Kuh et al., 2008), social engagement (Swail, 2004), and economic/financial consideration variables (Braxton et al., 2004). Thus, over time researchers have come to learn a great deal about what can influence attrition, however, there is still an inherent complexity in fully understanding how all these potential factors interact, leading Braxton et al. (1997) to coin the phrase the "student departure puzzle", describing the challenge involved in understanding the college student attrition phenomenon. Additionally, despite the development of this extensive body of college student

attrition research the relative levels of departure from college have remained constant over time (Swail, 2004).

College Student Motivation, Psychological Needs, and Belonging

Scholars have also called for a more thorough investigation of how psychological needs and college student motivation is related to college student persistence and success (Guiffrida, 2006; Guiffrida et al., 2013; Tinto, 2017). Tinto (2017) has specifically suggested that understanding college motivation, and how experiences in college come to influence this motivation, is an area of inquiry underexamined in the current college student success literature:

> Students have to want to persist and expend the effort to do so even when faced with the challenges they sometimes encounter. Without motivation and the effort it engenders, persistence is unlikely. Motivation, however, is malleable. It can be enhanced or diminished by student experiences in college. As such, one can ask about the nature of those experiences and how they come to influence student motivation to persist in college and in turn their willingness to expend the effort to do so. (p. 255)

In this passage Tinto (2017) is suggesting that in addition to examining the factors and processes underlying why college students leave, the traditional focus of attrition and retention research, there is also a need to further understand how forces like college student motivation help facilitate college persistence, matriculation, and ultimately degree attainment. Shushok and Hulme (2006) define this as a strengths-based approach to the study of college student attrition, since it focuses on understanding how college students succeed instead of investigating the "pathology" of why they fail.

One growing area of higher education research that aligns with this perspective and has the potential to help further refine and advance knowledge about college student persistence and

success is research on college student sense of belonging (Hausmann et al., 2009; Hoffman et al., 2002; Strayhorn, 2018; Tinto, 2017). Adapted from foundational work in behavioral and developmental psychology on human psychological needs (Baumeister & Leary, 1995; Deci & Ryan, 1985), and evolving in part from early operationalizations of the concept of belonging in K-12 research (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993), college student sense of belonging research investigates how experiencing a sense of belonging or alienation in college may influence college student outcomes like academic achievement and persistence. Most of the research in this tradition has so far focused on exploring which experiences in college appear to influence changes in belonging need satisfaction among different college student populations (Strayhorn, 2018), which is thought to subsequently influence college student motivation and behavioral quality (Deci & Ryan, 1985).

It is important to note that college student sense of belonging research is a focused examination of one specific psychological need and belonging is only one component of a larger psychological needs-based motivational framework (Strayhorn, 2018). Psychological needs and their relationship to motivation have been studied and documented extensively in the areas of behavioral and developmental psychology (Baumeister & Leary, 1995; Deci & Ryan, 1985; Maslow, 1954) which has informed the study of belonging at both the K-12 (Goodenow; 1993a, 1993b) and college level (Strayhorn, 2018). One of the most well documented and empirically validated psychological needs-based motivational frameworks that underlies this research is self-determination theory (SDT) (see Ryan & Deci, 2017). Self-determination theory posits that experiences in the social context either facilitate psychological need fulfillment or constrain it, which in turn influences different types of motivation and behavioral qualities among individuals (Deci & Ryan, 1985). When applied to higher education, this motivational framework suggests

that experiences in college will act to either fulfill or constrain students' psychological needs for autonomy, competence, and relatedness, which Ryan and Deci (2017) identify as belonging. Based upon the fundamental conceptualizations of belonging from psychology (Baumeister & Leary, 1995; Ryan & Deci, 2017), the belonging need in the developmental context of college can be understood as the need to form stable, frequent, positive, mutually caring and reciprocally beneficial connections with others in the institutional environment. Thus, experiencing a sense of belonging or a sense of alienation, which indicates a lack of belonging need fulfillment, influences college student motivation and the behavioral qualities of college students' involvement in collegiate life (Ryan and Deci, 2017; Strayhorn, 2018).

Consequently, the college student sense of belonging literature can help elucidate the relationships between psychological need fulfillment, college student motivation, behavioral quality, and ultimately college student success. However, the college belonging literature is still in its infancy (Slaten et al., 2018; Strayhorn, 2018) and has not often been applied as a conceptual framework for understanding college student persistence or success (Hausmann et al., 2009). A sense of belonging was first introduced into higher education research over twenty years ago (Hurtado & Carter, 1997), but most of the dominant models of college student persistence to date have underexamined or ignored the exploration of this psychological need and its relationship to college student motivation and persistence (Hausmann et al., 2009; Hoffman et al., 2002; Tinto, 2017). Instead, the more widely applied frameworks, such as college student involvement (Astin, 1984) or college student engagement (Kuh, 2001), focus more narrowly on determining how actual behavioral involvement in college life, such as involvement in athletics and social groups or the amount of time students spend studying, directly predicts

matriculation and success. These approaches generally do not explore the role of psychological needs (Hausman et al., 2009).

While research on college student sense of belonging does not focus on the direct relationship between college student behavioral involvement and matriculation *per se*, college student belonging research is concerned with understanding how the fulfilment or constraint of a psychological need to belong can act as a force that influences the effort and energy underlying behavioral quality and involvement in college life. This interesting link between a sense of belonging, and its subsequent influence on types of motivation that underly the quality of college student behavioral involvement, provides a nuanced research lens through which to investigate the relationship between what college students experience in the collegiate environment, how that impacts their behavior and effort, and ultimately their persistence towards earning their degree. This conceptual framing and the review of college belonging literature that informs this study is explored in extensive detail in chapter two.

Belonging in Peer-to-Peer Relationships in College

Within the college belonging research, preliminary evidence suggests there is an important relationship that exists between college student sense of belonging and college student success (Strayhorn, 2018). However, much is unknown about how a sense of belonging manifests itself for different student populations across diverse and complex postsecondary institutional environments (Strayhorn, 2018). The college belonging literature so far indicates that college student sense of belonging is affected by a number of variables such as race/ethnicity (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008), faculty relationships (Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018), grade level (Hurtado & Carter, 1997), gender (Hurtado

& Carter, 1997; Johnson et al., 2007; Strayhorn, 2008), setting level (Freeman et al., 2007), setting qualities (Hurtado & Carter, 1997, Johnson et al., 2007), residence/living learning community (Hoffman et al., 2002), campus climate (Hurtado & Carter, 1997; Johnson et al., 2007), and peer relationships (Hoffman et al. 2002-2003; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Strayhorn et al., 2016; Slaten et al., 2014).

This study was particularly concerned with contributing knowledge about the important role of peer-to-peer developmental relationships for fostering a sense of belonging in college (Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten et al., 2014; Strayhorn, 2008, 2009; Strayhorn et al., 2016). Although several studies have identified a relationship between college student sense of belonging and peer relationships, their findings vary and further research around this phenomenon is needed. For example, Hoffman et al. (2002) found evidence for a relationship between perceptions of peer support and classroom sense of belonging among first year undergraduate students in a first-year seminar course. In a qualitative study Slaten et al. (2014) also identified interpersonal relationships with peers as fundamental to college students' sense of belonging. However, in the subsequent development of a measure of university belonging, items relating to peer relationships did not load as a factor and were dropped (Slaten et al., 2018). Additionally, these studies did not control for racial/ethnic group differences among their participants.

In the college belonging research that has considered race/ethnicity in college level peer interactions the findings are also varied. Johnson et al. (2007) found that interactions with diverse peers helped foster a sense of belonging for Latinx/Hispanic first-year college students but not for other college student racial/ethnic groups. In contrast, Strayhorn (2008) found evidence that interactions with diverse peers was positively associated with belonging for both

Latinx college students and White college students, although these diverse interactions were overall more impactful for Latinx college students' sense of belonging. Strayhorn (2009) found similar results in a study conducted with Black male undergraduate students where interactions with diverse peers influenced participants' sense of belonging. Specifically, Strayhorn (2009) found that belonging was most positively impacted by socializing with peers of a different race. In a later study, Strayhorn et al. (2016) found that interactions with diverse peers also had a positive impact on Native American college students' sense of belonging. Although these findings do vary somewhat, they are generally consistent with other related research from the higher education impact literature which has shown that diverse peer interactions and diversity in friendship groups does impact college students (e.g., Antonio, 2001; Astin, 1993; Smith et al., 1997). However, the differentiated and nuanced results of these belonging studies in the college peer-to-peer belonging space also suggests a clear need for further research.

Additionally, one specific dimension of belonging that remains underexamined in this literature is the dimension of mutuality, that belonging is the result of relationships where an individual not only experiences receiving support and care from others but contributes support and care in return (Baumeister & Leary, 1995; Ryan & Deci, 2017). To date, research that has investigated belonging in supportive relationships with faculty (Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018) or in college peer relationships (Hoffman et al. 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Slaten et al., 2014) has not conceptualized these relationships as bidirectional. Rather, they have only been treated as unidirectional, where college students are the recipients of support but are not contributing support in return.

The importance of better understanding this dimension of mutuality is significant. The mutuality dimension of belonging suggests that college students who volitionally support their peers are in their own right important actors in their development and success through influencing their own sense of belonging, the sense of belonging of others, and subsequently their own motivation and behavioral quality in college. From an institutional lens, postsecondary institutions often view college student development as the byproduct of institutional action, for example, how institutions create conditions in structured environments that foster interactions with peers that are intended to lead to college student development. A prime example of these are first-year seminar classes or first-year student experiences. However, mutuality in peer-to-peer supportive relationships illustrates the important ways that college student development results from more than just institutional conditions. Rather, a college student's ability to develop meaningful relationships and exercise volition to support others, found across both structured and unstructured environments in the complex ecology of collegiate social and academic life, also has an important impact on college student development over time as well as the likelihood of college success.

Finally, although the relationship between specific college peer interactions, supportive college peer relationships, and belonging has been established, very little is known about the quality and character of these interactions or relationships. Specifically, those studies that have examined supportive college peer relationships as a dimension of college student belonging have only operationalized this support in more generalizable ways, for example, asking students if they feel they have peers that support them in a first-year seminar course (Hoffman et al., 2002) or asking college students whether they perceive their peers as generally friendly, supportive, and fostering a sense of belonging (Strayhorn, 2008, 2009; Strayhorn et al., 2016). Research has

not so far provided a more nuanced and descriptive understanding of what these college peer relationships that foster belonging look like. Thus, there is a need in the literature to better understand the nature and character of belonging as experienced in peer-to-peer developmental relationships in college, and there is also a need to conceptualize these relationships as bidirectional, where college students are not only recipients of support but also contributors of support and care towards others. For the purposes of this study belonging in college peer relationships should be understood as dyadic friendships (Rubin et al., 1998), where these friendships are characterized by durability, frequency of interaction, positivity, and mutual affective care and support between individuals (Baumeister & Leary, 1995; Ryan & Deci, 2017).

Purpose Statement

The purpose of this study was to describe college students' experiences of belonging in peer-to-peer relationships in the first semester of college. Through a descriptive phenomenological research design this study sought to identify the invariant structures of this phenomenon as experienced for a diverse sample of first-year college students in their first semester.

Significance

Although studies have identified that interactions with peers is associated with college student sense of belonging their results are varied and differentiated (Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Strayhorn et al., 2016), suggesting a need to better understand the nature of this phenomenon and how it is experienced and assigned meaning through the perspective of college students. The descriptive phenomenological qualitative research design employed for this study utilized qualitative data collection and analysis methods to arrive at description of the invariant structures (Giorgi, 2009)

underlying these college peer belonging experiences. Furthermore, this study was also the first of its kind to explore belonging in college peer relationships specifically conceptualized as bidirectional, encompassing the important mutuality dimension of belonging where individuals are not only recipients of support but contributors of support as well.

This study was also conducted with first year college students in their first semester, a crucial context in which belonging need fulfilment or constraint is likely to be more salient than at other times in the college student lifecycle. Strayhorn (2018) suggests that the need to belong is particularly salient in contexts where individuals are new to an established group or community which occurs most prominently for college students in the first semester of their first year. Further knowledge on how belonging is experienced in college peer relationships during this important time in college student life helps inform how higher education administrators think about developing first-year experiences and programming that meet college students' psychological need to belong in order to prepare them for collegiate success throughout their career.

Research Question

This study was guided by the following research question:

RQ: How do first-year college students perceive and describe experiences of belonging in peer-to-peer relationships in their first semester?

The primary components of this question are "how", "perceive", "describe", "experience", and "belonging". Consistent with the suggestion of Moustakas (1994), some of this terminology is briefly discussed to lend clarity and intent to its use. The term "how" was selected since it indicates an openness to whatever would emerge through data collection about belonging with college peers. The phenomenon of interest, "belonging", is understood as

relationships/friendships or connections with peers characterized by frequency, positivity, and mutuality. “Perceive”, then, as a term was selected since it represents an individual sense of belonging need fulfilment among study participants. Since phenomenological research seeks for rich description of a phenomena as experienced by the individual, the term “describe” was used to elicit the language participants used to portray this phenomenon. The term “experiences” acted holistically, aligning with the phenomenological aim of situating experience as the foundation for understanding a phenomenon in the lifeworld (Moustakas, 1994).

Methodology

This qualitative study utilized a descriptive phenomenological research design to describe the invariant structures of belonging experiences in college peer relationships. This research method was selected because it allowed the researcher to center the research on the lived experiences of college student participants along an understudied dimension of belonging while removing researcher bias in a rigorous and reliable way (Giorgi, 2009). A total of 10 study participants were recruited from both a first-year mandatory business fundamentals course and a specialized scholars program for first generation college students at a private four-year institution in the midwestern United States. Participants for this study were first-time, full-time undergraduate students who were not involved in collegiate athletics and lived on campus. Data were collected using a two-interview approach modified from Seidman (2019). Each of these 45-minute semi-structured interviews focused on the exploration of participants’ experiences of belonging with peers and the meaning they ascribe to these experiences. Data were analyzed using the descriptive phenomenological method for psychology developed by Giorgi (2009). This data analysis led to four eidetic invariant structures of the phenomenon under consideration

(Giorgi, 2009), understood as the structures of belonging experiences with first semester, first year college peers that did not vary among participants or over this time.

Definition of Terms

Several key terms are outlined and defined here since they appear throughout this text.

Belonging

Belonging is a psychological need underlying motivation that when fulfilled can be understood as a state of being or experience that is beyond mere affiliation, but rather has a threshold characterized by stability, positive regard, frequency of interaction, mutuality and reciprocity of care and support, whereby an individual both gives to and receives from others in a beneficial manner (Baumeister & Leary, 1995; Ryan & Deci, 2017). A sense of belonging refers to the degree to which individuals are experiencing the fulfillment of the belonging need.

First-year Students

First-year students in this study are defined as individuals who are considered high school completers, who have earned a high school diploma or an equivalent credential including a GED (Hussar et al., 2020), and who are enrolling in a higher education institution for the first time. Aside from potential college level coursework that was conducted while still in high school, these individuals have not been enrolled in a postsecondary institution at any other time.

Invariant Structures

In line with the descriptive phenomenological work of Giorgi (2009), the term invariant structures describes the structures of a phenomenon "that hold" over time (Vagle, 2018). Invariant structures are not unlike the term essence that has been used in transcendental phenomenological research by Moustakas (1994), but as Giorgi (2009) notes, invariant structures

are less conflicting and more easily appropriated by researchers of both natural and human sciences. Invariant structures should not be equated with the philosophical concept of essence.

Conclusion

The intent of this research study was to better describe the invariant structures of belonging experienced through relationships with college peers for first-year undergraduate students in their first semester. Given the important ways that the fulfilment of the psychological need to belong can influence motivation and behavioral quality in the developmental context of college, postsecondary institutions need to better understand the nature of belonging experiences relating to developmental peer relations. Further knowledge on how belonging is experienced in developmental relationships with peers can inform how administrators think about developing first-year experiences and programming that meet college students' psychological need to belong in order to prepare them for collegiate success throughout their career. This study can also contribute to the literature by providing researchers with a more descriptive understanding of this phenomenon which will inform future belonging research and may help enrich current conceptualization and contextualization of this phenomena.

Chapter 2: Literature Review

In addition to reviewing research on college student sense of belonging, this chapter reviews the precursor foundational knowledge necessary for understanding the extant literature as well as the methodological considerations that guide this research. This chapter is comprised of four main sections, each of which addresses a distinct body of literature that contributes to an overall conceptual framework for this study. First, given that this study is concerned with how college student sense of belonging research can inform our broader understanding of the college student persistence process, the first section of this chapter focuses on providing conceptual differentiation and clarity. I review three frameworks of college student persistence: college student integration (Tinto, 1975), college student involvement (Astin, 1984), and college student engagement (Kuh, 2001). Each of these frameworks are considered in turn, examining their relationship to one another and how they have contributed new knowledge about college student persistence. At the end of this section their relationship with the college student sense of belonging literature is considered holistically. As Strayhorn (2018) has noted, researchers often confuse research on "what students *do* with what students *need* and *feel*" (p. 24). This section intends to lend clarity to this distinction.

The second section of this chapter reviews the foundational elements of self-determination theory (Deci & Ryan, 1985), a psychological needs-based motivational framework. I first examine the nature of psychological needs, how the social environment acts to support or hinder this need satisfaction, and how need fulfillment or constraint is functionally related to different types of motivation and behavioral quality. This is followed by a review of four studies in the educational domain, two which explored the relationship between

psychological need fulfillment and behavior in the K-12 school context and two others which explored the same in the postsecondary context.

This review of self-determination theory is important for two reasons. First it provides an overview of the theoretical foundations from which the study of belonging in higher education has been conceptualized and derived. Second, having differentiated the focus of college student sense of belonging research and college student persistence research in the first section of this literature review, the second section works to show how these areas of research are still connected to one another through this overarching psychological needs-based motivational framework. For example, current college student persistence research often examines a sense of belonging as an isolated variable that is correlated with persistence, such as being associated with the idea of institutional fit (Hoffman et al., 2002; Hurtado & Carter, 1997) or integration with the college environment (Tinto, 1975). However, self-determination theory illustrates how psychological need satisfaction, like experiencing a sense of belonging, is not just correlated but causally related to how college students experience motivation towards developmental behaviors in the institutional environment. Stated differently, the reason for this inclusion is that it helps elaborate a framework for college student persistence that clearly identifies the relationships that exist between what students *need* and *feel* and what they *do*. Further, it elaborates how the constraint or fulfilment of what college students psychologically *need* is functionally related to not only what they *do*, but importantly, *how* they do it. Although Strayhorn (2018) identified in his review that college student sense of belonging is a component of a larger motivational framework, many studies of college student sense of belonging across the literature do not explore or incorporate the direct connection between psychological need satisfaction, motivation, and behavioral quality. This unintentionally ignores the important ways that a framework like

self-determination theory (Deci & Ryan, 1985) helps explain how experiences in college influence the malleable nature of student effort (Guiffrida, 2006; Guiffrida et al., 2013; Tinto, 2017).

After reviewing self-determination theory and related educational research, the third section of this chapter addresses the foundational conceptualizations of the single need of belonging and its relevant dimensions (Baumeister & Leary, 1995; Ryan & Deci, 2017), as well as how belonging has been operationalized and studied first in the K-12 context (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). Across the college student sense of belonging literature, belonging has been conceptualized and operationalized in a variety of ways (Slaten, Yough et al., 2014; Slaten, Elison et al., 2018; Strayhorn, 2018), making it important to return to these foundational conceptualizations of belonging to determine how different dimensions of this concept have been examined. I have also chosen to review the early operationalizations of the belonging concept in the K-12 context since this research identified important early findings about group effects for how belonging is experienced for different individuals within different contexts (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). This third section also culminates with this study's specific conceptualization of a sense of belonging, identifying that a sense of belonging occurs through connections to other individuals in the social context, both on an individual level or through membership to a group, where these connections are experienced as stable, positive, frequent, and where individuals experience mutuality in feeling cared for by another or others, while also contributing reciprocal care in return.

Finally, after reviewing the conceptual foundations of belonging and early K-12 belonging research I turn to the fourth and final section of this chapter which reviews the college student sense of belonging literature. This final analysis identifies what we know about college

student sense of belonging while also highlighting specific elements across this literature that are important for this study's design. This includes reviewing group effects in the study of college student sense of belonging, considering the different setting levels at which belonging has been explored, examining the variability in how the concept of belonging itself has been conceptualized and measured, identifying which dimensions of belonging have been explored in this research, and indicating which connections to others in the postsecondary environment that seem to influence college student sense of belonging warrant further investigation. I conduct this review through examining several representative articles pulled from a broader literature search that illustrates these points. This chapter concludes with the purpose of this study.

College Student Integration, Involvement, and Engagement

In order to differentiate the focus of the college student belonging literature from other college student persistence frameworks, the first section of this chapter reviews college student integration (Tinto, 1975, 1987, 1993), college student involvement (Astin, 1984), and college student engagement (Kuh, 2001). I focus first on the work of Vincent Tinto (1975,1987,1993) since his development of the student integration concept is often considered conceptually similar to college student sense of belonging (Hoffman et al., 2002; Hurtado & Carter, 1997) and his early model of student departure is considered foundational to the study of college student attrition (Braxton et al., 1997). The second part of this section focuses on exploring college student involvement (Astin, 1984) and college student engagement (Kuh, 2001), which examined the direct relationship between college student behaviors and college student success. Taken together, these well-established and influential frameworks represent how college student persistence is understood in the higher education literature today.

College Student Integration

The concept of college student integration, first proposed by Tinto (1975) in his model of college student departure, has proven foundational to the growth of scholarship on student attrition and persistence and is considered by many to be "near paradigmatic" (Braxton et al., 1997). Tinto's work maintains a prominent place in the scholarly dialogue (Braxton et al., 1997), having generated volumes of empirical research and scholarly articles (Demetriou & Schmitz-Sciborski, 2011) while enduring several criticisms and revisions over time (Bean, 1980; Bean & Metzner, 1985; Braxton & Lien, 2000; Braxton et al, 1997; Hurtado & Carter, 1997; Nora, 2001-02; Tierney, 1992). Grounded firmly in a sociological perspective of college student attrition, Tinto (1975) argued that college student departure was a longitudinal behavioral process influenced by the interaction of individual student characteristics with aspects of the postsecondary institutional environment. Applying the sociological framework of egotistical suicide developed by Durkheim (1897), which emphasized that individuals depart society due to a lack of integration into their communities, Tinto (1975) argued that a lack of integration into the postsecondary environment, into both the academic system and social system of college, was key to understanding what influenced college student departure behaviors.

In his framework these two systems, the academic system and the social system, represented different aspects of the college environment. The academic system encompassed aspects of "the formal education of students", and the social system was evident in "the daily life and personal needs" of the students (Tinto, 1993, p. 106). To integrate into the academic system students were required to integrate with both "structural" and "normative" aspects of the college environment. Structural integration reflected meeting those demands that were often institutionally driven, for example achieving good grades and meeting curriculum requirements,

whereas normative integration meant feeling a sense of congruence with the attitudes and values of other individuals in the college environment, for example, sharing similar attitudes with your peers and faculty about valuing academic pursuit. Tinto (1975) believed social integration occurred “primarily through informal peer group associations, semi-formal extracurricular activities, and interactions with faculty and administrative personnel within the college” (p. 107). Social integration and academic integration were also linked, existing as both complimentary and reciprocally related processes. They could be complimentary since integration into one system could enhance integration into the other. For example, interacting with faculty could facilitate academic integration as well as social integration into the collegiate context. They could also function reciprocally, whereby too much integration in one system might negatively affect integration into another. For example, a student who focused entirely on integrating into the social fabric of the collegiate environment might struggle to meet the academic requirements of college life or, alternatively, a student who focused their energies on integration into the academic system might ultimately leave the institution due to a lack of social integration.

Tinto (1975) also incorporated students’ commitments to their educational goals and to the institution, influenced by their family background, individual attributes, and prior schooling, as facilitators of social and academic integration in his model. Not all college students brought the same “expectational and motivational” attributes with them to college, and these potential variations in psychological predispositions towards the tasks and demands of college would predict many of the ways students interacted in the postsecondary environment (Tinto, 1975, p. 93). Tinto termed these psychological variables goal commitments and institutional commitments and considered them dynamic variables that could change over time. Tinto (1975) hypothesized that higher initial levels of goal commitment and institutional commitment would

foster student integration which would in turn enhance these commitments further, whereas lower levels of initial goal commitment and institutional commitment might frustrate student integration and diminish a student's commitments over time, increasing the probability that the student might engage in departure related behaviors. "Other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion" (Tinto,1975, p. 96). Therefore, institutional commitment and goal commitment, student behaviors, and the process of student integration were important central components for this early model of college student departure.

Incorporation of "Rites of Passage". In later revisions of this model, Tinto (1987, 1993) incorporated an anthropological framework from van Gennep (1960) to explain college student integration as a function of the life transition experienced by students moving from high school to college. Van Gennep (1960) argued that "rites of passage" in tribal societies acted as important mechanisms for moving individuals from one developmental stage in life to another. Rituals were "developmental patterns necessary for society's maintenance", and "all cultures had rituals that functioned in a similar fashion" (as cited in Tierney, 1992). Tinto (1987, 1993) applied this framework to his theory, arguing that higher education institutions functioned in a similar way, acting as a rite of passage that moved young men and women from one developmental period in their lives to the next. A student's ability to navigate this rite of passage, transitioning from high school to college, would impact integration into the institutional systems of the postsecondary environment. Tierney (1992) summarized this idea as follows:

> In effect, a college is an institution designed as a rite of passage that functions in much the same manner as ritualized institutions in other societies. Postsecondary institutions

serve as functional vehicles for incorporating the young into society by way of their integration into the college or university. (p. 606)

Based on this view, Tinto (1987, 1993) posited that student integration occurred in three fundamental stages: a separation stage, a transition stage, and an integration stage. In the first separation stage, students would separate from their former group associations like their family, high school peers, and home community. During the second transition stage, as students began to interact in their new environment, they would become acclimated to “new norms and patterns of behavior” (Tinto, 1993, p. 98). This stage was followed by the final integration stage, a period where students became more fully integrated into the institutional society, as they adopted new norms and behaviors appropriate for the postsecondary institutional setting. According to Tinto (1987, 1993), a failure to navigate these stages of separation, transition, and integration would increase the likelihood that students would depart from an institution voluntarily or would fail to persist academically.

Summary of College Student Integration Framework. In sum, the model of student departure developed by Tinto (1975, 1987, 1993) explicated a longitudinal process that considered the relationship between several important variables. First, it considered how students’ background characteristics influenced their commitment to their educational goals and to the institution they enrolled in. Second, it explained how these commitment variables influenced the transition process from high school to college life and the subsequent ability of a student to integrate into the institutional environment among both social and academic systems. Finally, this model emphasized that the experiences students encountered during this integration process influenced further student goal-oriented behaviors, which resulted in either further integration into the institutional environment, or alternatively, departure related behaviors.

Compared to prior research on college student attrition, Tinto (1975, 1987, 1993) not only identified the potential variables involved in this longitudinal process but additionally explored how individual level and institutional level characteristics were relationally linked. Given the "near-paradigmatic" status of Tinto (1975) today (Braxton et al., 1997), it is not surprising that his work has been tested and critiqued extensively over time. In fact, Berger et al. (2012) notes that perhaps one of the greatest contributions of Tinto's work is that it provided a model of student departure that allowed future researchers the ability to empirically test and explore the nature of student retention, creating the foundation for the "explosion" of research that came during the subsequent decades after. The following section outlines some early empirical research that tested the propositions put forth by Tinto (Bean, 1981; Pascarella & Terenzini, 1980), as well as one primary conceptual critique that evolved in response to his focus on the concept of integration and his application of the anthropological framework adapted from van Gennep (1960) on rites of passage (Tierney, 1992). These critiques helped identify important limitations of this work, influencing the college student attrition literature that followed.

Early Empirical Critiques of Tinto. John Bean (1980, 1981) was one of the first researchers to critique Tinto (1975) and other earlier models of college student attrition (Spady, 1970, 1971). Bean (1980) criticized these early models for lacking clearly defined variables, which made testing the hypothetical relationships represented in these models difficult. In response, Bean (1980) developed his own model of student attrition adapted from research on workplace turnover (Price, 1977). Following an initial study that identified a high degree of similarity between workplace turnover and college student attrition (Bean, 1980), Bean (1982) developed a causal model of student attrition that incorporated a wider range of variables than found in Tinto's (1975) research. Bean's new model included environmental variables that had

not yet been tested such as transfer opportunity, ease of financing a college education, and family approval of the institution, as well as new attitudinal variables like loyalty, certainty of choice, and practical value.

As Metz (2002) explained, the incorporation of other variables that could potentially influence attrition in Bean (1982) contributed additional ways to operationalize aspects of Tinto's model, and through testing, Bean (1982) identified a new set of variables that influenced student attrition that had not been addressed in prior models. These included variables relating to finances, family support, intention to transfer, and perceptions of quality and satisfaction with an institution. Bean (1982) did, however, also find some early support for the primary assertion of Tinto (1975) that students' commitments to their educational goals and to their institution could be associated with student attrition. Specifically, Bean (1982) explored intent to leave, which he substituted for Tinto's (1975) variable of institutional commitments, finding that intent to leave accounted for most of the variation between students' attitudinal variables (loyalty, certainty of choice, satisfaction, and practical value) and actual dropout behaviors. Simply put, this suggested that there was a strong association between what students thought about being in college, how they perceived the college experience, and their intentions for staying in school.

Around the same time as Bean (1980, 1981), Pascarella and Terenzini (1980) utilized Tinto's conceptualization of social and academic integration for an early study of college student persistence. Pascarella and Terenzini (1980) were interested in determining whether the integration concept presented in Tinto (1975) could predict persistence for first-year college students. They measured Tinto's conceptualization of integration through several variables including students' relationships with peers, students' relationships with faculty, intellectual development, institutional commitment, and goal commitments. After controlling for specific

background characteristics and academic performance variables, the researchers found that the major dimensions of the integration concept presented in Tinto (1975) could reliably predict first-year college student persistence. They also found that student-faculty interactions were particularly powerful in predicting persistence among first-year college students, providing some of the earliest research to identify an important relationship between college student persistence and student-to-faculty and peer-to-peer relationships.

Although these early studies found some empirical support for the relationship between college student persistence and goal/institutional commitments (Bean, 1981), as well as the relationship between college student persistence and student-to-faculty and peer-to-peer relationships (Pascarella & Terenzini, 1980), one of the primary criticisms of Tinto's (1975, 1987, 1993) model over time has been the lack of specific empirical support for his concept of academic integration (Braxton & Lee, 2005; Braxton et al., 1997). In a review, Braxton et al. (1997) found that 19 of 40 single institution studies did not indicate a significant link between college student persistence and academic integration. Also, among 11 multi-institutional studies, only eight studies found evidence supporting this relationship (Kuh et al., 2006). In response to this lack of empirical support, some researchers have argued that the operational definitions for academic and social integration are flawed (Metz, 2002). For example, Kuh and Love (2000) have argued that bifurcating integration between two contexts, academic integration and social integration, might in fact artificially separate experiences in the classroom that influence broader social integration.

Other Conceptual Critiques of Tinto. Other scholars have provided conceptual critiques of Tinto (1987,1993), most taking issue with his use of the integration concept and his adaptation of the concept of rites of passage from van Gennep (1960) (Rendón et al., 2000;

Tierney, 1992). Tierney (1992) argued that Tinto's use of an anthropological framework was potentially harmful for students of racial and ethnic minorities. In his critique, Tierney (1992) suggested that as an anthropological work van Gennep (1960) was focused on individuals transitioning through developmental periods within their own cultures. Traditionally underrepresented students in higher education, noting specifically Native American students, were not represented in the dominant culture of most university campuses. Rather than experiencing a rite of passage, Tierney (1992) posited that social and academic integration for college students of racial and ethnic minorities could actually be a culturally disruptive experience.

Tierney (1992) also criticized Tinto's conceptualization of "college-going at the individualist level rather than a collective one" (p. 610). Again, citing Native American culture, Tierney emphasized that not all cultural groups hold the same epistemologies and ontologies in regard to individualism and collectivism. He argued that the idea of needing to "separate" from a former group association in order to integrate into the college experience was not a value-neutral assertion, given that it would not apply to all individuals the same way. Tierney (1992) cautioned about the potentially different meanings of such terminology and how it may be interpreted by different college student demographic groups:

> Although a term such as "departure" may well appear to be value-neutral to those who use the term, what social integrationists overlook is that concepts such as "departure" "dropout" or "failure" are all cultural constructs. (p. 609)

Tierney's (1992) criticism of Tinto (1987) contributed to a growing sentiment among college student attrition researchers that examinations of the college student experience should consider the nuances of specific student demographic groups. Tierney (1992) articulated clearly

the potential danger involved in treating concepts like “integration” as value neutral terms. Rather than homogenizing college student populations in research, Tierney (1992) maintained the position that cultural differences among students might prove important for understanding student retention, as different students experienced the college environment differently. Tierney (1992) felt it would be crucially important to consider how different cultural backgrounds might emphasize a variety of different expectations or values for college-bound students.

Although Tierney (1992) was not the first researcher to present an argument for considering college students as demographically and culturally distinct groups within research, he did provide one of the earliest and strongest conceptual criticisms of Tinto (1987), articulating a persuasive argument against a model of student attrition that did not account for the fact that culture influenced the way students interpreted their experiences on a college campus. By this time, student attrition research had also begun to adapt group-specific approaches to research in other areas beyond just ethnic and racial distinctions. For example, many authors had already called for a continued exploration of the differences in the college experiences of students enrolled in four-year versus two-year institutions (Bean & Metzner, 1985; Pascarella & Terenzini, 1994; Rendón & Nora, 1994). One early example of research that treated college students as distinct both in regard to ethnicity and institutional type was Nora (1990), which examined persistence and retention for Hispanic students at two-year colleges, identifying that financial aid had a significant impact on Hispanic student retention in that specific institutional setting.

Overall, both the empirical and conceptual critiques of Tinto (1975,1987) were important. These critiques identified the limitations of Tinto’s model, specifically concerning the lack of empirical support for the concept of academic integration, and also identified important concerns

about the use of the integration concept for students who were traditionally underrepresented in postsecondary institutional environments (Tierney, 1992).

Contributions of the College Student Integration Framework. Tinto's model of student departure (1975, 1987, 1993) outlined an initial conceptual framework for how students' background characteristics and commitments influenced goal-oriented behaviors, behaviors that worked to foster integration into the institutional community and mitigate departure. However, the limitations of what Tinto (1975) investigated and the criticisms of his work provided a foundation from which other important lines of inquiry examining the college student experience developed. Tinto's (1975) work considered both what students brought with them to college in the form of commitments and what they did in terms of behaviors that helped foster or thwart integration in college as part of a longitudinal process. During this time, other scholars were also conducting research with a more specific focus on investigating the predictive relationship between specific college student behaviors and departure or persistence (Astin, 1975, 1977; Panos & Astin, 1968). This research provided the conceptual foundations for another framework that would become highly influential in higher education research, college student involvement (Astin, 1984).

College Student Involvement

Beginning in the 1960s, Alexander Astin and his colleagues at the University of California – Los Angeles began investigating college student attrition utilizing large national databases of information collected from colleges and universities across the country (Berger et al., 2012). Some of this early research, in line with Tinto (1975), was focused on determining what predicted dropout (Panos & Astin, 1968; Astin, 1975). Overtime, Astin (1977, 1984) identified that involvement in college life, what he came to define as "the amount of physical and

psychological energy that the student devotes to the academic experience," was associated with retention and persistence whereas non-involvement was directly related to departure. According to Astin (1984), a highly involved student was more likely to engage in behaviors in the institutional environment that enhanced student success. Astin's (1984) concept of student involvement was simple and straightforward, and the relationship between potential college involvement variables and the outcomes of departure or persistence could be easily tested by other researchers, leading to the popular adoption of this framework for examinations of student success (Berger et al., 2012).

The college student involvement framework was explained by Astin (1984) through five key postulates which are quoted here and reviewed in turn:

1. Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
2. Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.
3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams).
4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

The student involvement framework was concerned specifically with investigating actual college student behavior. “It is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines and identifies involvement” (Astin, 1984, p. 519). Therefore, in his first postulate Astin (1984) conceptualizes involvement as requiring some level of expenditure of physical and psychological energy with specific “objects”. These objects could be diverse, both specifiable to a certain degree or also generalizable regarding their direct relationship with the academic experience. For example, studying for an exam would represent a more specific object in terms of its direct relationship to an aspect of the academic experience (e.g., studying to pass the exam). A more generalizable object, like deciding to spend more time at the library, could relate to several aspects of the academic experience, for example connecting more with your peers or having access to study spaces and materials, all which could relate to fostering academic achievement.

In his second postulate, Astin (1984) recognized that involvement operated on a continuum. Students could be involved in a variety of objects during any given time, to a variety of degrees. This postulate suggested that the college environment was diverse, and different settings within that environment would require different demands of students. The second postulate also emphasized that students possessed limited physical and psychological energy, and therefore, would allocate their involvement and expenditure of this energy as they saw fit.

The third postulate of his framework identified that involvement could be both qualitative and quantitative, and therefore, could be measured in several ways. This characterization of involvement, although seemingly straightforward, is important to consider. It identifies that

involvement in college life may be differentially impactful on student success, given that similar involvements may differ in terms of quality among students. For example, a student who dedicates a large portion of time to studying versus a student who does not, does not necessarily indicate which student will perform better academically. Therefore, through his student involvement framework, Astin (1984) introduced the idea that the quality of college involvement was also important for student success.

Finally, Astin (1984) considered the fourth and fifth postulates of his theory as the key postulates since they worked to link the concept of involvement to student outcomes and institutional quality in practice. Stated plainly, these last two postulates considered together suggested that programs or policies that fostered student involvement would be more effective in delivering desired college student outcomes.

Contributions of College Student Involvement Framework. Astin's (1984) work was influential in that it provided a focused framework for modeling the relationship between behaviors in the institutional environment and persistence outcomes. Its simplicity allowed for easy measurement and testing, which in turn contributed to its popular adaptation and use (Berger et al., 2012). Through this contribution, researchers of college student success have been able to clearly delineate and study how specific behavioral aspects of the college experience, such as being involved in athletics, social organizations, or working closely with faculty and other peers, is connected to college student learning, development, and matriculation.

However, Astin's (1984) work was also important because it outlined specific characteristics or conditions of both students and their behaviors in college that would affect persistence. Astin (1984) recognized that college students possessed a limited amount of physical and psychological energy to commit to involvement in collegiate life, and therefore, were

required to make determinations for which objects, relating narrowly or broadly to the enterprise of college, they allocated this energy towards. Additionally, Astin (1984) identified that the quality of involvement could vary widely, and that the potential impact of an involvement on a college student's potential persistence and success was dependent not only upon the allocation of time they put into the object, but also the effort they invested into enhancing the quality of that involvement. These contributions implied that college students as actors in the institutional environment maintained an active role in their development through deciding how to allocate their energy and effort to a variety of involvements that may be, depending on the characteristics of quality and quantity, and degrees of specificity and generalizability to the academic experience, differentially predictive of college student persistence and success.

Synthesis: Integration and Involvement Frameworks

Given the prominence of both Tinto (1975) and Astin (1984) in the higher education literature, several researchers have discussed the conceptual similarities between college student integration (Tinto, 1975) and college student involvement (Astin, 1984). Pascarella and Terenzini (1991) noted that both theories involved similar dynamics, addressing the nature of how students connect with the collegiate environment, and how these interactions influenced student persistence or lack thereof. Milem and Berger (1997) incorporated aspects of both approaches in a study to examine this question directly. They asserted that college student involvement (Astin, 1984) could act as an important facilitator for student integration (Tinto, 1987). In turn, they felt the relationship between student perceptions and institutional commitments modeled in Tinto (1975) might act to influence college student behavioral involvement (Astin, 1984).

In their study, Milem and Berger (1997) tested a modified model of student persistence for first-year college students, hypothesizing that student entry characteristics would influence an initial period of involvement behavior during the fall semester which would in turn influence student perceptions of the institutional environment moving into the second semester. This behavior-perception cycle would then influence subsequent involvement behaviors in the spring semester, ultimately predicting departure or persistence at the end of the first year. Milem and Berger (1997) posited that this hypothesized perception-behavior cycle throughout a student's first year might in part reflect Tinto's (1975) longitudinal process of academic and social integration.

To test their model, Milem and Berger (1997) collected data at three different times from first-year college students at a highly selective private regional university (n = 718). Data were collected in August before school, during the fall semester, and during the spring semester. They measured seven different independent variables (see Table 1) which were presented as their hypothesized causal sequence of attrition. The dependent variable, persistence, was a composite of three items asking students about the likelihood of enrolling in the fall semester for their second year. Overall, the variables measured through their sequences of 1-7 represented the behavior and perception cycle hypothesized to occur throughout a student's first year in college.

Table 1

Hypothesized Causal Sequence of Attrition, Independent Variables for Milem and Berger (1997)

Sequence position	Variable	Subscales
1	Student Background	• Sex • Racial/Ethnic Origin • Initial Program of Enrollment • Academic Aptitude • High School Achievement • High School Extracurricular Involvement • Informal Contact with Faculty

		• Parents' Combined Annual Income • Parents' Level of Formal Education • Student's Highest Expected Academic Degree • Choice Level for Attending the University • Confidence in Enrollment Decision
2	Initial Institutional Commitment	• Value Ascribed to Graduating
3	Mid-fall Behavior/Involvement	• Involvement with Faculty • Involvement with Peers • Organized Activity • Informal Exercise and Recreation • Traditional Social Activities • Activist Involvement • Nonengagement With the University • Academic Nonengagement
4	Mid-fall Perceptions	• Institutional Support • Peer Support
5	Spring Behavior/Involvement	• Involvement with Faculty • Involvement with Peers • Organized Activity • Informal Exercise and Recreation • Traditional Social Activities • Activist Involvement • Nonengagement With the University • Academic Nonengagement
6	Academic & Social Integration	• Intellectual Development • Quality of Peer Group • Faculty Interaction
7	Mid-spring Institutional Commitment	• Value Ascribed to Graduating • Enrollment Satisfaction

Milem and Berger (1997) identified several key findings. First, they found that students' involvement or noninvolvement in their undergraduate experience in the fall did significantly influence their perceptions of institutional and peer support in spring. Specifically, early involvement with peers in the fall semester was shown to be a significant predictor of positive

perceptions of peer and institutional support in the spring semester. Second, Milem and Berger (1997) also found evidence that early involvement with faculty also seemed to predict future involvement in a number of areas of institutional life, like taking part in future organized activities, more future involvement with faculty, and other general social activities. Third, they also found a positive association between social integration and institutional commitment, indicating that the more integrated students felt they were with the institutional community the more committed they were to the institution they were enrolled in. They did not find any association between academic integration and institutional commitment.

Through developing a model of college student persistence that incorporated aspects of both college student integration (Tinto, 1975) and college student involvement (Astin, 1984), Milem and Berger (1997) identified that college student integration and college student involvement (Astin, 1984) were not competing but rather complimentary frameworks for understanding college student persistence. Milem and Berger (1997) found strong empirical support for the relationship between student involvement behaviors and students' perceptions of their university experience, what they described as a behavior-perception cycle. These findings indicated that initial goal commitments (Tinto, 1975) could influence early involvement in college life, and these early involvements influenced how students perceived the institutional environment. These perceptions of support moving into the second semester of a student's first year had the power to alter future behavior, potentially influencing persistence.

Both Tinto (1975) and Astin (1984) have had a substantial impact on the course of higher education scholarship. Like Tinto (1975), Astin's (1984) college student involvement framework continues to be widely used across many areas of higher education research for examining the college student experience (see Mayhew et al., 2016). The involvement concept advanced by

Astin (1984) was also foundational to the development of the college student engagement framework (Kuh, 2001), the dominant contemporary framework for examining college student persistence, development, and educational attainment in higher education research today (Trowler, 2010).

College Student Engagement

Like college student involvement (Astin, 1984), college student engagement research also examines student success outcomes through the constructs of quality of effort and involvement in collegiate life. However, college student engagement (Kuh, 2001) refined Astin's (1984) examination of the behavioral dimensions of the college student experience further by identifying a specific set of involvements in college life that were considered educationally purposeful (Hu & Kuh, 2002). Hu and Kuh (2002) suggested these educationally purposeful activities were characterized by their relationship to the amount of time students' study, their interactions with faculty members and peers related to substantive topics, as well as how these activities facilitated the use of institutional resources (p. 555). In addition to this refined focus on which activities students dedicated time and energy to, the college student engagement framework also considered to some degree how the institutional environment might influence student participation in these activities (Kuh et al., 2006) and the role and impact of undergraduate teaching practices on college student success (Chickering & Gamson, 1987).

Taken together, the college student engagement framework posits that college students' involvement in educationally purposeful activities, in concert with the use of high impact teaching practices (Chickering & Gamson, 1987) in the classroom, all within an institutional environment that is perceived as "inclusive and affirming," will yield higher levels of college student engagement, enhancing the overall probability of student success (Kuh, 2001). Kuh

(2009) described this framework broadly as “the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities” (p. 683).

College Student Engagement and Persistence. A continually growing body of research has adopted this framework, and several studies have found that higher levels of college student engagement is linked to several positive student outcomes, including college student satisfaction, academic achievement, and social engagement (Trowler, 2010). One study that empirically examined the link between college student engagement and first year college student persistence was Kuh et al. (2008). This study examined whether college student engagement had a significant impact on first-year students’ grade point averages and the probability of these students returning to college for their second year. Kuh et al. (2008) also examined whether college student engagement had general or conditional effect on individuals depending on their race/ethnicity and prior academic achievement.

In their study, college student engagement was measured using data collected from the National Survey of Student Engagement (NSSE) (Kuh, 2001). The NSSE is an annual survey of undergraduate college students that measures college student engagement through assessing several measures related to “student participation in educationally purposeful activities” (Kuh et al., 2008, p. 544). Some of the subscales used in this complex instrument include students’ college activities, educational and personal growth, and their opinions about their school. Kuh et al. (2008) created a data sample from a set of 18 schools that had completed the NSSE at least once between 2000 and 2003. Their sample was intentionally selected to provide an adequate number of respondents and reasonable racial and ethnic diversity among participants.

In addition to the data collected through the NSSE, the researchers also obtained student background and prior academic achievement information through permission to access participant records from the ACT and the College Board. The dependent variable, college student persistence, was measured through student academic and financial aid information obtained from the participating institutions. These records indicated whether a student had maintained enrollment from the first year into the second year of college. Overall, there was a complete set of data for 6,193 undergraduate students.

In their analysis, Kuh et al. (2008) found that college student engagement had a small but statistically significant positive effect on first-year college students' grades, and a significant positive effect on college student persistence from the first year of college to the second. They also found that college student engagement had a compensatory effect for individuals who entered college with lower initial levels of academic achievement. These particular college students were more positively affected by engagement in educationally purposeful activities than their peers who entered with higher levels of prior academic achievement. The researchers also suggested several of their other findings on academic aptitude and college student demographics were surprising. They found that college students with high ACT scores and high first-year college grades were less likely to return to the same institution the next year when compared to other individuals in the sample. Also, college students from the highest income bracket were found to be less likely to return for a second year when compared to individuals from other brackets.

Synthesis: College Student Integration, Involvement, & Engagement

The college student engagement framework (Kuh, 2001), when compared to college student integration (Tinto, 1975) and college student involvement (Astin, 1984), advanced a

more focused model of the college experience that considered how specific activities within particular settings in the institutional environment are linked to college persistence. Whereas Astin (1984) conceptualized involvement as the physical and psychological energy students invested into specific objects related to college life, Kuh (2001) refined this idea further by framing these objects through specific activities that have been empirically linked to college student success outcomes like academic achievement, satisfaction, persistence, and social engagement. Also, although Astin (1984) was first to articulate the qualitative characteristic of college student involvement in college life, Kuh (2001) specifically suggested that perceptions of the institutional environment might also affect this quality, in line with the ideas of Tinto (1975) that institutional characteristics influenced how students experienced involvement, which could enhance or diminish student integration.

Taken together, these three primary frameworks of college student persistence have contributed greatly to our understanding of college student attrition. First, they indicate that college student persistence or departure is the outcome of a longitudinal behavior-perception cycle (Milem & Berger, 1997). This behavior-perception cycle is bidirectional, that is, student background characteristics, such as goal commitments and institutional commitments, may influence early involvements (Kuh, 2001; Tinto, 1975), but these involvements will also subsequently influence future perceptions and involvement behaviors (Milem & Berger, 1997). This behavior-perception process in turn can frustrate or support student integration into the institutional environment (Tinto, 1975). A second important contribution of these frameworks is that they identified that college students themselves are incredibly important actors in their own development, since they decide how to allocate their limited psychological and physical energy

to involvement objects (Astin, 1984) or educationally purposeful activities (Kuh, 2001), which can vary in terms of the degree to which they help foster college student persistence and success.

Integration, Involvement, Engagement, and Belonging Considered

When considered in relation to college student sense of belonging research, one primary and distinguishing feature of these three frameworks is their research focus. Whereas college student integration (Tinto, 197), college student involvement (Astin, 1984) and college student engagement (Kuh, 2001) primarily examine the relationship between college student behavioral involvement and matriculation, research on college student sense of belonging is focused on examining a force that underlies and influences student energy and effort towards these behaviors, conceptualized as college student motivation (Guiffrida 2006; Guiffrida et al., 2013; Tinto, 2017). These are distinct areas of focus as Strayhorn (2018) suggested, however, they also represent complimentary bodies of research, in that each area of research works to advance our understanding of a different aspects of college student persistence. Specifically, college student sense of belonging research represents an opportunity to understand how the fulfilment or constraint of a psychological need to belong is connected to these concepts like integration (Tinto, 1975), involvement (Astin, 1984), and engagement (Kuh, 2001) in college life.

Therefore, the next section of this chapter is concerned with understanding psychological needs and their relationship to motivation. This section focuses on a review of self-determination theory (Deci & Ryan, 1985), a widely used and validated psychological needs-based motivational framework (see Ryan & Deci, 2017). This research is reviewed to show how experiencing a sense of belonging is connected to a larger motivational framework that impacts college student success, as well as to outline the foundational research from which the study of belonging in the educational context was derived.

Self-Determination Theory (SDT): Motivation as Psychological Need Fulfillment

The energizing effort that influences students' behavioral choices in the college environment can be broadly understood as student motivation (Tinto, 2017). Human beings experience motivation when they are energized or activated towards a specific end (Ryan & Deci, 2000a), and as psychologists Richard Ryan and Edward Deci (2000b) note, "motivation is highly valued because of its consequence: Motivation produces" (p. 69). Self-determination theory (SDT) (Deci & Ryan, 1985) conceptualizes motivation as a result of psychological need fulfilment or constraint, identifying that differing levels of psychological need support or hinderance influences the type of motivation an individual experiences towards a behavior or task. This differentiation of the motivation concept is one of the unique contributions of SDT. Whereas prior motivational theories tended to treat motivation as a unitary concept, thought about only in terms of amount of strength, SDT posits that human beings can experience motivation in terms of differentiated "types, qualities, and orientations" as a functional result of psychological need fulfillment (Ryan & Deci, 2017, p. 13).

Self-determination theory is considered a metatheory of human behavior and development, as it cuts across different traditions of psychology including social, personality, developmental, clinical, neuro, and behavioral economics (Ryan & Deci, 2017). SDT is constructed of six individual mini-theories that each address different characteristics of this psychological needs-based motivational framework. This review of SDT focuses on three of these mini-theories, basic psychological needs theory (BPNT), cognitive evaluation theory (CTE), and organismic integration theory (OIT), and examines how they relate to college student experiences. I first review BPNT to explore the nature of psychological needs and to define the three essential psychological needs put forth in SDT. Second, I review how SDT differentiates

two primary types of motivation, intrinsic and extrinsic motivation, as explained through CTE and the concept of "the locus of causality" (deCharms, 1968). I also review OIT which is concerned primarily with extrinsic motivation. OIT helps differentiate types of extrinsically motivated behaviors. It also frames how psychological need fulfillment, and specifically the need for belonging, termed relatedness in SDT, can influence a process of internalization that helps individuals experience extrinsically motivated behaviors as more autonomous and self-determined.

This section concludes by examining representative studies that have used the SDT framework in the education domain. I pay particular attention to one of the earliest studies examining psychological needs in the K-12 environment (Deci et al., 1981), one of the earliest studies that focused specifically on the relatedness need (Ryan et al., 1994), and two studies that have employed a SDT framework for examining college student persistence (Vallerand & Bissonnette, 1992; Guiffrida et al., 2013).

Basic Psychological Needs Theory

Self-determination theory (Deci & Ryan, 1985) posits that as functioning organisms, human beings have both physiological needs and psychological needs that must be met in order to develop and function optimally (Ryan & Deci, 2017). The satisfaction of these needs leads to vitality, vigor, and wellbeing, whereas the deprivation of these fundamental needs can lead to degraded forms of development and growth. As Ryan and Deci (2000b) note, understanding the physical needs of the human organism is somewhat intuitive compared to relevant psychological needs. Without oxygen to breathe, and the energy and nutrients to function through the consumption of food, the human body begins to fail. However, researchers in the field of psychology over time have considered and explored the idea that human beings also have

fundamental psychological needs that must be met through the social environment in order to develop and thrive (Baumeister & Leary, 1995; Deci & Ryan, 1985; McClelland et al., 1953; Murray, 1938).

Basic psychological needs theory (BPNT) is one of the six sub-theories that make up the metatheoretical framework of self-determination theory (Deci & Ryan, 1985). BPNT posits that there are three fundamental psychological needs that must be fulfilled for human beings to function optimally; these needs are categorized as autonomy, competency, and relatedness (Deci & Ryan, 1985). The autonomy need refers to the psychological need for an individual to perceive themselves as the "origin source" of their behavior (Deci & Ryan, 2004). "When autonomous, individuals experience their behavior as an expression of the self, such that, even when actions are influenced by outside sources, the actors concur with those influences, feeling both initiative and value with regard to them" (Deci & Ryan, 2004, p. 8). The competence need reflects the human need to feel effectance and mastery, as it enhances individuals' feelings of being able to operate "effectively in important life contexts" (Ryan & Deci, 2017, p. 11). Completing homework is one example of an activity that may satisfy the competency psychological need. A student who sees homework as connected to their goals of learning and doing well in school does not see completing a homeworking assignment as a controlling experience, but rather as an opportunity to satiate the competency need as a student and dedicated learner.

The final need identified in self-determination theory is the need for relatedness. Ryan and Deci (2017) define this need as follows:

> Relatedness refers to both experiencing others as responsive and sensitive and being able to be responsive and sensitive to them – that is feeling connected and involved with

> others and having a sense of belonging… Relatedness is experienced both in being cared about and in caring. (p. 86)

Deci and Ryan (2004) emphasize that relatedness is not about being identified by a specific label or feeling affiliated with a specific group "but instead concerns the psychological sense of being with others in secure communion or unity" (p. 7). Relatedness is about experiencing a sense of mutuality in one's relationships or memberships, that an individual is being cared for by another or others and is contributing care in return. It is important to note that the concept of relatedness in self-determination theory, and the concept of belonging in other works of psychology (Baumeister & Leary, 1995; Maslow, 1954) address the same psychological need. Ryan and Deci's (2017) elaboration of SDT now connects directly to the work of Baumeister and Leary (1995) who focused exclusively on belonging, arguing that relatedness includes feeling a sense of belonging need satisfaction. As Ryan and Deci (2017) summarize, "People feel relatedness most typically when they feel cared for by others. Yet relatedness is also about belonging and feeling significant among others" (p. 11). Thus, relatedness and belonging refer to the same phenomenon.

Within BPNT all three needs are essential to human functioning, however autonomy supports play a significant role in facilitating support for relatedness and competence, and therefore is often a focus of SDT research. As Ryan and Deci (2017) explain, this focus is not because autonomy is more important than either competency or relatedness, but because contexts that support autonomy generally foster situations where individuals can optimize strategies for satiating other needs. Therefore, autonomy support is considered a facilitator of competence and relatedness need support. Additionally, BPNT also indicates that the individual satisfaction of autonomy, competence, and relatedness needs tend to be positively associated with one another.

They consider these needs interdependent and that the satisfaction of one need is generally correlated with the support and satisfaction of the others. As Ryan and Deci state (2017), “in full functioning, all three needs are mutually implicated and tend to be very highly correlated. Put metaphorically, well-being is like a three-legged stool; pull one of these supports and the stool will fall” (p. 250).

Therefore, basic psychological needs in SDT are fundamentally connected to how we function as human actors in the social environment, and their satisfaction is foundational for optimum forms of human behavior and wellbeing (Ryan & Deci, 2017). I next review cognitive evaluation theory (CET) and the concept of the locus of causality (deCharms, 1968) to explain the difference between SDT’s two primary forms of motivation, intrinsic and extrinsic motivation.

Intrinsic and Extrinsic Motivation

According to SDT, motivation exists in two primary forms, intrinsic motivation and extrinsic motivation. Intrinsic motivation, as explained by CTE, can be understood as performing an activity or behavior because of the inherent satisfaction one experiences derived from that activity or behavior. For example, if an individual enjoys the experience of gardening, they conduct that work for the inherent satisfaction derived from it, representing an intrinsically motivated act. Extrinsic motivation and its varying types, explained by the sub-theory of organismic integration theory (OIT), is usually contingent upon external regulations and rewards outside of the general satisfaction one might enjoy from an activity or behavior. For example, if an individual engages in gardening because they will be paid for that labor, and they do not necessarily enjoy the activity, their motivation is in part extrinsically motivated, since that effort is instrumentally regulated and driven primarily by an expected external control or reward. The

distinction between intrinsic and extrinsic motivation has been classically defined as follows, "Intrinsic motivation is noninstrumentally focused, instead originating autotelically from satisfactions inherent in action, whereas extrinsic motivation is focused toward and dependent on contingent outcomes that are separate from the action *per se"* (Deci & Ryan, 2004, p. 10).

The autotelic nature of intrinsic motivation, or the lack thereof for extrinsic motivation, is explained in SDT through the concept of the locus of causality (deCharms, 1968). Locus of causality identifies where an individual perceives the origin of their behavior to be, whether they perceive themselves as the origin of their behavior, or as "a pawn of heterogenous forces" (Ryan & Connell, 1989, p. 749). If the locus of causality is perceived to be external to the individual, then behavior is experienced as externally regulated, whereas an internal locus of causality leads individuals to perceive their behavior as internally regulated. According to Deci and Ryan (1985), an internal locus of causality underlies intrinsic motivation and leads to more self-determined behavior, whereas an external locus of causality and extrinsic motivation leads to less self-determined or less autonomous behavior. For example, in the case of higher education, if a student attends college solely because their parents required it, the motivation to be in school and to succeed would be considered more extrinsic since their behavior is being regulated by the desires of the parents and not the student, an external locus of causality. Alternatively, a student who enrolls in college of their own volition will experience intrinsic motivation towards the task and will see the choice to attend school as a self-determined choice, an internally regulated decision, sprouting from an internal locus of causality.

The concept of the locus of causality highlights the attributions individuals make regarding the sense of volition experienced between intrinsic and extrinsic motivation, which results from the satisfaction of all three psychological needs. While experiencing autonomy need

satisfaction is central in this process, Ryan and Deci (2017) note that the satisfaction or constraint of all three needs influence the extrinsic and intrinsic distinction. Furthermore, among different types of extrinsic motivation, need satisfaction can influence an internalization process where less self-determined forms of extrinsic behavior can be experienced as more autonomous or self-determined over time. I turn to explaining this internalization process and the different types of extrinsic motivation next. This process of internalization, as a result of psychological need satisfaction, is crucially important to human functioning in environments where developmental behaviors and tasks are often externally imposed on individuals, such as institutionalized educational contexts.

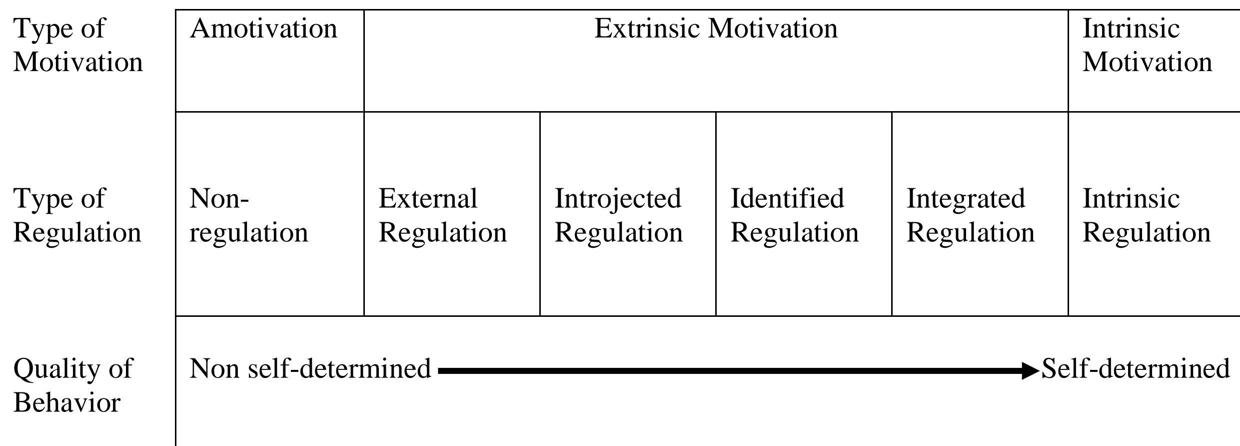
Internalization and the Differentiation of Extrinsic Motivation

Many of the behaviors individuals engage in are extrinsically motivated, that is, individuals do not engage in them because they are intrinsically interesting and derive satisfaction from them but rather because they are instrumentally regulated and valuable, and in part are often the result of the cultural process of socialization (Ryan & Deci, 2017). Organismic integration theory (OIT) provides a framework for understanding how individuals may come to experience these extrinsically motivated behaviors as more autonomous through a process of internalization. Ryan and Deci (2017) describe internalization as “the process of taking in values, beliefs, or behavioral regulations from external sources and transforming them into one’s own” (p. 182). They argue that internalization represents a natural growth process, that human beings are naturally predisposed to “develop an ever more elaborated and unified sense of self” through continuous active learning, what Deci and Ryan (2004) describe as a balancing act of autonomy (inner organization and self-regulation) and homonomy (integration of oneself with others) (p. 5).

To understand how the internalization process functions it is important to review the different types of extrinsic motivation. In contrast to intrinsic motivation, extrinsic motivation exists in different types along what Ryan and Deci (2017) describe as a continuum of relative autonomy or self-determination, where individuals experience the regulation of their behavior from relatively controlled and non-self-determined to relatively autonomous, self-regulated, and self-determined. This continuum is outlined in 1 below (see Figure 1).

Figure 1

Continuum of Self-Determination



Type of Motivation	Amotivation	Extrinsic Motivation				Intrinsic Motivation
Type of Regulation	Non-regulation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Quality of Behavior	Non self-determined → Self-determined					

Note. This figure outlines a continuum of self-determination, outlining motivation types and behavioral regulation.

Aside from amotivation, which represents non-regulated behavior, and extrinsic motivation, where an individual’s behavior is dictated completely by external controls, there are three main types of internalized extrinsic motivation. The first type of partially internalized extrinsic motivation is experienced as introjected regulation. Introjected regulation characterizes an individual who has partially internalized their motivation for a behavior, but that behavior is not fully accepted and is controlled by self-conscious emotions. Ryan and Deci (2017) note that oftentimes individuals who are “motivated by guilt, shame, contingent self-esteem, and the fear of disapproval” (p. 14) are experiencing introjected regulation. Introjected regulation and its

consequent behavior differ from externally regulated motivation, in so far as some part of the introjected behavior is experienced as being semi-internally controlled. An example of this is an individual who is behaving out of a personal feeling of guilt.

Identified regulation is the next on the continuum of extrinsically motivated behaviors and represents conditions where individuals have identified with and accepted the value of the extrinsically motivated behavior. For example, consider living in a community that values recycling. If an individual recycles to avoid a feeling of guilt or shame from their peers, they are acting for introjected reasons. An individual that recycles because they acknowledge and value that it is better for the environment is an example of someone engaging in more identified behavior. They have acknowledged that there are potential positive benefits for that action although their behavior is still extrinsically motivated by an instrumental regulation or the expectations of others.

The final type of extrinsic motivation is when individuals experience integrated regulation. Integrated regulation is the most self-determined and internalized version of the extrinsic motivation types. Integrated regulation, which is fairly rare, represents an individual who has fully integrated the values and beliefs of the extrinsically motivated behavior. These types of motivation are not static, and in fact, individuals may have different motivations for conceptually related tasks, and cross fluidly between and among different levels of motivation and behavioral regulation depending on not only the task at hand, but the domain in which that task exists (Vallerand, 1997). For example, a student may be generally motivated in educational activities, but less motivated towards specific topics (e.g., mathematics) or specific tasks (e.g., taking exams).

Organizational integration theory (OIT) helps frame how the social environment, through psychological need satisfaction, can affect motivation, the regulation of behavior, and the internalization of extrinsically motivated tasks. For example, those who are externally motivated often feel controlled by others and they show low levels of competence need satisfaction. However, as extrinsic motivation is internalized, as individuals "take in" a value or behavioral regulation (Ryan & Deci, 2000), individuals tend to perceive their behaviors as more self-determined. Integration, as opposed to internalization, represents the point at which behavioral regulation emanates from an individual's sense of self. Greater internalization of extrinsic motivation represents greater psychological need satisfaction, and has been found to lead to a number of positive outcomes for individuals including "behavioral effectiveness, greater volitional persistence, enhanced subjective well-being, and better assimilation of the individual within his or her social group" (Ryan & Deci, 2000, p. 73).

Summary of SDT

Taken together these SDT sub-theories, cognitive evaluation theory, organismic integration theory, and basic psychological needs theory, provide a comprehensive explanation for how the social environment influences different forms of effort and persistence through psychological need satisfaction or constraint (Ryan & Deci, 2000b). In SDT, the satiation of basic psychological needs occurs through individuals' interactions within the social context, positioning our lived experiences as the conduits for crucial psychological nutrients which influence different forms of motivation and behavioral regulation. High psychological need satisfaction leads to higher levels of intrinsic motivation or highly internalized extrinsic motivation which is connected to optimum human functioning. Conversely, if individuals experience their basic psychological needs as being thwarted or constrained in the social context,

individuals may experience less self-regulated behavior, more extrinsic motivation or introjected behavioral regulation, and potentially even psychological harm (Ryan & Deci, 2017).

Also important for the study of belonging in education, psychological need fulfillment can enhance the internalization process, which optimizes an individual's ability to move from more externally regulated behavior towards internally regulated behavior. Intrinsic motivation and the internalization of extrinsic motivation, which leads to optimum forms of self-regulated behaviors, are directly affected by the level of autonomy, competency, and relatedness need support individuals experience. Therefore, in contexts where external controls are often imposed on individuals, for example in the domains of education or religion, support for autonomy, competency, and relatedness can help individuals better internalize these controls for better functioning. Having reviewed this framework, I now turn to exploring several examples of how SDT has been used in educational research.

SDT in K-12 Educational Research

One of the developmental domains that has received a considerable amount of attention in SDT scholarship is K-12 education. Niemiec and Ryan (2009) note this is in part because schools and classrooms represent contexts in which external controls are regularly imposed on students, often under the belief that these controls promote learning and development. Therefore, now that the framework of SDT has been reviewed, I explore several representative studies of SDT research in the educational context.

Autonomy Support in the Classroom. An early study examining psychological need satisfaction in the classroom environment was conducted by Deci et al. (1981). They explored how adults' orientations toward control or autonomy in working with children in the classroom context influenced student intrinsic motivation and feelings of competence. The researchers

hypothesized that students who experienced autonomy-supportive teaching environments would be more intrinsically motivated and more self-confident than those students in classrooms where teachers were more oriented towards control. To test this hypothesis, the researchers developed a questionnaire completed by teachers that was comprised of eight vignettes of typical problems that students have in school. Each vignette was followed by four possible solutions to dealing with the student problem, with each answer representing either a highly controlling adult response, moderately controlling response, moderately autonomous response, and highly autonomous response to the situation. The teachers then rated the responses to each problem behavior on a scale of one to seven indicating how appropriate they felt that particular response was to the situation. This questionnaire was distributed to a sample of 68 teachers in grades K-6 from six different schools in two school districts.

For approximately half of the teachers in the study (n = 35), data were also collected from their students at two different times throughout the school year. These students (n = 610) completed an intrinsic motivation scale (Harter, 1981) and a perceived competence scale (Harter, 1982) in October and May of that school year. Intrinsic motivation was measured through five subscales, three of which measured students' preferences for curiosity, challenge and independent mastery attempts, and two of which measured independent judgement and a student's own criteria for success and failure. The perceived competence scale that was used also contained four subscales; general feelings of self-worth (e.g., self-esteem), perceived cognitive competence, perceived social competence, and perceived physical competence.

Midway through the year students also completed a questionnaire that described their classroom and teacher (Origin Climate Questionnaire; deCharms, 1976). This questionnaire

provided a score reflecting children's perceptions that the teachers were either autonomy-oriented or control-oriented.

Using the responses from the teacher questionnaire, Deci et al. (1981) assessed teachers' orientations towards control versus autonomy, rating them along a continuum of controlling versus autonomy supporting. Next, the researchers investigated how these teacher orientations affected students' intrinsic motivation and perceived competence. Deci et al. (1981) hypothesized that since the children completed the intrinsic motivation and perceived competence questionnaires at two times, both in October and May, a change in intrinsic motivation and perceived competence over that time would be correlated with teacher's orientations towards autonomy support versus control. However, Deci et al. (1981) found no significant change of scores at all in any of the children's subscales over time. Rather, they found that by two months into the school year, in October, a pattern of "significant relationships" had been established that remained constant throughout the seven-month timeframe.

The researchers found that teacher orientation was significantly correlated with all three intrinsic motivation subscales ($p < .01$) at both time frames. As previously described, these subscales included students' preferences for challenge, their curiosity, and their preference for independent mastery attempts in learning (see Harter, 1981, for further explanation of mastery attempts). As Deci et al. (1981) notes, "Teachers who were more autonomy oriented had children who were more intrinsically motivated; teachers who were more control oriented had children who were less intrinsically motivated" (p. 647). In addition to this the researchers also investigated the relationship between teacher autonomy/control orientations and students perceived competence, measured across the four subscales of general self-worth, cognitive competence, social competence, physical competence. Deci et al. (1981) found that teachers who

were autonomy supportive generally fostered higher perceptions of general self-worth and cognitive competence among their students, and to some extent social competence.

These preliminary findings by Deci et al. (1981) suggested that autonomy-oriented teachers in a K-12 educational setting, versus controlling teachers, seemed to significantly influence students' intrinsic motivation as well as how students' felt about their abilities in school. Importantly, these findings also lent empirical support to the psychological needs-based motivational framework that was emerging with the concurrent development self-determination theory at that time. Deci et al. (1981) is a strong and early example of educational research that found support for the suggestion that the satiation of the psychological need for autonomy through interactions in the social context (in this case teachers in educational classrooms) helped enhance not only intrinsic motivation, but also psychological wellbeing (i.e., self-esteem).

Relatedness Support and School Functioning. Niemiec and Ryan (2009) have also suggested that the relatedness need is especially important in educational contexts that impose various forms of external regulation, given that relatedness is important for the internalization process, a process discussed earlier in this section where individuals begin to accept, as their own, the regulatory values of those of whom they "feel, or want to feel, connected, and from contexts in which they experience a sense of belonging" (Niemiec & Ryan, 2009, p. 139). It has been proposed in SDT research, that relatedness need fulfillment in the educational context enhances student perceptions of teacher respect, support, and value, and that students who experience relatedness need fulfillment in the educational context experience identified and integrated behavioral regulation for the persistence required to succeed in school (Niemiec & Ryan, 2009).

One early study that provided evidence supporting this proposition was Ryan et al. (1994), which examined how relatedness need satisfaction was connected to motivation and school functioning. This study examined how student perceptions of their relationships with their teachers, parents, and friends affected several variables related to school functioning, including positive coping, student perceptions of self-regulated behavior, academic engagement, and the general beliefs students held about their own capacity to do well in school. Drawing on the tenets of SDT, the researchers hypothesized that students who experienced positive relationships with teachers and parents would experience positive autonomy, engagement, coping, and perceived control over academic outcomes. They also hypothesized that experiencing relatedness need fulfillment through these teachers and parents would play an important role in helping students internalize externally regulated behavior for school and enhance students' positive attitudes.

In addition to examining relationships with adults, Ryan et al. (1994) also examined the impact of relatedness in peer-to-peer relationships, considering how students' connections with friends might influence school functioning. They hypothesized that relatedness needs satisfaction with peers would play either a "supportive or obstructive" role in terms of school motivation and adjustment, but that role would depend upon the "specific value system in one's friendship network" (p. 232). Then, they also examined students who felt they relied on "no one" when facing school or emotional concerns in order to investigate how a lack of connection might influence school functioning. The authors hypothesized that these students would be at risk for low self-esteem and maladjustment.

To test these hypotheses, the researchers collected self-reported survey data from students enrolled in 7th and 8th grade at a public middle school in a suburban location (n = 606). There were 154 boys and 156 girls in the seventh-grade sample, and 164 boys and 132 girls in the

eighth-grade sample. In their study, data were collected using a questionnaire that measured variables relating to three broad categories: 1) representations of relationships, which assessed how students' perceived their relationships with parents, teachers, and peers, 2) school-related functioning, which was assessed through several subscales measuring students' academic coping, motivational orientations towards schoolwork, academic engagement and disaffection, and perceived control, and 3) self-esteem, assessed along two subscales of global self-esteem and identity integration. Given the extensive number of variables included in this study, the measures used by Ryan et al. (1994) have been summarized in the table below (see Table 2).

Table 2

Measures from Ryan et al. (1994)

Category 1: Representations of relationships
Description: Explored how students perceived their relationships with their parents, teachers, and peers.
Variable: Felt Security Description: Measured the affective component of attachment. Measurement Instrument: Inventory of Adolescent Attachments (IAA; Greenberg, 1982)
Variable: Emotional Utilization Description: Measured the extent to which adolescents felt they were able to rely on a target figure. Measurement Instrument: Inventory of Adolescent Attachments (IAA; Greenberg, 1982)
Variable: School Utilization Description: Measured the extent to which adolescents relied on target individuals for specific school environment tasks. Measurement Instrument: Three items intended to parallel Greenberg (1982)
Variable: Emulation Description: Measured the degree to which adolescents emulated or strongly identified with target figures. Measurement Instrument: Five items (Ryan et al., 1994)
Category 2: School-related functioning
Description: Assessed students' academic coping, motivational orientations towards schoolwork, academic engagement and disaffection, perceived control, and capacity and control beliefs.
Variable: Academic Coping

Description: Measured students coping with academic failure along four dimensions; positive coping, denial, anxiety, and amplification.
Measurement Instrument: Academic Coping Inventory (Tero & Connell, 1984)

Variable: Motivational Orientation
Description: Measured students' motivational orientation with regard to schoolwork which assessed four styles of behavioral regulation.
Measurement Instrument: Self-Regulation Questionnaire-Academic (SRQ-A; Ryan & Connell, 1989)

Variable: Academic Engagement
Description: Measured the degree to which students felt positive affect towards school and actively involved themselves.
Measurement Instrument: Academic Engagement Versus Disaffection (Wellborn & Connell, 1987)

Variable: Perceived Control
Description: A summary variable that represented beliefs that optimized intentionality and sense of control through weighing subscales of strategy, capacity, and general control. Items Each of these subscales was measured along three
Measurement Instruments: Perceived Control (Skinner et al., 1990). Items for each subscale (strategy beliefs, capacity beliefs, general control beliefs) was measured along three constructs (effort, ability, and powerful others).

Category 3: Self-esteem

Description: Assessed components of self-evaluation and global self-esteem.

Variable: Global Self-Esteem
Description: Measured general perceptions of self-worth.
Measurement Instrument: The Multidimensional Self-Esteem Inventory (MSEI; O'Brien & Epstein, 1988)

Variable: Identity Integration
Description: Measured an individual's sense of stability, cohesiveness, and purpose over time.
Measurement Instrument: The Multidimensional Self-Esteem Inventory (MSEI; O'Brien & Epstein, 1988)

Through simultaneous regression analysis, Ryan et al. (1994) found that generally those students who were more secure in their relationships with teachers and parents and were more capable of utilizing these relationships towards functioning in school, reported more positive attitudes and higher levels of motivation towards their education than other students. In particular, emulation of parents and teachers was found to be positively associated with school performance variables like motivation and school adaption. Variables representing student's

relatedness with peers were generally unrelated to school motivation or school adaption, although emulation of friends was found to be negatively associated with student self-esteem.

In order to explain why student developmental relationships with teachers and parents were impactful for school functioning, the researchers posited that the positive relationship between the emulation of parents and teachers and school-related performance and motivation, was potentially related "with the internalization of the values they transmit" (Ryan et al., 1994, p. 244). That is, the satiation of the relatedness need, specifically with these adult figures, helped students internalize and experience more intrinsic forms of academic motivation and self-regulated academic behavior. Ryan et al. (1994) also pointed out that these findings suggested that the "enterprise of school" was not purely related to cognition, for example how intelligent students were, but also how developmental relationships influenced student motivation and behavioral engagement with the developmental demands of the school environment (p. 244). Their findings indicated that in the K-12 context students functioned more optimally when their relationships with teachers were perceived as secure and when students were comfortable relying on teachers for support towards engaging in the developmental tasks associated with school.

The findings of Ryan et al. (1994) were consistent with the overall argument presented in self-determination theory, that psychological need fulfillment was associated with how human motivation and the regulation of behavior was experienced in a developmental context like K-12 schools, where externally regulated controls are often imposed. In this particular examination, perceptions of positive relationships with adults (both parents and teachers) operated as a conduit of relatedness need fulfillment and appeared to support the internalization of the behavioral regulation needed for more optimal forms of school functioning.

Both Deci et al. (1981) and Ryan et al. (1994) found empirical support for some of the main propositions put forth in SDT. Taken together, Deci et al. (1981) and Ryan et al. (1994) found that autonomy supportive environments and the satisfaction of relatedness through developmental relationships with teachers and parents, influenced factors related to school functioning in the K-12 context, including motivation. Additionally, the specific examination of relatedness conducted by Ryan et al. (1994) provided evidence that in an educational environment, where external controls are often thrust upon students, developmental relationships with adults supported relatedness need satisfaction and subsequently more optimal school functioning.

SDT in Higher Education Persistence Research

Although SDT research has proliferated in the K-12 context (Neimiec & Ryan, 2009) there is actually a limited body of research to date that has examined the relationship between psychological need satisfaction and college student motivation, and more specifically, how the different motivational orientations presented in SDT are associated with college student persistence. In their review of the higher education persistence literature, Guiffrida et al. (2013) identified only three studies that explored the relationship between college student intrinsic motivation and student outcomes like academic achievement and persistence (Côté & Levine, 1997; Stage, 1989; Vallerand & Bissonnette, 1992). In order to explore how SDT has been employed in college student persistence research, I review Vallerand and Bissonnette (1992) which was the first study to explore college student motivation through an explicitly SDT framework, as well as a conceptually related study by Guiffrida et al. (2013) which specifically sought to examine the relationship between relatedness need satisfaction and college student outcomes like academic achievement and intention to persist at college.

Motivational Orientations and Persistence. In their study, Vallerand and Bissonnette (1992) explored the predictive relationship between motivational style and the actual persistence behavior of junior college students in a college course. Specifically, the researchers hypothesized that participants who displayed more self-determined motivational styles (identified, integrated, and intrinsic motivation) at the outset of a college course were more likely to persist. To examine their hypothesis, the researchers distributed a questionnaire to 1,062 students during the second week of a first-term compulsory French course at a French-Canadian Junior College.

To measure participants' motivational style towards academic work, the researchers used an experimental version of the Academic Motivation Scale (AMS) (Vallerand et al., 1989). This version of the AMS assessed participants intrinsic motivation, four types of extrinsic motivation (external, introjection, identification, integration) and amotivation towards two primary academic activities. Participants were asked, "Why are you going to school?" and "Why do you do your homework?" Each questionnaire had 18 response items, with each response item representing one of the different motivational styles. Participants indicated how true each item was for them along a scale of 1 (not true at all) to 7 (completely true). The responses were combined to form six motivational subscales (amotivation, external, introjected, identified, integrated, and intrinsic motivation).

Persistence was measured by examining whether students completed the course, administratively dropped out, or stopped participating (students who earned less than 40% of the course points). Students were assigned one of two scores (1 = completed the class/did not drop out, or 2 = dropped out).

Vallerand and Bisonnette (1992) found a significant relationship existed for four of the six motivational subscales and student persistence ($p < .05$). Students who were intrinsically

motivated or displayed positive styles of extrinsic motivation (i.e., identified and integrated) and had lower amotivation were more likely to persist through the course. Surprisingly, they also found that less self-determined types of extrinsic motivation, external and introjected, were not significantly related to persistence behaviors at all. This finding suggested that although student behavior in a junior college academic course may be more externally regulated, it was not sufficient for predicting whether students would persist through a course. Results also showed a gender effect with females, who in general exhibited more self-determined styles of motivation than the male participants in this study.

Vallerand and Bissonnette (1992) were able to identify a link between motivational type and college student persistence in a college course through a SDT lens. However, their research did not specifically consider how the college classroom experience fostered psychological need satisfaction, a key area of focus in the studies conducted by Deci et al. (1981) and Ryan et al. (1994) in the K-12 context. Therefore, although their study substantiated that different forms of motivation could predict changes in college student persistence, how the college experience influenced need fulfilment in order to foster intrinsic and more internalized extrinsic forms of motivation was unexplored.

Relatedness, Academic Achievement, and Persistence. Aside from the work of Vallerand and Bissonnette (1992), Guiffrida et al. (2013) is one of the only other studies that has explored college student motivation from an SDT framework and considered the relationship between motivational type and outcomes like intention to persist and academic achievement. Additionally, rather than measuring motivational styles along the extrinsic to intrinsic continuum like Vallerand and Bissonnette (1992), Guiffrida et al. (2013) assessed college student motivation by giving specific focus to the individual psychological needs for autonomy,

competency, and relatedness, measuring what they termed “students’ motivational orientations” towards going to college. Through this psychological needs lens, they posited that students would either be more autonomy oriented, competency oriented, or relatedness oriented for attending college. Guiffrida et al. (2013) was also particularly interested in investigating the need for relatedness, given that other research had suggested that relationships with peers, faculty, and family and friends from home could help support college student success (see Guiffrida & Douthit, 2010).

Guiffrida et al. (2013) designed their study to explore the relationship between motivational need orientations and two primary dependent variables, academic achievement and intent to persist in college. The researchers hypothesized that autonomy and competency motivational orientations would be positively related to academic achievement and intent to persist in college. For relatedness motivational orientations, the researchers developed four relatedness need fulfilment propositions to test:

1. Relatedness motivational orientation to home - to give back (altruistic).
2. Relatedness motivational orientation to home - to stay connected and “keep up” with peers and family.
3. Relatedness motivational orientation to college faculty.
4. Relatedness motivational orientation to college peers.

For proposition 1, the researchers hypothesized that a relatedness motivational orientation towards going to college to give back to one’s family would be positively associated with academic achievement and intent to persist. They saw this as an altruistic desire, and therefore, would reflect intrinsic motivation. For proposition 2, they hypothesized that a relatedness motivational orientation to home which was focused on keeping up with friends and family

would be negatively associated with academic achievement and intent to persist. For proposition 3, they hypothesized that a relatedness motivational orientation to connect with college faculty would be positively associated with academic achievement. For proposition 4, the researchers hypothesized that a relatedness motivational orientation to connect with college peers could prove “problematic” (Guiffrida et al., 2013, p. 124).

To test these hypotheses, data was collected from undergraduate students enrolled at two diverse institutions in the northeastern United States. One institution was a junior college located in an urban setting, and the other institution was a regional four-year liberal arts college. A web-based survey was sent to all full-time undergraduate students yielding 2,520 responses. Approximately 22% of respondents where students of color and 68% were female. Participants self-reported demographic data and their cumulative GPA which was used to measure academic achievement. The survey also included three items to measure participants’ intent to persist in their college/school. Participants were asked to rate the extent to which statements about dropping out did or did not correspond with their feelings along a 7-point Likert-type scale (e.g., “I sometimes consider dropping out of school”, “I intend to drop out of school”, and “I sometimes feel unsure about continuing my studies year after year”).

Motivational orientations were measured using several subscales related to each individual psychological need. The first subscale of competency motivational orientation was measured using a competence motivation scale derived from the Academic Motivation Scale (AMS; Vallerand et al., 1992). The second subscale of relatedness motivational orientation was measured using The Need for Relatedness at College Questionnaire (NRC-Q; Guiffrida et al., 2008). The third subscale, autonomy motivational orientation, was measured using the Autonomous Motivation Scale (Guiffrida et al., 2013).

Analysis of the data yielded several findings. First, the researchers found a positive relationship between autonomy and competency motivational orientations and student academic achievement and intention to persist as expected (for all four tests, $p < .01$). Students who attended college motivated to experience autonomy and competency need fulfillment reported higher cumulative grade point averages and intentions to remain in college. Like prior studies in the K-12 school setting (Deci et al., 1981; Niemiec & Ryan, 2009), the findings of Guiffrida et al. (2013) reaffirmed the relationship between autonomy and competency need fulfillment, academic achievement, and intention to persist in the postsecondary educational context.

However, as predicted, the findings for relatedness motivational orientations were more nuanced. For proposition 1, where the relatedness motivational orientation was conceptualized as an altruistic desire to give back to the home community, the researchers found a negative relationship with academic achievement ($p < .01$) and no significant relationship with intent to persist. For proposition 2, where the relatedness motivational orientation to home was conceptualized as a need to keep up with family and friends, no significant relationship was found with academic achievement or intent to persist. For proposition 3, Guiffrida et al. (2013) found a positive relationship between participants who were motivated to go to college for connecting with faculty and academic achievement. For proposition 4, the researchers found a negative relationship between participants who were motivated to go to college to connect with peers and academic achievement ($p < .01$).

The findings for the relatedness motivational orientation are discussed here further for clarity. First, participants who possessed a relatedness motivational orientation towards fostering connections with faculty performed better academically. This finding supports other research in higher education literature that has documented the important role that faculty can play in

positively influencing student academic achievement and persistence (Pascarella & Terinzini, 1980, 2005). Alternatively, there was a negative relationship between students who indicated the desire to go to college to fulfill relatedness needs with peers and academic achievement. Guiffrida et al. (2013) suggested that perhaps students who were more focused on fostering peer social connections were less focused on their academic performance (p. 134). Unlike Ryan et al. (1994) who found no significant association between peer relationships and school functioning in the intermediate school setting, in college a motivation to connect with peers seemed to have a negative impact on college students' academic achievement. It is worth noting that neither relatedness to faculty nor relatedness to peers was found to be significantly associated with intent to persist in college.

The findings for the two propositions addressing relatedness to home were even less clear. Despite a growing body of research that has suggested that familial and home community relationships can support college student success (see Guiffrida & Douthit, 2010), Guiffrida et al. (2013) actually found that individuals who indicated a desire to go to college to give back to their family members or their home community exhibited poorer academic achievement. There was no relationship between relatedness to give back and intent to persist. Additionally, no relationship was found between keeping up with friends from home and academic achievement or intent to persist.

Guiffrida et al. (2013) suggested that this confounding finding between relatedness for giving back and academic achievement, and the lack of association between both relatedness to home propositions and intention to persist, was perhaps reflective of how race/ethnicity might moderate these relationships. They suggested a desire to "give back" may be a more salient academic motivation in one cultural orientation compared to another. They also posited that that

the need to “give back” may not be an intrinsic motivation as they initially suggested, but rather, may represent a less integrated and more introjected form of extrinsic motivation. Although Guiffrida et al. (2013) suggested differences in race/ethnicity was a potential influencer in their study, they treated all non-White students as one sample population, homogenizing participants of different ethnic/racial backgrounds in their analysis. Thus, their ability to examine how racial and ethnic differences potentially moderated these relationships further was limited.

Summary of SDT Research in Education

Self-determination theory and a select number of representative studies that have employed this framework in educational research were reviewed here to investigate the link between psychological need fulfillment, motivation, and behavioral regulation in developmental contexts like K-12 schools or colleges and universities. This research indicates that the fulfilment or constraint of psychological needs, through interactions in the social environment with teachers/faculty and peers, directly influences how students experience motivation and behavioral regulation towards developmental tasks in both the K-12 and postsecondary context (Deci et al., 1981; Guiffrida et al., 2013; Ryan et al., 1994; Vallerand & Bissonnette, 1992). This research also found that in contexts where external controls are often imposed upon individuals, such as educational environments, feeling connected to others and experiencing relatedness need satisfaction influences the internalization of these controls and enhances academic success. In one instance, when relatedness was fulfilled with adults in the intermediate school context, school functioning was enhanced (Ryan et al., 1994). In the postsecondary context, Guiffrida et al. (2013) found that academic achievement was either enhanced or diminished depending upon whether relatedness need fulfilment was experienced through faculty or through peers. However, Guiffrida et al. (2013) was unable to find a link between relatedness need satisfaction in the

postsecondary institutional environment and college student persistence, leaving our knowledge about this potential connection between the relatedness need and college student persistence limited.

Synthesis: SDT, Psychological Needs, and College Student Persistence

The higher education persistence frameworks of integration (Tinto, 1975), involvement (Astin, 1984), and engagement (Kuh, 2001) that were reviewed at the outset of this chapter suggested that college student background characteristics (Kuh, 2001; Tinto, 1975), how college students perceive the institutional environment (Kuh, 2001; Milem & Berger, 1997; Tinto, 1975), and how they come to be behaviorally involved or engaged with college life (Astin, 1984; Kuh, 2001; Milem & Berger, 1997; Tinto, 1975) all impact college student persistence. Additionally, this research indicated that the qualitative character of student involvement in specific objects, and the degree to which these objects correlate to the college experience, mattered for this potential impact (Astin, 1984, Kuh, 2001). SDT indicates that the energizing effort college students experience towards specific tasks or involvements in college, and the quality of these involvement behaviors, also results from how psychological needs are either being constrained or fulfilled through relationships with others in the institutional environment. Therefore, according to SDT, it is not only what students chose to do in college or how they do it that impacts persistence, but how the institutional environment supports or constrains psychological need fulfillment.

However, there is limited research from an SDT perspective that has explored the connection between psychological need fulfilment and college student success. Vallerand and Bisonnette (1992) found evidence that persistence could be predicted by motivational types in a junior college course but did not examine how psychological needs were either constrained or

fulfilled during the college experience. In a different approach that did attend to psychological needs, Guiffrida et al. (2013) examined college student motivation conceptualized as orientations towards psychological need fulfilment, with a specific focus on those college students who indicated a desire for relatedness need fulfilment. Consequently, their examination found differing effects on academic achievement depending on who college students were seeking relatedness need satisfaction through, and they did not find a connection between relatedness need fulfilment and intent to persist. Thus, the empirical research exploring psychological need satisfaction in relation to college student persistence from an SDT perspective is limited (Guiffrida et al., 2013), especially research on the role of relatedness or belonging.

Belonging, however, has been studied more extensively in other areas of educational research. Derived from the research on relatedness in SDT (Deci & Ryan, 1985), belonging was first studied as an isolated need in the school belonging literature of Carol Goodenow (1993a; 1993b) in the K-12 context. The next section of this chapter first examines the conceptual foundations of the isolated belonging need as outlined through SDT (Ryan & Deci, 2017) and the work of Baumeister and Leary (1995). A theoretically grounded understanding of what constitutes the belonging need is essential for considering how this concept has been attended to and operationalized in empirical research at both the K-12 and college level. I then review some of this early work on school belonging by Goodenow (1993a;1993b) and Goodenow and Grady (1993) which identified important group effects for belonging need fulfillment in the educational context.

Conceptual Foundations and Belonging in Early Education Research

Conceptual Foundations of the Belonging Need

One of the first psychologists to address the human need to foster connections with others was Murray (1938) who referred to this need as the need for affection between people. Rogers (1951) subsequently referred to it as the need for positive regard from others. The seminal work in psychology by Maslow (1954) is perhaps one of the most recognizable and prominent discussions of the human need to belong. In his hierarchy of human needs, Maslow theorized that human beings possessed a fundamental need to experience love and belonging through relationships with others. He argued that once individual's physiological and safety needs were fulfilled, humans would then turn to fulfilling the need to belong through the development of interpersonal relationships which allowed them to experience affection from others in the social environment. According to Maslow (1954), the need to belong was one of the primary drivers of all human behavior.

Following Maslow (1954), the examinations of the need for relatedness in self-determination theory (Deci & Ryan, 1985), and the groundbreaking work on K-12 school belonging by Goodenow (1993a), Baumeister and Leary (1995) presented a theory of belonging that elaborated this need further. First, Baumeister and Leary (1995) articulated a clear evolutionary basis for the human need to belong. They argued that early humans who were able to interact in groups were afforded better survival opportunities, such as protection from external threats, the ability to reproduce and raise children, the ability to generate more resources and secure them against external competition, and the ability to engage in relationships based upon mutual experiences of felt affection. Over time, these advantages made humans more prone to

forming social connections and interacting in groups as they learned the benefits of positive socialization and the harms related to social deprivation (p. 499).

More importantly, Baumeister and Leary (1995) also offered a foundational framework that outlined the necessary characteristics of human connections that were essential for fostering belonging need satisfaction. They defined the need to belong as “a need to form and maintain at least a minimum quantity of interpersonal relationships” (p. 499). Their conceptualization of the need to belong involved two main features. First, they posited that human beings required frequent personal interactions with others that were experienced as pleasant. Infrequent interactions, or negative interactions, would not fulfill the belonging need. Second, the interpersonal relationships human beings developed needed to be perceived as stable, that there existed “affective concern” for one’s wellbeing in the relationship, and that the relationship was likely to continue (p. 500).

According to the Baumeister and Leary (1995) it was this combination of frequent positive interaction with another individual or individuals, and the perception of security and caring within those relationships, which framed belonging and differentiated belonging from similar concepts. For example, affiliation and intimacy are conceptually similar to belonging, but do not in and of themselves constitute the full belonging need. Although an individual may interact frequently with another person and maintain a sense of affiliation with that person, a lack of affective care or concern within the relationship would prevent these interactions from satisfying the belonging need. Alternatively, the satisfaction of intimacy and affection may occur in a single interaction with another individual, but if the relationship is perceived as unstable, infrequent, or not likely to last, belonging needs would not be satisfied. Baumeister and Leary (1995) hypothesized that although experiencing affiliation or intimacy alone would be

experienced as more positive than experiencing neither, both components were necessary for experiencing a sense of belonging.

Additionally, Baumeister and Leary (1995) argued that a sense of belonging was the result of bidirectional relationships, where individuals not only received care and concern from others but contributed care and affective concern in return. Ryan and Deci (2017) addressed this very dimension of mutuality stating that relatedness “refers to both experiencing others as responsive and sensitive and being able to be responsive and sensitive to them” (p. 86). Baumeister and Leary (1995) connected this mutuality to the stability of the relationship, noting that “these interactions must take place in the context of a temporally stable and enduring framework *of affective concern for each other’s welfare*” (p. 497). Therefore, belonging need satisfaction and a sense of belonging was the result of relationships where individuals were meaningfully connected with others in a bidirectional way, where all parties involved experienced the beneficial support of those connection (Baumeister &, Leary, 1995; Ryan & Deci, 2017).

In summary, based upon the conceptualization of belonging conveyed by Baumeister and Leary (1995) and Ryan and Deci (2017), belonging is a concept which has several dimensions. Baumeister and Leary (1995) state that belonging results from having frequent, positive, and stable connections to others. Infrequent, negative, or unstable connections do not foster a sense of belonging, although they may generate a sense of affiliation or a sense of intimacy. Within these connections, it is also necessary that individuals experience a sense of mutuality and reciprocity, that individuals care and are concerned for others welfare, and experience that same care and concern in return. All these dimensions of belonging are experienced through relationships within a social setting, or through the perceived membership of an individual with a

social group. Belonging, therefore, is a psychological need underlying motivation that when fulfilled can be understood as a state of being or experience that is beyond mere affiliation, but rather has a threshold characterized by stability, positive regard, frequency of interaction, mutuality and reciprocity of care and support, whereby an individual both gives to and receives from others in a beneficial manner.

This conceptualization of belonging and its primary dimensions are important to review in advance of examining the college belonging literature since it provides a theoretical foundation from which to assess how belonging has been conceptualized at the college level. However, before turning to this literature, I next examine and review some of the earliest operationalizations of the isolated need to belong in the educational context (Goodenow, 1993a,1993b; Goodenow & Grady, 1993). Building off the tradition of SDT, this early school belonging research was the first to attempt to measure a sense of belonging and examine it in relation to motivation in the classroom and school context. These early investigations of belonging identified important gender and race/ethnicity effects that also inform later research of belonging at the college level.

Review of Foundational Studies of Belonging in K-12 Education

The early research on belonging in the educational context was directly related to research in self-determination theory, building off of the empirical work conducted by others on the connection between the need for relatedness and motivation (Connell & Wellborn, 1990; Deci et al., 1991; Ryan & Powelson, 1991). Carol Goodenow (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993) conducted the first research on the isolated need of belonging with adolescent students in the K-12 environment. In her first exploratory study, Goodenow (1993a) investigated the relationship between students' perceptions of classroom belonging, motivation,

and academic achievement. In line with self-determination theory, Goodenow (1993a) argued that a sense of belonging within the social context of the classroom was a potentially important force for shaping academic motivation for students, since it was within this social context that students' "expectancies, values, and motivation-related behaviors" occurred (p. 22).

In her study, Goodenow (1993a) defined students' sense of belonging as students' personal sense of being included, liked, and respected within the academic classroom. She was interested in how a sense of belonging was experienced through supportive developmental relationships. She conceptualized motivation through two variables, students' expectations for academic success (expectancies) and the value students ascribe to the academic subject they were studying (values), a conceptualization of motivation adapted from Atkinson (1964). Goodenow (1993a) presented three hypotheses: 1) that students' perceptions of belonging/support in the K-12 classroom environment would be positively related to their expectations for academic success; 2) students' perceptions of belonging/support in the K-12 classroom environment and their expectations for academic success would be significantly associated with the value students ascribed to what they were learning; and 3) students' perceptions of belonging/support in the K-12 classroom environment, their expectations for academic success, and the value they ascribed to their learning, would all be positively related to effort and achievement. To test these hypotheses, Goodenow (1993a) collected data from early adolescent students in a suburban New England middle school (n = 353) where the student body was predominately White.

To develop a measure of belonging/support for her study, Goodenow (1993a) first operationalized the concept of belonging/support using the Class Belonging and Support Scale (CBSS; Goodenow, 1993a). This scale included an initial 28 items corresponding to students'

perceptions of acceptance/inclusion versus alienation within the classroom, both in general (e.g., “I often feel out of place in this class”) and in relation to their connection with teachers as well as fellow students (e.g., “My science teacher is interested in what I have to say” or “Other students in my English class are very friendly to me”). It also included items tapping students’ perceptions of belonging in relation to a work group or task environments and social acceptance (e.g., “Other students in my social studies class like to work with me”). Classroom climate, which is conceptually related to the sense of belonging, was also included as a subscale of the belonging/support measure in the CBSS. This classroom environment subscale, adapted from the Classroom Environment Scales (CES; Moos & Trickett, 1974), included items tapping affiliation and teacher support.

Student motivation was measured along two subscales, students’ expectations for academic success and the value and importance they attached to an academic subject (Atkinson, 1964). Students’ expectations for academic success in the classroom was measured using a nine-item scale developed by Pintrich and DeGroot (1990) which included items like “I expect to do very well in *school subject* (social studies/math/science/English).” The eight-item Intrinsic Value Scale, also adapted from Pintrich and DeGroot (1990), was used to assess the value students attached to the academic subject they were learning. This scale included items like “Understanding *school subject* (social studies/math/science/English), is important to me.”

Academic achievement and effort data were provided by the English teachers who administered the questionnaire in their English class. Each teacher provided a probable final grade for each student, and also provided an effort rating for each student on a three-point scale.

Using a principal component analysis of the CBSS scale, Goodenow (1993a) derived three factors that accounted for most of the variance in the scale, and initial items were

reconfigured along these subscales. These three factors were Peer Support, which dealt with positive relations between participants and their classmates, Teacher Support, which explored the relationship between the students and their teacher, and general Belonging/Alienation, which addressed general feelings of belonging as well as feelings of alienation or negativity (p. 30). Utilizing these three factors, Goodenow (1993a) then conducted a correlational analysis to explore their relationship to motivation. Utilizing both zero-order correlations and multiple regression analysis, Goodenow (1993a) found that there was a significant positive correlation ($p < .001$) between the CBSS factors (Peer Support, Teacher Support, Belonging/Alienation) and students' motivation. Of the three belonging factors, Teacher Support was the largest predictor of students' motivation. The analysis also indicated a significant positive relationship between belonging, motivation, and actual classroom effort and achievement. ($p < .001$).

This initial research by Goodenow (1993a) indicated that adolescent students who experience belonging need fulfillment in the classroom, primarily through supportive developmental relationship with the teachers, had higher levels of motivation and subsequent achievement in the classroom. This conclusion supported Goodenow's (1993a) broader suggestion that a perceived sense of social membership to a group could positively affect student motivation, and that a student's motivation to achieve was not a purely intrapsychic phenomenon but was influenced by relationships in the classroom context. In addition to these findings, Goodenow (1993a) also found gender differences between male and female adolescents. She found that a sense of belonging had a greater impact on female students' motivation. Specifically, teacher support in the classroom environment played a significant role in enhancing female students' motivation even though effort and academic achievement measures indicated female students generally performed better in school than their male counterparts. Goodenow

(1993a) hypothesized that this finding was potentially the result of the developmental pressures adolescent females experienced during this time period, including pressures “toward antiachievement forms of ‘femininity’ that may accompany gender intensification” (p. 38).

Goodenow (1993a) acknowledged that her study was a limited correlational study that did not show causation. It was likely, she suggested, that as much as the results suggested belonging and support enhanced motivation the reverse could also be true. Students may experience enhanced perceptions of support due to the “result of high expectations, of a strong sense of the intrinsic value of school learning, and of prior achievement” (p. 38). Additionally, this study was designed in a way that the self-reported data for achievement was only represented by a projected fourth term grade in English class for each student, whereas a more complete measurement for achievement may have proven beneficial. Third, the author cautioned against the generalizability of the result since most students in the sample were White and were middle-class suburban students. Accordingly, Goodenow (1993a) identified that “needs for support and belonging, then, may be somewhat less urgent among these students than among other groups of early adolescents” (p. 39).

Still, Goodenow (1993a) represents one of the first studies to measure belonging need fulfillment in the K-12 classroom context, examining the relationship between the fulfillment of the psychological need to belong and motivation. Goodenow (1993a) also identified several important group effects on belonging in this early empirical research. The primary effect Goodenow (1993a) identified was a gender effect, where teacher support was found to be more impactful for belonging with female students, and that a sense of belonging for female students had a greater impact on specifically their expectations for success in school. Goodenow (1993a) also noted some important findings from a developmental perspective in relation to grade level

differences. Although absolute levels of belonging were not different between sixth, seventh, and eighth grade students, the impact of belonging on motivation changed, with correlations between all measures except for teacher support declining as students got older. Goodenow (1993a) hypothesized that older students who had longer histories of past academic achievements relied less on developmental support from peers for believing in their own propensities for academic success, an early suggestion that belonging may be more impactful in situations where individuals are newer to the group or social environment, and that different developmental relationships may prove more important for belonging at different times.

The Development of the PSSM, Goodenow (1993b). Following her initial investigation of belonging in the classroom context, Goodenow (1993b) sought to examine school-level belonging to help create an accurate measurement tool for use in further empirical research. In line with her earlier research (Goodenow, 1993a), Goodenow (1993b) defined school level belonging as a "students' sense of belonging or psychological membership in the school or classroom, that is, the extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (p. 80).

At the outset of the scale development process Goodenow (1993b) created a preliminary 28-item scale measuring school belonging. This preliminary scale was tested with both urban and suburban student samples in two studies. In Study 1, a questionnaire incorporating the preliminary scale was administered to 454 students in a predominantly White suburban middle school (Goodenow, 1993a). This questionnaire was administered in students' English class by the teacher, and for each student that completed the questionnaire, teachers also reported student's probable end-of-year English grade, rated students' effort in the class, and also

included a rating (either high, medium or low) of how they perceived each student's standing among their peers.

In Study 2, the same questionnaire was administered to sample populations from two urban junior high schools. The first urban junior high school, School A, included a sample of 198 students who were predominately Black (n = 89, 45% of the total) or Hispanic (n = 33, 16% of the total). In the second urban junior high school, School B, a sample of 7th grade students (N = 103) completed the questionnaire, the majority of which identified as Hispanic (n = 77, 75% of the total).

This study also included two motivation subscales assessing students' expectations for success and the value they attributed to learning (Atkinson, 1964), like the motivational measures used in Goodenow (1993a). In order to adapt these measures for use in a study of school level belonging, these items were rephrased from the specific classroom subjects used in Goodenow (1993a) to the school or school environment generally. After the first two studies with suburban and urban students were completed, items were eliminated from the initial school membership scale, resulting in a remaining 18 items that constituted the final Psychological Sense of School Membership scale (PSSM; Goodenow, 1993b). This scale was then administered in a third study, Study 3, to a sample population from the same suburban school in Study 1. This time the PSSM scale was administered to 611 students in grades 5-8, and official report card records were utilized to measure academic achievement.

Using a contrasted group validation procedure to examine construct validity for the PSSM, Goodenow (1993b) made several predictions about group and subgroup differences in student sense of school belonging. Goodenow (1993b) first predicted that suburban students would possess a stronger sense of school belonging than their urban peers. This prediction was

found to be true, with suburban students reporting a significantly higher sense of school belonging than students in the urban schools ($p < .01$). Goodenow also conducted a two-way ANOVA investigating the effects of grade-level versus length of residence with the suburban student sample. Goodenow found a main effect for length of residence but not grade level, newcomers to town reported a significantly lower sense of school belonging than those residents with a longer residential tenure ($p < .01$), again supporting her earlier suggestion that a sense of belonging may prove more important in contexts where individuals are newer to the group or social environment. Additionally, Goodenow (1993b) hypothesized that for the suburban student sample different levels of social standing with peers would be significantly associated with students' sense of school belonging. This hypothesis was also found to be true ($p < .001$). Students whose teachers had ranked them as having higher standing among their peers also indicated higher levels of school belonging.

Several predictions were also made for the urban junior high student samples. Surprisingly, although length of residence was significantly related to school belonging for suburban students, in testing for group difference in sense of school belonging for grade level and length of residence with the urban student samples, no significant relationship was found. Goodenow (1993b) hypothesized that a sense of alienation, or feeling like an outsider, might not be directly related to length of residence, but rather, how a student's ethnicity was represented in relation to the broader school environment in this urban setting. Goodenow (1993b) found this alternative explanation to be true. In School B, which was a predominately Hispanic school, Hispanic students indicated higher levels of school belonging than non-Hispanic students. In School A, where there was no clear ethnic majority, there were no significant differences in school belonging among ethnic groups.

This research suggested some important group differences for school belonging. Goodenow (1993b) found that race/ethnicity was significantly associated with school belonging for urban students depending upon the racial makeup of the school context. Another group difference between suburban students and urban students was length of residence, which was not associated with belonging for urban students, but was for suburban students. Goodenow (1993b) also replicated earlier findings on gender effects for belonging among female and male students, finding that female students generally had higher school belonging scores than males. These juxtaposed findings suggested that the factors that can influence a sense of belonging in the intermediate school environment was influenced by both personal traits as well as contextual, situational, and environmental factors. Goodenow (1993b) notes:

> That is, a particular young person may be generally predisposed to view others in most situations as accepting, friendly, and supportive or as rejecting and cold. On the other hand, such a student would probably also report significant variations across situations and settings, feeling more accepted and valued in one context but less so in another. (p. 88)

Finally, in addition to identifying these group differences in sense of school belonging, Goodenow (1993b) also considered the relationship between school belonging and motivation and academic achievement. Like her earlier research, Goodenow (1993b) found a significant relationship between a sense of school belonging and motivation ($p < .001$), and the PSSM was also found to be a significant predictor of grade point average for the year ($p < .001$). Like her earlier work, the PSSM (Goodenow, 1993b) also continued to conceptualize belonging primarily through supportive developmental relationships with peers and teachers in the school environment.

Sense of Belonging Across Group Differences, School Type, and Friend Influence. In a follow up study in the same year, Goodenow and Grady (1993) worked to further Goodenow's (1993a; 1993b) initial research on classroom and school belonging by assessing three main questions. First, they wanted to further explore the group differences identified in the earlier research (Goodenow, 1993a; 1993b). They were particularly interested in measuring at what level adolescents in urban schools, and specifically students identified as ethnic minorities, felt a sense of school belonging. Second, the researchers wanted to determine whether a sense of belonging was more associated with motivation for some student subgroups than others. Finally, they were also interested in investigating whether a student's perceived sense of membership in a school was "sufficient to outweigh the influence of a student's friends or immediate peer group in affecting motivation" (p. 62).

In order to explore these research questions Goodenow & Grady (1993) measured student school belonging, student motivation towards school, the value students felt their friendship networks ascribed to academic work, and their individual effort and persistence. They hypothesized that a student's sense of belonging would be significantly associated with motivation for school. They also hypothesized that the effect of school belonging on motivation would be significant even after controlling a student's perceptions of whether or not their friends valued academic work.

School belonging was measured using the Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993b). As previously noted, this scale assessed perceived liking, personal acceptance, and inclusion in the school environment utilizing a 5-point Likert-type format through the examination of supportive developmental relationships with peers and teachers. For example, student responses indicated the extent to which they agreed or disagreed

with statements like, “People at this school are friendly to me,” “Other students in this school take my opinions seriously,” “The teachers here respect me,” or “I am treated with as much respect as other students” (Goodenow, 1993b).

Student motivation was measured through assessing students’ expectations for academic success, the value they attached to their learning, and their general motivation towards school. Expectancy and values were both measured using an adaptation of the scale created by Pintrich and DeGroot (1990), similar to prior studies (Goodenow, 1993a, 1993b). This study included the addition of a general school motivation subscale adapted from the School Motivation Scale (SMS; Ford & Tisak, 1982).

Friends’ values, the value students perceived their friendship network attached to academic work, was measured through asking students to rate the extent to which they agreed with the statement “My friends think that it is important to do well in school.”

Effort/persistence was measured using two items on the questionnaire that asked students to rate their effort and persistence in the face of difficulties, for example “I work hard to get good grades, even if I don’t like class,” and “When schoolwork is hard, I just do the easy parts, or I give up.” For a sample, the researchers used the data collected from the two urban junior high schools in Goodenow (1993b).

In their analysis, Goodenow and Grady (1993) found that students from their sample on average reported that they personally valued schoolwork and expended effort in their studies. However, participants were less likely to believe that their friends thought doing well in school was important. The effect of this finding was significant, since the variable reflecting how students perceived whether or not their friends valued school was significantly associated with all three motivational subscales; student expectations of their own ability to achieve their

academic goals, the value they attached to their studies, and the general motivation they felt towards school ($p < .001$). Therefore, in this study close to half of the participants (n = 122) indicated absolute motivation scores that were more negative than positive towards school.

In line with the findings of Goodenow (1993a, 1993b), Goodenow and Grady (1993) found significant correlations between students' school belonging scores and all other variables. including perceptions of friends' values for education, and all three motivation subscales of expectancy, values, and general school motivation ($p < .001$), and to a lesser degree with effort/persistence ($p < .05$). It is worth noting the researchers also found that almost half of the participants (n = 124) reported that they felt like they did not belong or were not supported by others in the school.

In their discussion, Goodenow and Grady (1993) cited three significant results of their study. First they found that although the individual participant scores for school motivation for urban students were similar to the results found with middle-class suburban students in prior research (Goodenow, 1993b), their perceptions of belonging to their school environment, that teachers and other peers supported, respected, and/or valued them, were lower. They also felt generally that their friends did not value being in school or performing well. As the authors noted, although urban students were just as academically motivated as their suburban peers, "they expressed far lower levels of social and personal connection to others in the school, a lower belief that others in the school were for them" (p. 67). Their second important finding was that the students who did possess high perceptions of school belonging were more likely to be generally motivated and academically engaged compared to those students who possessed a lower sense of belonging in their sample. Their findings suggested that a perceived sense of school belonging/support could potentially override the influence of a student's peer group

regarding the importance of academic success. The third finding was that there were some gender and ethnic differences among participants in the strength of correlation among specific variables, similar to earlier research (Goodenow, 1993a,1993b). For example, female students' sense of school belonging was found to be more strongly associated with their motivation than male students. Goodenow and Grady (1993) also found that Hispanic students exhibited a stronger association between school belonging and motivation than other ethnic groups in their study.

Summary of Early Belonging Research in K-12 Education

Goodenow (1993a, 1993b) and Goodenow and Grady (1993) provided an important foundation for the study of belonging in K-12 educational contexts. In line with the suggestion of Bernard Weiner (1990) who argued that motivation in education could not be "understood apart from the social fabric in which it is imbedded" (p. 621), Goodenow (1993a, 1993b) and Goodenow and Grady (1993) provided compelling empirical evidence that a psychological sense of belonging and support in the K-12 educational environment contributed to students expectations for success, the value students ascribed to their learning, the general motivation students felt towards the tasks of being in school, and to a lesser but still significant extent the effort and persistence students employed when faced with challenges. As they noted, a perceived sense of social membership was an important component of the student experience, and consistent with SDT, a sense of belonging was associated with the motivational effort that fostered positive student outcomes. This research also identified that a lack of belonging need fulfillment could also be potentially detrimental to students' educational journey if students were experiencing isolation or alienation. Goodenow and Grady (1993) note that:

> We need to recognize that the result of a failure to attain a full and legitimate sense of membership in the school as a social system may be, for many students, lowered motivation, less active engagement, and ultimately diminished academic achievement or even school withdrawal. (p. 70)

Another important contribution of the findings in Goodenow (1993a, 1993b) was the identification that personal sociodemographic differences like the gender, grade level, and race/ethnicity of students interacted with contextual factors to influence overall levels of student belonging, as well as how strongly a sense of belonging was associated with student motivation and academic achievement. These findings suggested that belonging was not simply an intrapsychic phenomenon nor solely affected by the setting, but rather a sense of belonging was the result of an individual within a specific context. Goodenow states this distinction, "psychological membership is seen here neither as a purely personal intrapsychic phenomenon nor as entirely the function of the school environment but rather arising from the person *within* a particular school environment" (Goodenow, 1993b, p. 87).

From a methodological perspective, the work of Goodenow (1993a, 1993b) and Goodenow and Grady (1993) also provided some of the first operationalizations of the isolated belonging need in the K-12 educational context. In these early operationalizations, belonging was examined through supportive developmental relationships with teachers and peers in middle school and differentiated at the classroom and school level. Although perceptions of acceptance, inclusion, and respect from teachers and peers were all included in survey items to tap into dimensions of belonging, items that related to perceptions of support from teachers accounted for most of the variance in students' sense of belonging at both the classroom and school level. These specific supportive relationships in the primary school environment acted to provide

students with the stable, frequent, and positive relations needed for students to experience a sense of belonging (Baumeister & Leary, 1995; Deci & Ryan, 1985).

When considering the different dimension of belonging identified in its foundational conceptualizations (Baumeister & Leary, 1995; Ryan & Deci, 2017) one dimension of belonging that is less evident in this early research is the dimension of mutuality and reciprocity in connections to others, where individuals not only receive affective care from others, but are able to be responsive and provide affective care in return. Baumeister and Leary (1995) as well as Ryan and Deci (2017) clearly identify that relationships that foster belonging are bidirectional, however, the specific conceptualization of these relationships advanced in this early research were unidirectional, with teachers supporting students. This conceptualization is not surprising when considered within the context of the K-12 educational environment. Teacher-to-student or adult-to-youth developmental relationships represent asymmetric relationships given the distinctive role differences between teachers and students in the educational environment. The teacher-student relationship within this context is traditionally understood to be nonreciprocal, with the teacher fostering the learning and development of the students. Stated another way, students are not expected to support or help with the development of teachers. Therefore, these role differences and the specific nature of this developmental relationship likely acts to deemphasize aspects of mutuality and reciprocity in this examination of a sense of belonging. Although a student may experience some form of affective concern for a teacher, for example being worried if a teacher they liked and enjoyed (e.g., cared for) missed class due to illness, it is not the same as the care and concern individuals may experience in peer-to-peer social relationships across a similar developmental stage (e.g., adolescent-to-adolescent relationships or adult-to-adult relationships).

One of the strongest contributions of Goodenow's (1993a;1993b) research, however, was how it helped lead to an overall reconceptualization of teacher-to-student relationships, finding evidence that relationships that were characterized by care and concern were actually directly related to student motivation and success. Whereas student learning and development have often been discussed in terms of the intellectual capability of the student, Goodenow (1993a;1993b) provided strong evidence that teachers who were able to convey a sense of care and concern would be more effective in fostering student motivation and academic achievement. These findings align well with the framework of self-determination theory (Deci & Ryan, 1985) and the foundational conceptualizations of belonging need (Baumeister & Leary, 1995; Deci & Ryan, 1985).

As I turn next to examining the literature on college belonging it is important to consider some of the key ideas examined so far. First belonging is a psychological need, which through satiation or constraint within social settings, influences motivation and the regulation of goal-oriented behavior (Deci & Ryan, 1985). Second, the belonging need has several dimensions. A sense of belonging is experienced through frequent, positive, and stable connections to others in social settings or through psychological participation or membership in an enduring social group (Baumeister & Leary, 1997; Deci & Ryan, 1985). There is also an important dimension of belonging related to mutuality and reciprocity, whereby an individual perceives that they both give and receive care and concern in a mutually beneficial way (Baumeister & Leary, 1995; Deci & Ryan, 1985). In the foundational research on school belonging, belonging was operationalized through developmental support from others (specifically teachers and peers) in the educational environment. However, this specific conceptualization only positioned participants as receivers of support engaged in unidirectional relationships. This foundational research suggested that

belonging need fulfillment in the educational setting varied depending on context and other personal trait factors like gender, grade-level or relative "newness" to a group, and race/ethnicity (Goodenow, 1993a; 1993b; Goodenow & Grady, 1993).

College Student Belonging Research

The final section of this literature review addresses the research specifically concerned with investigating belonging need fulfillment for college students. Strayhorn's (2018) relatively recent publication¸ *College Students' Sense of Belonging: A Key to Educational Success for All Students*, represents one of the most comprehensive syntheses of this literature to date, and therefore, provided a foundation for the development of this review. After a review of Strayhorn (2018), a literature search was conducted for scholarly, peer-reviewed journal articles across two educational research databases, the Educational Resources Information Center (ERIC) and Academic Search Complete. Search parameters included combinations of the terms "belong" and "belonging" with "higher education", "college", "university", "campus", and "persistence" across the titles of peer-reviewed academic journal articles from January of 1997 to September of 2020. This search resulted in an initial list of 111 articles for review.

A first read of all 111 abstracts was completed and criteria for exclusion were developed. This study is focused on examining college students' sense of belonging in four-year colleges in the United States where there is a residential on-campus social life. Consequently, articles that focused on institutional environments or student populations outside of this context were excluded from the literature reviewed. Excluded from review were articles focused on postsecondary institutions outside of the United States, articles that focused on students who were not United States citizens, and articles that focused on a sense of belonging for student populations in 2-year degree granting institutions. In total 32 articles were removed based on this

criterion. The reading of abstracts also identified 11 articles that examined the relationship between belonging and suicidal ideation as well as belonging and substance abuse among college students. These articles were also excluded given the clinical focus of their inquiry and the fact that some were not published in recognized educational research journals. Finally, 30 other articles were removed that were outliers to the focus of this chapter for a variety of reasons. These articles were published in journals that focused on specific discipline areas such as music or mathematics, were articles that after further reading did not use the term belonging in a manner that was consistent with the conceptualization of belonging as a psychological need, and in some cases, were found to not actually focus on college students' sense of belonging even though specific search terms were present in the article's title. In total the number of articles initially identified were paired down to 38, spanning from 1997 to September of 2020. This list was then cross-referenced with the college student belonging studies reviewed in Strayhorn (2018). An additional two articles were identified for inclusion, totaling 40 articles that were reviewed.

Organization of the College Belonging Literature

Within the higher education research on college belonging there are distinct areas of inquiry that researchers have pursued as well as distinct conceptualizations and operationalizations of belonging that have been employed. The review of college belonging literature that follows has been organized primarily along these varying distinctions to provide the reader with some representative understanding of this loose body of research as a whole, including what this research has investigated, how these studies are methodologically similar or distinct, what we know about college students' sense of belonging from the literature, and importantly, what requires further investigation.

The first group of studies reviewed are those that have focused on examining factors in the postsecondary institutional environment that seem to influence college students' sense of belonging. The majority of these studies have investigated the relationship between college students' racial/ethnic identity and belonging need fulfillment. These studies are given considerable attention since racial/ethnic group effects were also identified as important in early school belonging research (Goodenow, 1993b). Studies focused on other potential group effects are also discussed.

The second group of studies reviewed are those that have examined belonging at different setting levels and in relation to different setting qualities. The terminology "setting levels" is employed to differentiate the specific domains in postsecondary institutions that researchers have studied belonging, such as a sense of belonging at the classroom-level or a sense of belonging at the broader campus-level. The terminology "setting qualities" is used to distinguish specific factors that have been investigated in relation to belonging, for example, perceptions of a climate supportive of diversity within a residence hall (Johnson et. al, 2007) or perceptions of a campus climate characterized by racial tension (Hurtado & Carter, 1997). It is also worth noting that several of the representative studies reviewed in this section are also unique to the literature as they have developed novel measures of college student sense of belonging (e.g., belonging need satisfaction among college students).

Finally, after reviewing racial/ethnic group effects, other sociodemographic group effects, antecedents of belonging, setting levels, and setting qualities, the final section of this chapter considers how belonging has been conceptualized across the college belonging literature as a whole. Although the conceptualization and operationalization of the belonging concept is discussed throughout the entirety of this literature review, this section specifically examines how

the college student belonging literature has conceptualized and operationalized belonging considering its foundational psychology literature (Baumeister & Leary, 1995; Ryan & Deci, 2017) and early school belonging research (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). This chapter concludes by identifying opportunities for future research based upon how belonging, and its relevant dimensions, have been attended to in the higher education belonging literature so far.

Race/Ethnicity Effects, Other Group Effects, and Antecedents of Belonging

As previously discussed, research findings from Goodenow (1993a, 1993b) and Goodenow and Grady (1993) indicated that what influenced a sense of belonging in the educational environment, and the impact that belonging had on potential student motivational and academic outcomes, varied depending on specific group demographics like race/ethnicity, gender, and even relative "newness" to a group. Similarly, research on college belonging is often disaggregated to varying degrees along these lines (Strayhorn, 2018). Most of the research that deals with group effects has examined belonging with respect to students' racial/ethnic demographics (Booker, 2007; Booker et al., 2016; Duran, 2019; Hurtado & Carter, 1997; Johnson et al., 2007; Maramba & Museus, 2013; Samura, 2016; Strayhorn, 2008, 2009; Strayhorn et al., 2016; Tachine et al., 2017; Wells & Horn, 2015), sexual orientation (Duran, 2019, Strayhorn et al., 2010), gender (Booker et al., 2016, Goldberg & Kuvlanka, 2018; Ostrove, 2003; Slaten et al., 2020), first-generation status (Means & Pyne, 2017), socioeconomic status (Means & Pyne, 2017; Ostrove, 2003; Ostrove & Long, 2007; Soria & Stebleton, 2013), and disability status (Graham-Smith & Lafayette, 2004; Jones et al., 2015; Vaccaro et al., 2015).

Race/ethnicity group effects and college students' sense of belonging is examined here given its importance in the K-12 school belonging research (Goodenow, 1993b; Goodenow &

Grady, 1993) and the amount of scholarly attention it has also received in research at the college level (Booker, 2007; Booker et al., 2016; Duran, 2019; Hurtado & Carter, 1997; Johnson et al., 2007; Maramba & Museus, 2013; Samura, 2016; Strayhorn, 2008, 2009; Strayhorn et al., 2016; Tachine et al., 2017; Wells & Horn, 2015). To illustrate these race/ethnicity considerations three representative studies that focus on identifying antecedents of a sense of belonging for Latinx college students in the four-year college environment are reviewed in detail (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008). These three studies illustrate how research on college students' sense of belonging is often conducted with college student racial/ethnic demographic groups, and how even within research on the same demographic group, there is variability in the conceptualization and measurement of the belonging need.

Antecedents of a Sense of Belonging for Latinx Students. In Hurtado and Carter's (1997) foundational study of college students' sense of belonging, they investigated which activities in the institutional environment acted as antecedents to Latinx college students' belonging in their second and third year of college. In response to Tinto's (1975) emphasis on the use of the integration concept in his model of student departure and in line with the critiques of this concept by other researchers (e.g., Tierney, 1992), Hurtado and Carter (1997) posited that measuring a college students' sense of belonging could act as an alternative measure for a sense of psychological membership with the institutional community, providing a potentially useful indicator for traditionally marginalized college student populations. Hurtado and Carter (1997) based this argument on the psychological research of Bollen and Hoyle (1990), who studied how individuals came to experience perceived cohesion with a social group. They suggested that a sense of cohesion was the result of two primary components, a sense of belonging and feelings of morale.

Although Hurtado and Carter (1997) did not offer a comprehensive definition for belonging in their study, they described it as containing "both cognitive and affective elements, in that the individual's cognitive evaluation of his or her role in relation to the group results in an affective response" (p. 328). Bollen and Hoyle (1990), the study from which this conceptualization of belonging was adapted, suggested that at the cognitive level individuals make an appraisal about their level of belonging to a group based upon the information they have accumulated through experiences with both the larger group and individual group members. At the affective level, individuals assess their level of belonging based upon the types of feelings that these experiences give rise to. This conceptualization of belonging, when applied to college students, emphasized that the perceived satiation or constraint of the belonging need was the direct result of experiences with groups and other individuals in college that influenced college student moods, feelings, attitudes, and subsequently their appraisal of their relationship with that group which led to a cognitive sense of belonging.

Data for Hurtado and Carter (1997) was collected from the National Survey of Hispanic Students, a longitudinal study of Latinx college students across higher education institutions in the United States. This survey utilized adaptations of the Sense of Belonging Scale developed by Bollen and Hoyle (1990). This scale consisted of three items (e.g., "I feel a sense of belonging to…," "I feel that I am a member of the…," and "I see myself as part of the… community"). Compared to the work on K-12 school belonging that operationalized belonging through supportive relationships with teachers and peers (Goodenow, 1993b; Goodenow & Grady, 1993), this scale operationalized belonging specifically through items tapping directly into perceptions of membership with the institutional community.

Hurtado and Carter (1997) found that specific activities, such as talking with college peers about course content outside of class, tutoring other students, having discussions with faculty, and membership in social organizations were antecedents to Latinx college students' sense of belonging. Hurtado and Carter (1997) also identified that participation in social organizations influenced belonging, suggesting that in the college environment, a psychological sense of group membership could also facilitate a sense of belonging to a broader institutional community. One of the most interesting findings of Hurtado and Carter (1997), that also generated a large amount of subsequent research, was that Latinx college students' perceptions of the racial climate on the campus had a significant impact on their sense of belonging. They found that Latinx college students who perceived their campus environment to be characterized by racial tension exhibited a far lower sense of belonging than students who did not share these views. Other belonging researchers since this time have examined this phenomenon with other student racial/ethnic populations, such as African American, Asian/Pacific American, and Caucasian/White college students and have discovered similar findings (e.g., Johnson et al., 2007; Marmaba & Museus, 2013), indicating that particular setting qualities can impact college students' sense of belonging.

Hurtado and Carter (1997) also found in their analysis that similar activities impacted a sense of belonging for Latinx college students differently depending on their grade level. For example, Hurtado and Carter (1997) found interactions with faculty and tutoring peers were not significantly associated with a sense of belonging in Latinx students' second year of college but were found to be significantly associated with a sense of belonging in their third year. This finding suggested that at different points in Latinx college students' academic career, a sense of

belonging was influenced by different types of interactions with others in the collegiate environment.

Several other studies have been derived from Hurtado and Carter's (1997) foundational research. Building from these early findings, and with a broadened focus on racial/ethnic differences among college student populations, Johnson et al. (2007) explored differences in first-year college students' sense of belonging by race, comparing Hispanic/Latinx, African American, and Asian/Pacific American students with that of White/Caucasian students enrolled in the same institution. In this study, the researchers developed five survey items to measure belonging. These items tapped into students' perceptions of comfort on campus, whether or not students felt their institution was supportive, whether or not they would chose to attend the same college again given the choice, whether or not students perceived a sense of membership in the college community, and one general item addressing whether they experienced a sense of belonging to the campus community. This approach offered up an alternative operationalization of belonging than Hurtado & Carter (1997), adding items related to institutional support, comfort, and satisfaction with student enrollment choices. Johnson et. al (2007) examined race/ethnicity and controlled for gender effects while limiting their sample population to first-year college students.

Johnson et al. (2007) found that African American, Hispanic/Latinx, and Asian/Pacific American first-year college students all reported a lower sense of belonging than their Caucasian/White peers. Johnson et al. (2007) also found evidence that similar activities in the institutional environment impacted participants differently depending on race/ethnicity. For example, participation in co-curricular activities was associated with a sense of belonging for Asian/Pacific American and White/Caucasian first-year college students, but not for

Hispanic/Latinx or African American first-year college students. Johnson et al. (2007) also provided additional evidence that students' perceptions of the racial climate in specific postsecondary settings could impact students' sense of belonging. Specifically, Johnson et al. (2007) found that residence halls that were perceived as supportive or tolerant of diverse backgrounds significantly predicted belonging for African American, Hispanic/Latinx, Asian/Pacific American, and Caucasian/White first-year college students.

However, other findings in Johnson et al. (2007) regarding how first-year college students' sense of belonging was impacted by interactions with faculty and peers were inconsistent with Hurtado and Carter (1997). Johnson et al. (2007) found faculty-student interactions were not significantly related to college students' sense of belonging for any of the racial/ethnic student groups examined, and that faculty-student interactions were actually negatively associated with a sense of belonging for first-year Hispanic/Latinx college students. Additionally, Johnson et al. (2007) found that interactions with diverse peers fostered a sense of belonging with Hispanic/Latinx first-year college students but was not associated with a sense of belonging for other college student ethnic groups. Johnson et al. (2007, p. 536) noted that given the inconsistencies between these findings and the findings of Hurtado and Carter (1997), as well as "the preponderance of research" in higher education that supports the positive effects of faculty-student interactions on college persistence and degree completion (see Pascarella & Terenzini, 2005), further research was needed to address this anomaly.

Strayhorn (2008) represents a third study in this line of research that examined aspects of the college experience that influenced Latinx college students' sense of belonging. Strayhorn (2008), like Johnson et al. (2007), was interested in comparing the antecedents of belonging for Latinx college students with White college students enrolled in the same institution. Adapted

from Hurtado and Carter's work (1997), Strayhorn (2008) defined a sense of belonging as having both cognitive and affective elements, conceptualized as "the social support that students experience on campus," where a sense of belonging was "a feeling of connectedness, that one is important to others, that one matters" (p. 304-305).

Strayhorn's (2008) data were collected from a sample of undergraduate students of varying grade levels enrolled at four-year institutions who had completed the nationally administered College Student Experience Questionnaire (CSEQ) during the 2004-2005 academic year. Three items from the CSEQ were used to measure college students' sense of belonging. These items operationalized a sense of belonging through examining college students' relationships with others in the institutional environment. For example, one survey item asked participants to rate their relationships with other students, indicating to what extent they felt their relationships were either friendly, supportive, and fostered a sense of belonging or were competitive, uninvolved, and fostered a sense of alienation. A similar measure assessed participants' perceptions of their relationships with administrative personnel and campus offices (from helpful, considerate, and flexible to rigid, impersonal, and bound by regulations). The third subscale assessed participants' perceptions of their relationships with faculty members (from approachable, helpful, understanding, and encouraging to remote, discouraging, and unsympathetic). Like Johnson et al. (2007), Strayhorn (2008) examined race/ethnicity group differences while controlling for gender and age differences.

In his analysis Strayhorn (2008) found that grades, time spent studying, and interactions with diverse peers were positively related with Latinx college students' sense of belonging. In his comparison with White students Strayhorn (2008) found that these same antecedents influenced White college students' sense of belonging differently. For example, although time

spent studying was positively associated with a sense of belonging for Latinx college students, it was negatively associated with a sense of belonging for White college students. Additionally, whereas interactions with diverse peers was found to be positively associated with belonging for both Latinx college students and White college students, these interactions influenced Latinx college students' sense of belonging more than White students. In his discussion, Strayhorn (2008) focused specifically on the relationship between interactions with diverse peers and the influence it had for Latinx and White college students' sense of belonging collectively. This particular finding, he argued, had implications for student affairs practice, such as developing policies that increased the frequency and quality of interactions between college peers of diverse backgrounds.

Antecedents of a Sense of Belonging with Other Racial/Ethnic Groups. Although this review has focused so far on only a small representative sample of studies that examined antecedents of a sense of belonging for Latinx college students (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008), there are other studies on college students' sense of belonging in the literature that have focused on other racial/ethnic groups. For example, researchers have identified that for Asian American college students attaining a sense of belonging could be understood as a continual process that required ongoing effort relating to both a sense of social belonging and academic belonging (Samura, 2016). This research also indicated that Asian American college students' sense of belonging is influenced by a variety of factors such as the campus racial climate, a sense of cultural compatibility with the campus culture, and experiencing the campus climate as supportive (Wells & Horn, 2015). Although nuanced, these findings are not dissimilar from those found with Latinx college students in the research just reviewed (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008).

In other studies, focused on African American college students, a sense of classroom belonging for African American undergraduate female students was highly impacted by whether or not they perceived their faculty member as accessible, approachable, and authentic (Booker 2016). In another study, a sense of classroom belonging for both male and female African American college students was the result of faculty instructional style, faculty interpersonal characteristics, students' perceptions of their connection to the faculty, and relationships with their peers (Booker, 2007). Strayhorn (2009), in line with his earlier investigation of Latinx/Hispanic students' sense of belonging (Strayhorn, 2008), also conducted a study with Black male undergraduates and found that interactions with diverse peers, particularly social interaction across racial/ethnic differences, was positively associated to belonging need fulfillment.

Another set of studies has focused on Native American college students, identifying that campus-level belonging for this college student demographic is highly influenced by interactions with faculty and diverse peers (Strayhorn et al., 2016), and that Native Student Centers on campus helped provide a localized sense of belonging for these Native American college students (Tachine et al., 2017).

Race/Ethnicity Group Effects and Belonging Antecedents Summarized. Hurtado & Carter (1997), Johnson et al. (2007), and Strayhorn, (2008) illustrate how Latinx college students' racial/ethnic identification influences what aspects of the college experience impacts their sense of belonging as well as to what degree. Belonging research with other student racial/ethnic groups has replicated this general effect as well, (Booker, 2007, 2016; Wells & Horn, 2015; Samura, 2016; Strayhorn et al., 2016; Tachine et al., 2017). Therefore, in line with the foundational research on school belonging in the K-12 setting (Goodenow, 1993a, 1993b;

Goodenow & Grady, 1993), students' sense of belonging at the college level is also influenced by important group differences like race and ethnicity. An important methodological implication of this finding is that researchers of college students' sense of belonging should continue to carefully attend to group differences in research design in order to better understand the experiences that impact a sense of belonging for specific college student groups.

These studies also collectively suggest several antecedents that impact college students' sense of belonging across racial/ethnic groups. Some of the antecedents found in the literature are characterized by the way they represent connections between college students and other individuals in the postsecondary environment, such as interactions with faculty (Booker, 2007, 2016; Hurtado & Carter, 1997; Strayhorn et al., 2016), interactions with diverse peers (Johnson et al., 2007; Strayhorn, 2008, 2009; Strayhorn et al., 2016) and membership and participation in social organizations (Hurtado & Carter, 1997).

Belonging Across Different Setting Levels and Setting Qualities

Aside from the interesting and complex ways that race and ethnicity influence college students' sense of belonging, research findings have also indicated that it is the intersection of these student characteristics across different setting levels and among different setting qualities that also impacts belonging need satisfaction (Hoffman et al., 2007; Freeman et al., 2007; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018; Strayhorn, 2008; Strayhorn, 2018). For example, in the early K-12 school belonging research, belonging was differentiated based classroom-level belonging (Goodenow, 1993a), and school-level belonging (Goodenow, 1993b; Goodenow & Grady, 1993). In the higher education research this differentiation has continued, with most research investigating either classroom-level belonging (e.g., Freeman et al., 2007), campus-level belonging (e.g. Hurtado & Carter,

1997; Slaten et al., 2018; Strayhorn, 2008), and to a lesser extent residence hall-level belonging (Johnson et al., 2007). In addition to setting levels, research has also indicated that specific qualities of these settings can influence a sense of belonging. In studies reviewed so far, Latinx college students who perceived the campus climate to be characterized by racial tension had decreased levels of belonging (Hurtado & Carter, 1997). First year college students of diverse backgrounds living in residence halls, where the climate was perceived as supportive of diversity, had higher levels of belonging (Johnson et al., 2007).

Living Learning Communities. Hoffman et al. (2002) is an example of another early study that explored whether living-learning communities could positively impact college students' sense of belonging. In the first part of their three-part study, Hoffman et al. (2002) conducted focus groups with a sample of first-year college students at the University of Rhode Island (URI), all of whom were enrolled in a mandatory freshman seminar course (URI 101). During the final two weeks of the six-week course 24 focus groups were conducted in class, 12 groups were conducted with first-year students who were part of a living-learning community and 12 groups with first-year students who were not. These living-learning communities were organized based upon a common interest in a non-major category, such as involvement in athletics, or a common interest in an academic major, such as business. Since focus group participant demographic information was not provided the racial and gender makeup of these groups is unknown. Additionally, the authors did not provide a focus group protocol with the questions that guided their discussion. However, Hoffman et al. (2002) did indicate that participants were asked questions about topics like peer relationships, experiences with faculty, participation in campus activities, changes and challenges faced since the start of the semester,

stressors in the collegiate environment, satisfaction with the University, and intentions to persist (p. 233).

Major themes that emerged from their qualitative analysis related to aspects of first-year students' relationships with peers and first-year students' relationships with faculty. Factors relating to first-year student peer relationships included students' perceptions of peer support, perceptions of peer academic support, and perceptions of personal comfort within the classroom environment. Student faculty relationship factors included first-year students' perceptions of the faculty as humane and compassionate, that participants believed they were valued by the faculty member, that they felt comfortable with the faculty member, and that they were supported by the faculty member (p. 233). In particular, Hoffman et al. (2002) found that first-year college students' sense of belonging was related to a sense of "being cared for and of being a member of a network of mutual obligation" (p. 237), where students were able to rely on relationships to aid, guide, and provide feedback on social and academic matters. Hoffman et al. (2002) also found that different settings were important for facilitating belonging through connections to others, noting that one of the main distinguishing characteristics between first-year college students who were members of living-learning community groups and those participants who were not was how the living-learning community setting helped support those students' abilities to form new friendships. First-year college students in these living-learning communities were able to develop relationships that allowed them to discuss academic-related matters both in and outside of class which increased their perceptions of support. The authors note that it was their opinion that the living-learning community setting, and not the seminar course setting, appeared to foster these peer-to-peer connections.

Following this qualitative investigation, Hoffman et al. (2002) developed an initial sense of belonging scale (SOBS) along the two primary dimensions of student/peer relationships and student/faculty relationships. This initial scale included 50 items exploring student/peer relationships, 50 items exploring student/faculty relationships, as well as other items that collected demographic information such as age, race, residency status, classroom environment (living-learning community or not), items relating to participants' satisfaction with their college experience, and items assessing their commitment to the university. Data was collected from a different sample of first-year college students (n = 205) enrolled in 17 general psychology sections in the spring of 2000. Within this sample, 144 participants were female and 61 were male, ranging from 18-20 years old. Racial/ethnic distribution for this sample was 85% Caucasian, 2% African American, 2% Hispanic/Latinx, 2% Asian, with 9% identifying as other. An exploratory factor analysis yielded a final Sense of Belonging Scale (SOBS) that measured belonging along five underlying dimensions: 1) perceived peer support, 2) perceived faculty support, 3) perceived classroom comfort, 4) perceived isolation, and 5) empathetic faculty understanding.

Although Hoffman et al. (2002) were focused on developing an instrument to measure belonging, this study also found that the first-year college students who were members of the living-learning community generally scored higher on their Sense of Belonging Scale (SOBS) than students who were not. When conducting *t* tests during scale development, they found a significant difference between the living-learning community students and non-learning community students on 47 of the 50 student/peer items and on all the 50 student/faculty items included in the initial scale. This indicated that for their predominately White sample of first-year college students, being a member of a living-learning community could have a significant

impact on college students' sense of belonging. Although the generalizability of these findings is limited due to the homogeneity of their sample, this study was impactful in that it suggested that the qualities of a specific setting, such as being a member of a living-learning community, could significantly influence belonging. Hoffman et al. (2002) suggested that these living-learning communities helped first-year college students develop relationships with their peers that allowed them to feel cared for by others, feeling these networks helped support them in both academic and social matters.

Development of the University Belonging Questionnaire. There have been other attempts to better conceptualize and define college students' sense of belonging at the university setting level. Slaten et al. (2014) were interested in exploring how college students themselves conceptualized the phenomenon of belonging in the postsecondary environment without relying on conceptualizations put forth in early school belonging research outside of the higher education context (Goodenow, 1993b). Noting that a portion of the college belonging literature at the time measured belonging through adapting instruments designed to assess K-12 school belonging (e.g., Freeman et al., 2007), Slaten et al. (2014) argued there were fundamental differences between the educational experience of a student in the K-12 context and that of a college students that would preclude this approach. For example, Slaten et al. (2014) noted that college students do not generally spend their entire day in the same building, creating difficulty in "pinpointing" how students meet their belonging needs within a complex set of dynamic institutional setting characteristics (p. 4). They suggested qualitative research was needed to aid in the development of a distinct measure of college student belonging.

Initial Qualitative Research. In their first study, Slaten et al. (2014) utilized a Consensual Qualitative Research design (Hill et al., 2005) to explore how college students

experienced a sense of belonging in the university environment. This approach to qualitative research relies heavily on a consensus process, whereby data, usually collected through semi-structured techniques like interviews, is explored through a method of analysis that arrives at “a common understanding of the data” among research team members, while “preserving the right of individual team members to hold different worldviews” (Hill et al., 2005, p. 200). CQR is a primarily constructivist approach to research, assuming that individual participants construct their realities and that multiple valid realities may exist. Therefore, research in this vein often explores whether there are commonalities among the experiences of participants, which is “another form of constructed reality” (p. 199). Generally, it is this inductive methods use of open-ended interview questions, small sample sizes, rich context, and focus on obtaining consensus among the research team that differentiates CQR from other qualitative frameworks (Hill et al., 2005).

Slaten et al. (2014) conducted semi-structured interviews with 11 participants from a predominately White undergraduate student body at a large Midwestern university. The researchers did not indicate how the participants were recruited, but the sample included five women and seven men. Seven of the students identified as White, while three students identified as Asian American, and one student identified as Black/African American. The distribution of grade levels across the sample was concentrated with students in their second and third years (first year, n = 1; second year, n = 5; third year, n = 3; fourth year, n = 1).

Analysis of the interview transcripts yielded four primary domains that the participants discussed in relation to university belonging, these included 1) valued group involvement, 2) meaningful personal relationships, 3) environmental factors, and 4) intrapersonal factors. The first domain, valued group involvement, reflected participants’ comments about how being

involved in a smaller group in some way helped provide a sense of belonging. The second domain, meaningful personal relationships, reflected participants' comments about how meaningful one-on-one personal relationship impacted their sense of belonging. Examples of these included relationships with a faculty member, an individual staff member, or a peer with whom the students held shared experiences. The third domain was environmental factors. This domain reflected comments by participants about factors like university culture, living contexts (e.g., on-campus residency or off-campus residency) and perceptions of the level of acceptance of diversity on campus, which all influenced their sense of belonging. Finally, students also discussed intrapersonal factors as the fourth domain. All the participants identified that intrapersonal qualities, for example individual characteristics like being open to forming new relationships with others, influenced their sense of belonging.

This qualitative study identified broadly that university belonging was influenced by factors relating to students themselves (individual characteristics), factors relating to physical as well as perceptual aspects of the institutional environment (e.g., living contexts or perceptions of the university culture), as well as factors relating to the relationships students developed with small groups and other individuals (faculty, staff, and peers). Slaten et al. (2014) posited that their study, and its identified domains, acted as evidence that the concepts of university belonging and school belonging in the K-12 context where conceptually distinct, although the authors did not articulate this argument further.

Scale Development. Following their inductive study, Slaten et al. (2018) developed a measurement instrument for university belonging called the University Belonging Questionnaire (UBQ). Their university belonging scale development project consisted of an exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). To develop their scale, Slaten et al.

(2018) first generated 91 items, comprising 10 separate components (i.e., meaningful academic work, student group affiliation, peer friendships, relationships with faculty/staff, university culture, personal student identity, classroom environment, living community, university affiliation, and academic major) informed by the four domains identified in Slaten et al. (2014) (i.e., valued group involvement, meaningful personal relationships, environmental factors, intrapersonal factors). Two expert faculty researchers in academic belonging then reviewed the items for face validity, readability, and theoretical validity and provided feedback to the research team, who then removed inconsistent items, resulting in a list of 40 items representing six general domains of university belonging (i.e., academic major, university culture, group affiliation, and peer, faculty, and staff relationships). Slaten et al. (2018) posited that these six domains encompassed the four domains originally identified in Slaten et al. (2014).

The researchers collected data from undergraduate students at a large Midwestern university in the United States (n = 421) from a sample that was relatively evenly split between males (n = 226) and females (n = 195). The grade level distribution of the sample was 20% first-year students, 26% second-year students, 20% third-year students, 23% fourth-year students, and 11% students enrolled beyond their fourth year. Ethnically, the sample population was predominantly White (80%), with Asian/Asian American students constituting the next largest ethnic group (11%).

An exploratory factor analysis was conducted (EFA) to examine the structure of the 40-item UBQ. Using Cattell's Scree Test (Cattell, 1966) to determine the number of factors to retain, the researchers then conducted an iterative process of removing items from the UBQ based upon the recommendations of Worthington and Whittaker (2006). Through this process the UBQ was reduced to a 24 item, three-factor model that accounted for 57.8% of the total

variance in the model. Some of the items removed related to questions about students' sense of peer social support, as well as group affiliation and engagement. The remaining items represented the three factors of University Affiliation, University Support and Acceptance, and Faculty and Staff Relations.

The subscale of University Affiliation was comprised of twelve items and measured the degree to which participants "associated their personal identity with their university" (p. 7). This factor accounted for 40.76% of the variance in the model. Specifically, the authors suggested that university affiliation aligned with the domains of valued group involvement and environmental factors (Slaten et al., 2014), and that a "student who takes pride in his or her university and identity as a student there, will also have a strong sense of university belonging" (Slaten et al., 2018, p. 7). For example, some of the items on this scale included, "I tend to associate myself with my school," "I take pride in wearing my university's colors," and "I am proud to be a student at my university."

The second subscale, University Support and Acceptance, was comprised of eight items that measured participants' "sense of support and acceptance from their university, particularly the university's ability to provide supportive resources and opportunities for student's personal growth" (p. 7). This factor accounted for 7.76% of the model variance. The researchers posited that the category of University Support and Acceptance stressed the important role perceptions of university services, opportunities, and support systems for personal growth and academic achievement can have on students' perceptions of belonging. For example, items for this subscale included "My university provides me an opportunity to grow," "I believe I have enough academic support to get through college," and "I believe there are supportive resources available to me on campus."

The final factor was Faculty and Staff Relations, which consisted of four items measuring participants' sense of connection to university personnel. This factor accounted for 5.96% of the variance in the model, and included items like "I feel connected to a faculty/staff member at my university," "I believe that a faculty/staff member at my university cares about me," and "I feel that a faculty member has valued my contributions in class." These three factors, University Affiliation, University Support and Acceptance, and Faculty and Staff Relations, were also reported as strongly correlated (University Affiliation with University Support and Acceptance, r = .65; University Affiliation with Faculty and Staff Relations, r = .47; and University Support and Acceptance with Faculty and Staff Relations , r = .48). The internal consistency of the 24-item UBQ was α = .94.

Using the new 24-item UBQ, Slaten et al. (2018) then conducted a confirmatory factor analysis (CFA) with a different sample of students. Participants for the second study were a distinct sample of 290 undergraduate students at the same university as the sample used in the exploratory factor analysis stage. This sample was similar in terms of gender, grade level, and race/ethnicity distribution to the sample used for exploratory factor analysis. For the CFA, the researchers also included several other scales from literature related to university belonging. These included a different university belonging scale (Sense of Belongingness; Tovar & Simon, 2010), a general belonging scale (General Belongingness Scale; Malone et al., 2012), a scale measuring perceived social support (Multidimensional Scale of Perceived Social Support; Zimet et al., 1988), a scale measuring social connectedness (Social Connectedness Scale; Lee & Robbins, 1995), and a final scale measuring loneliness (Three-Item Loneliness Scale; Hughes et al., 2004). The results of the confirmatory factor analysis indicated there was a good fit for the three-factor model. In addition to this, the internal reliability for the UBQ in Study 2 was

consistent with Study 1, α=.93. A hierarchical regression analysis was also conducted to determine the incremental value of the UBQ, and it was found that the three factors of the UBQ accounted for additional variance beyond the Sense of Belonging Scale (Tovar & Simon, 2010).

Through this scale development process, Slaten et al. (2018) identified three separate subscales of university belonging. The first was university affiliation, which was the largest subscale, defined as "a perceived sense of membership to the university that includes pride about demonstrating that one is part of a large group" (p. 15). A student conversing about their affiliation to the university or wearing university apparel, for example, would be indicative of university affiliation. Second, the authors found that student perceptions about university support and acceptance were important factors of university belonging. The third factor, faculty and staff relations, was consistent with research in higher education (see Pascarella & Terinzini, 2005) and other college belonging research (Hoffman et al., 2002; Hurtado & Carter, 1997; Strayhorn, 2008) that also identified the important role faculty and staff relationships have for fostering college students' sense of belonging and supporting student success.

Based upon this work, Slaten et al. (2018) argued that the concept of university belonging overlapped with belonging in the K-12 setting as it related to perceptions of faculty/staff relations and school support. However, the emphasis on university affiliation found in the UBQ suggested that for White and Asian American college students, belonging was influenced by more than just relationships with others, but also other forms of association with the university, which these authors presented as a sense of pride in demonstrating one's affiliation to the larger social group. So far, this relationship between affiliation and belonging at the campus-level setting is unique and has not been examined fully or replicated in belonging research conducted at other setting levels.

Limitations of the UBQ. There were some limitations to the work of Slaten et al. (2014) and Slaten et al. (2018) that warrant review. Slaten et al. (2018) noted that although their three-factor model fit well for the overall sample, decrements in the model fit were observed for separate gender groups, which they felt might be indicative of "qualitative differences in the way that men and women perceive their university environments" (p. 14-15). Slaten et al. (2018) also noted that the peer items important in Slaten et al. (2014) did not end up in the final scale developed for the UBQ. During conceptualization, the scale was composed of six elements which were then converged into three factors, with the items relating to peers being entirely excluded. They argued that perhaps peer relationships, although important to students, were separate from a student's sense of university belonging, thus emphasizing the university level setting over other possible settings. However, this claim is in direct conflict with both the early literature on school belonging by Goodenow (1993a, 1993b) and subsequent studies on college students' sense of belonging reviewed thus far (Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009), where supportive peer relationships and interactions with diverse peers were central facilitators of a sense of belonging for college students.

Additionally, Slaten et al. (2018) identified that university affiliation was the primary factor that accounted for most of the variance in university belonging. The emphasis on university affiliation found in the UBQ suggests that for college students, a sense of belonging was comprised of more than just relationships with college staff and faculty, but also other forms of association with the university as an entity, which these authors presented as a sense of pride in demonstrating one's affiliation with the campus community. However, this emphasis on university affiliation found in Slaten et al. (2018) is challenged by the theoretical

conceptualization of belonging presented in psychological research, which indicated that affiliation was a cursory element of the foundational conceptualization of belonging and in and of itself did not represent the substance of belonging (Baumeister & Leary, 1995; Deci & Ryan, 1985).

Therefore, in light of the decrements in model fit for gender groups, the heavy reliance on the subscale of affiliation, and the fact that items relating to peer social support did not achieve sufficient factor loading, it is hard to determine whether or not the university belonging scale adequately captures the belonging concept, especially among different student groups. Additionally, this line of research (Slaten et al., 2014; Slaten et al., 2018) did not account for findings related to race, grade level, or gender, generalizing antecedents of university belonging across a sample of college students of different demographic groups. This ignored potential effects first identified by Goodenow (1993b) and supported by other researchers of college belonging for how characteristics like race/ethnicity influence which experiences impact belonging in the college environment. (e.g., Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008).

Belonging Across Settings Levels. Although the college belonging literature has identified a number of setting qualities that impact college students' sense of belonging (Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007), and has explored belonging at different setting levels like the classroom level (Hoffman et al., 2002) and the campus level (Slaten et al., 2018), limited research exists that investigates the relationship between belonging across different setting levels. One study that has considered this relationship is Freeman et al. (2007), which directly tested the relationship between belonging in the classroom and belonging at the campus level.

Freeman et al. (2007) hypothesized that for college students, a sense of belonging at the classroom level would directly influence a sense of belonging at the campus level, what they called University Belonging similar to Slaten et al. (2018). Coincidentally, Freeman et al. (2007) was also one of the first studies to explore whether the findings from Goodenow's (1993a) early research on the relationships between classroom belonging and student motivation in the K-12 context held true in college setting. Based upon the findings from Goodenow (1993a), Freeman et al. (2007) hypothesized that college students' sense of belonging in a college course would be positively related to their motivation in that course, as well as their perceptions that their professors cared about them.

To test these hypotheses, the researchers collected data from first-year college students (n = 238) enrolled in a public university in the Southeastern United States. Students volunteered to be part of the study, and their sample was predominantly female (n = 162) and ethnically homogenous (Caucasian, n = 216). In their analysis, independent samples *t* test did not indicate any gender differences, and given their ethnic homogeneity of their sample, they did not examine ethnic group differences.

Both classroom belonging and university belonging were measured using adaptations of the Psychological Sense of School Membership scale (PSSM; Goodenow, 1993b). Classroom belonging was measured by assessing participants' subjective sense of belonging within the context of a specific college course. This scale included ten Likert-type items asking these first-year college students to indicate their level of agreement with statements like, "I feel like a real part of this class."

Perceived instructor characteristics at the classroom level, which Freeman et al. (2007) hypothesized would influence a sense of classroom belonging among first-year college students,

were measured using three subscales from the Student Perceptions of Learning and Teaching Questionnaire (SPLT; McKeachie, 1994). These sub-scales included teacher warmth and openness which consisted of ten items (e.g., "The instructor establishes a climate in the class that is conducive to learning"), student participation which consisted of five items (e.g., "Students discuss one another's ideas"), and instructor organization which included four items (e.g., "The instructor plans class activities in detail"). Together these subscales measured the specific pedagogical, social, and interpersonal aspects of a professor as experienced by first-year college students in the classroom.

The dependent variable, academic motivation in the classroom, was measured along three subscales adapted from the Motivated Strategies for Learning Questionnaire (MSLQ; Garcia & Pintrich, 1996). The first subscale was academic self-efficacy, which included eight items measuring students' perceptions of their ability to be successful in their college course (e.g., "I am confident I can learn the basic concepts taught in this course"). The second subscale, intrinsic motivation, used four items to measure how oriented students were towards participating in their class for internal reasons (e.g., "The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible"). The final subscale was task value, which used six items to measure students' perceptions for how valuable and useful they felt the academic activities they were participating in were (e.g., "Understanding the subject matter of this course is very important to me").

At the campus level, university belonging was also measured using an adaptation of Goodenow (1993b). Like the three-factor approach of the PSSM, which relied on the factors of teacher support, peer support, and general school belonging, Freeman et al. (2007) measured university belonging along three subscales: general university belonging, professors pedagogical

caring, and social acceptance. The subscale of general university belonging included four items with statements reflecting a sense of belonging to the university (e.g., “Sometimes I feel as if I don’t belong at this university”). The subscale of professor pedagogical caring at the university level measured students’ perceptions that their professors generally cared about their experience through six-items (e.g., “Most professors at this university are interested in me”). The subscale of university social acceptance assessed students’ perceptions that their peers and other members of the university accepted them. This subscale included five items with statements about feeling accepted in the university social environment (e.g., “I can really be myself at this university”).

In their analysis, Freeman et al. (2007) found that there was a significant positive relationship between participants’ sense of classroom belonging and academic self-efficacy ($p < .001$), intrinsic motivation ($p < .001$) and the value they attached to the academic subjects they were studying in the class ($p < .001$). This finding was consistent with Goodenow (1993a) which found that when adolescent and middle adolescent students experienced a sense of belonging in the K-12 classroom environment, they reported positive motivational beliefs about the value they ascribed to the academic work and the expectations they had for accomplishing their academic goals. The same relationship among variables held true in the college classroom setting.

Freeman et al. (2007) also examined how these predominately White first-year college students’ perceptions of their instructors’ practice were associated with classroom belonging. The results indicated that all three instructional characteristics, teacher warmth and openness, encouragement of student participation, and instructor organization, were significant predictors of White students’ sense of belonging in a class ($p < .01$). Instructors who were perceived as strongly encouraging participation in the classroom were found to be the most influential to a

sense of classroom belonging ($p < .001$). This finding was also consistent with Goodenow (1993a), who found that perceptions of teacher support were important for influencing students' classroom belonging.

Freeman et al. (2007) also tested whether a sense of classroom belonging could help advance a sense of university belonging. Their analysis of the relationship between these two levels of belonging was inconclusive. A significant association ($p < .001$) existed between classroom level of belonging and the subscale of general university belonging when considered alone. However, when the subscales of university-level social acceptance and university-level pedagogical caring were introduced into the analysis, the relationship between classroom belonging and general university belonging was no longer significant. When the other two factors, university-level social acceptance and university-level pedagogical caring, were considered independently with university belonging, students' sense of university-level social acceptance was found to be significantly related to general university belonging ($p <.001$), and students' perceptions of university-level pedagogical care was only marginally associated with general university belonging ($p = .056$). The researchers found that university-level social acceptance and university-level pedagogical care were too highly correlated to be in the same regression.

Freeman et al. (2007) were unable to clearly identify the relationship between college students' sense of belonging at two distinct setting levels, one at the classroom level and one at the campus level (university belonging). Although the relationship between classroom belonging and general university belonging correlated significantly, indicating some relationship between a sense of belonging at these two setting levels, other factors like university-level social acceptance and university-level professor pedagogical care attenuated this relationship.

Therefore, although their findings indicate some evidence that a level of association may exist between belonging at two different setting levels the nature of this association is still underexamined and not explicit. These findings suggest that future research must be careful to clearly consider and define the setting level at which a sense of belonging is being measured.

Summary of Group Effects and Setting Levels in College Belonging Research

Early work on school belonging (Goodenow, 1993b) stressed that a sense of belonging in the intermediate school context resulted from the nexus of individuals in particular educational environments. This broad conceptual framework holds true for a sense of belonging in college as well. The literature reviewed in this chapter indicates that the degree to which an experience in college influences a college students' sense of belonging is impacted by personal characteristics, such as a college student's racial/ethnic identity, grade level, or gender, and is impacted by specific setting qualities in the postsecondary environment, for example perceptions of racial tension or alternatively perceptions of supporting diversity (Hurtado & Carter, 1997; Johnson et al., 2007). Like Goodenow (1993a;1993b), this literature has also conceptualized and explored belonging occurring at varying setting levels, such as the classroom level and university level (e.g., Freeman et al., 2007). These finding indicate that the academic and social experiences that impact a sense of belonging for college students can be highly individualized given the diverse ecology of the postsecondary institutional environment and the wide degree of variability in the academic and social experiences that college students encounter.

However, that is not to say there are not consistent findings throughout this research across groups and setting levels. For example, the research has shown that experiences such as interactions with diverse peers (Johnson et al., 2007; Strayhorn , 2008, 2009; Strayhorn et al., 2016) and certain setting qualities like perceptions of a supportive climate at both the campus

level and in the residential hall (Hurtado & Carter, 1997; Johnson et al., 2007) can positively impact belonging across group differences. A particularly striking commonality across all of the studies reviewed thus far is that college students' sense of belonging is consistently influenced through academic and social experiences in college that foster interactions with faculty and college peers (Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten et al., 2014; Slaten et al., 2018; Strayhorn, 2008, 2009). This finding is consistent with the foundational conceptualization of belonging put forth by Baumeister and Leary (1995) and Ryan and Deci (2017) that conceptualized a sense of belonging as resulting from connections with others that were experienced as positive, frequent, stable, where one felt supported and cared for and contributed support and care in return.

A Review of the Conceptualization of Belonging in Higher Education Research

How belonging has been conceptualized at the college level warrants further discussion. As previously described, sense of belonging has shown to be affected by race/ethnicity (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008), faculty relationships (Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018), peer relationships (Hoffman et al. 2002-2003; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Slaten et al., 2014), grade level (Hurtado & Carter, 1997), gender (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008), setting level (Freeman et al., 2007), setting qualities (Hurtado & Carter, 1997), residence/living learning community (Hoffman et al., 2002), and climate (Hurtado & Carter, 1997; Johnson et al., 2007).

While there is variability across the findings of this research, there is some consistency in how belonging has been conceptualized as supportive relationships in the educational

environment, although there is some nuance to this as well. For example, the first studies on school belonging in the K-12 environment routinely conceptualized belonging as developmental support from adults (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993). The college level belonging literature has also focused on these developmental supports, examining supportive relationships between college students and faculty as well as college students and support staff. In general, these types of supportive relationships with faculty and support staff have been found to impact college students' sense of belonging (Freeman et al., 2007; Hoffman et al., 2002; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018, Strayhorn, 2008) although this impact was found to vary by race specifically among Latinx college students and White college students enrolled in the same institution (Johnson et al., 2007; Strayhorn, 2008).

Researchers have also investigated college peer-to-peer relationships, finding that peer relationships also impact college students' sense of belonging, although these findings also tend to vary (Hoffman et al. 2002-2003; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Slaten et al., 2014). Further, there are other distinctions in whether peer relationships were included in conceptualizations of belonging or not. In some studies researchers have treated college peer relationships as antecedents to belonging, independent variables that will influence belonging need fulfillment. For example, Hurtado and Carter (1997) investigated antecedents of belonging and found that interactions with peers discussing course content outside of the classroom and tutoring other students impacted Latinx college students' sense of belonging. In a similar study, Johnson et al. (2007) found that interactions with diverse peers helped foster a sense of belonging for Latinx/Hispanic first-year college students but not for other college student ethnic groups. Johnson et al. (2007) also treated interactions with diverse peers as an antecedent to belonging, not a component of belonging itself.

In contrast, other studies have included college peer relationships directly in their conceptualization of the belonging. Strayhorn (2008) specifically investigated peer relationship quality as a subscale of belonging and found evidence that interactions with diverse peers was positively associated with belonging for both Latinx college students and White college students, although these diverse interactions were more impactful for Latinx college students' sense of belonging. In later research, Strayhorn (2009) found that socializing with diverse peers was particularly impactful on Black male college students' sense of belonging and Strayhorn et al. (2016) found that interactions with diverse peers also had a positive impact on Native American college students' sense of belonging. In other research, Hoffman et al. (2002) also conceptualized peer support as a component of belonging and found that within the context of a first-year seminar peer support was an important contributing factor for a sense of classroom belonging, although racial and ethnic differences were not considered in this study.

Further, in another qualitative study, Slaten et al. (2014) found that college students' sense of college belonging was impacted by meaningful personal relationships, specifically through connections to peers with whom participants held a shared experience. However, in their follow up measure development (Slaten et al., 2018), items related to peer support failed to load as expected on any scale of their belonging measure and were not included in the final scale. Rather the factors of their final belonging scale were university affiliation, university support and acceptance, and faculty and staff relations. They posited that although peer relationships may be important for college students, they were perhaps unrelated to university belonging, a sense of belonging at the campus setting level. The study by Guiffrida et al. (2013) provides yet another angle through which peer relationships were conceptualized. They examined the role of peer relationships through a self-determination theory lens and found, counter to their prediction, that

motivation to attend college to form peer-to-peer connections had a negative impact on academic achievement for first-year college students and did not predict college students' intention to persist. In this case, the findings suggested that peers constrained academic goals. Taken together, this analysis suggests that even belonging when investigated through supportive peer-to-peer college relationships has also been conceptualized with variation across this literature (see Table 3).

Table 3

Conceptualizations and Operationalizations of College Belonging

Article	Scale	Setting level	Factors	Scale item examples
Goodenow (1993b)	Psychological Sense of School Membership Scale	K-12 - School Membership	NA	I feel like a real part of (name of school). Other students in this school take my opinions seriously. Most teachers at (name of school) are interested in me. I feel proud of belonging to (name of school).
Hoffman et al. (2002)	Sense of Belonging Scale	College - First-year Seminar Course	1.Perceived Peer Support	I could call another student from class if I had a question about an assignment.
			2. Perceived Faculty Support/Comfort	I feel comfortable seeking help from a teacher before or after class.
			3. Perceived Classroom Comfort	I feel comfortable volunteering ideas or opinions in class.
			4. Perceived Isolation	No one in my classes knows anything personal about me.
			5. Empathetic Faculty Understanding	I feel that a faculty member would be sympathetic if I was upset.
Hurtado & Carter (1997)	Adapted from Bollen & Hoyle (1990)	College - Belonging to campus community	NA	I see myself as part of the campus community. I feel that I am a member of the campus community. I feel a sense of belonging to the campus community.

Johnson et al. (2007)	Adapted from Hurtado & Carter (1997)	College - Belonging to campus community	NA	I feel a sense of belonging. I feel a member of the campus community. I feel comfortable on campus. I would choose the same college over again. My college is supportive of me.
Strayhorn (2008)	Adapted from Hurtado & Carter (1997)	College - Belonging to campus community	NA	Thinking of your own experience, rate the quality of your relationships with other (students/faculty/administrators).
Strayhorn (2009)	Adapted from Strayhorn (2008)	College - Belonging to campus community	NA	Thinking of your own experience, rate the quality of your relationships with other (students/faculty/administrators).
Strayhorn et al. (2016)	Adapted from Strayhorn (2008)	College - Belonging to campus community	NA	Thinking of your own experience, rate the quality of your relationships with other (students/faculty/administrators).
Freeman et al. (2007)	Adapted from Goodenow (1993b)	College - Belonging to the campus community	1. General sense of university belonging	Sometimes I feel as if I don't belong at this university.
			2. Perceptions of pedagogical caring from professors	Most professors at this university are interested in me.
			3. Social acceptance by others on campus	I can really be myself at this university.
		College - Belonging in a college course	NA	I feel like a real part of this class.
Slaten et al. (2018)*	University Belonging Scale	College - Belonging to the campus community	1. University Affiliation	I tend to associate myself with my school.
			2. University Support and Acceptance	My university environment provides me an opportunity to grow.
			3. Faculty and Staff Relations	I believe that a faculty/staff member at my university cares about me.

**Note:* In Slaten et al. (2018) peer relationship items did not sufficiently load and were dropped from the scale.

Mutuality in Supportive Relationships. When these examinations of supportive college student relationships are considered in light of the foundational conceptualization of belonging from the psychology literature (Baumeister & Leary, 1995; Ryan & Deci, 2017), one characteristic of meaningful relationships known to foster belonging that is not fully addressed is mutuality. Baumeister and Leary (1995) and Ryan and Deci (2017) clearly indicate that in a multidimensional conceptualization of belonging, need fulfillment is the result of relationships that are bidirectional, where all parties involved are both receiving and contributing support in a mutually beneficial manner. Thus, there are two primary types of supportive relationships college students develop that may possess this mutuality, faculty/staff relationships with college students, and college student relationships with other peers.

When examining the college belonging literature that has investigated relationships between faculty/staff and college students these relationships have so far been treated as unidirectional, with faculty/staff experts contributing support to the development of novice college students, similar to the conceptualization advanced in K-12 school belonging research (Goodenow, 1993a;1993b). However, it is worth noting that although it is possible that college students may come to care for and contribute support to faculty and staff over time, these relationships maintain the mentor and mentee quality, and as such may not fully capture the sense of mutuality as conceptualized by Baumeister and Leary (1995) and Ryan and Deci (2017). Alternatively, relationships between college peers might better reflect bidirectional relationships in the postsecondary environment characterized by a sense of mutual support among frequent, positive, and stable relationships (Baumeister & Leary, 1995; Ryan & Deci, 2017). However, none of the studies focused on peer relationships have yet employed a conceptualization of belonging that encompasses mutuality. That is, college students and their peers were not

considered as both giving and receiving support (Baumeister & Leary, 1995; Ryan & Deci, 2017), rather college students were treated only as recipients of support.

For example, across all three of their studies examined in this chapter (Strayhorn, 2008, 2009; Strayhorn et al., 2016), Strayhorn and colleagues specifically measured college students' sense of belonging by examining whether participants felt supported by peers, faculty, and offices and departments on campus, a unidirectional conceptualization of belonging need fulfillment. Hoffman et al. (2002) was perhaps the closest study to addressing this characteristic of dyadic mutuality finding that within the context of a first-year seminar, peer mutuality and reciprocity was represented by peer relationships where individuals perceived that all members could rely on the support of others to overcome academic and social challenges. This finding implied that individuals receiving support were also expected to contribute support to others, and as they explained, college students needed to connect to a network of "mutual obligation" (p. 237). However, Hoffman et al. (2002) did not identify the racial/ethnic makeup of their sample and did not specifically investigate or further explore how college students contributed support to these valued peer connections, again, examining only the support that was received by others in the first-year seminar and its association with belonging.

Consequently, relationships among college peers that may be most likely to reflect relationships characterized by positivity, frequency, and mutuality (Baumeister & Leary, 1995; Ryan & Deci, 2017) in the postsecondary environment have not been conceptualized as bidirectional relationships in the college belonging literature to date. Considering the findings that have linked college peer support as a unidirectional phenomenon of college students' sense of belonging, and the likelihood that mutually supportive relationships exist between peers in college, belonging experiences in college peer relationships is an opportune area of study for

further advancing a multidimensional conceptualization of belonging that incorporates peer mutuality in college-level belonging research.

Conclusion

The first section of this chapter differentiated the focus of research on college students' sense of belonging from other college student persistence frameworks. Whereas research on college student involvement (Astin, 1984) and college student engagement (Kuh, 2001) are more focused on examining the relationship between college students' behavior and matriculation, research on college students' sense of belonging is concerned with understanding how a sense of psychological membership to the institutional community is fostered through experiences in college, and how a sense of belonging consequently influences how students invest their time, energy, and effort to the college experience. In the college student persistence literature, a sense of belonging is most closely connected to the idea of student integration (Tinto, 1975), where a sense of congruence with the institutional environment through connections with faculty, staff, and peers is predictive of student persistence and matriculation.

Section two of this chapter examined self-determination theory, exploring a motivational framework underlying the research on college students' sense of belonging. This psychological needs-based motivational theory provides a framework for understanding how experiencing belonging or alienation, conceptualized as the fulfillment or constraint of a fundamental psychological need, is functionally related to how students experience effort towards developmental behaviors that have been linked to matriculation. This framework also helps explain how the satiation of the need to belong enhances a student's ability to internalize the external controls often imposed upon them in the educational environment which in turn also impacts behavioral quality. Understanding this framework broadens our conceptualization of the

student persistence process, since self-determination theory provides a conceptual framework for connecting research on college students' belonging need fulfillment to research on college student persistence by linking this psychological need fulfilment to college students' subsequent self-regulated behavior.

The third section of this chapter focused on exploring the foundational conceptualization of the belonging need in the psychological research (Baumeister & Leary, 1995; Ryan & Deci, 2017), identifying that belonging is a psychological need underlying motivation that can be understood as a state of being or experience that is beyond mere affiliation, but rather has a threshold characterized by stability, positive regard, frequency of interaction, and perceptions of both receiving and providing support, whereby an individual both gives and receives in a mutually beneficial and reciprocal manner. Additionally, this section reviewed early research on school belonging that was the first to isolate the belonging need and identified important group effects relating to gender, race/ethnicity, grade level, and relative newness to a group for how belonging need fulfillment impacted students in the K-12 setting. Also, in these early empirical investigations of classroom and school belonging (Goodenow, 1993a, 1993b; Goodenow & Grady, 1993), belonging was operationalized as supportive developmental relationships where individual students were the recipients of support from teachers and peers in the school environment.

The final section of the chapter reviewed the extant literature on college students' sense of belonging, examining what is known about belonging in the collegiate context. This review identified that college student sociodemographic factors influence which experiences in college, both social and academic, influence college student sense of belonging and to what extent. This review highlighted race/ethnicity group effects, although the literature clearly shows that other

aspects of college student characteristics interact to impact belonging as well. This section also reviewed research that identified that belonging in college is experienced among different setting levels and is influenced by different setting qualities. As Strayhorn (2018) notes, a sense of belonging for college students arises from this "complex interaction of forces" (p. 24), relating to both college students themselves, various settings within the residential college environment, as well as qualities of these settings. This literature review lends support to this claim.

Finally, how belonging has been conceptualized in the college student belonging literature was also reviewed, with a specific investigation of which dimensions of belonging have received the most attention in research. This review found that the mutuality dimension of belonging has been underexamined in this literature given that most research on college student belonging to date has conceptualized belonging as receiving support from others in a unidirectional manner. None of the studies in the literature reviewed here have investigated supportive faculty relationships (e.g., Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018) or peer relationships (e.g., Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009; Slaten et al., 2014) as bidirectional, where college students are not only the recipients of support but mutually contribute support to others in return.

Considering this, the goal of investigating mutuality, how college students give and receive support in the college environment, suggests the need to focus on peer-to-peer developmental relationships which are reflective of adult mutual relationships. As noted earlier, mutuality and reciprocity are less likely to be evident in developmental relationships that are characterized as a mentor-mentee relationship, for example relationships between teachers and students in the intermediate school setting or faculty/staff and college students in the

postsecondary setting. Within these relationships there is an institutional expectation that teachers and faculty provide support to students to assist in their development, learning, and growth. Rather, it is more likely that college student relationships with peers, reflecting adult-to-adult relationships, would exhibit belonging need fulfillment through mutuality and reciprocity as defined by Baumeister and Leary (1995) and Ryan and Deci (2017).

However, beyond their conceptualizations of belonging, the studies that have specifically looked at peer-to-peer relationships have mixed findings. Johnson et al. (2007) found that interactions with diverse peers were only impactful for Latinx first-year college students and not for other ethnic groups. Strayhorn (2008) found that interactions with diverse peers was impactful for belonging need fulfillment across both Latinx and White college students, although these interactions influenced Latinx college students more. Strayhorn (2009) found that interactions across racial/ethnic difference, particularly socializing, was positively associated with belonging for Black undergraduate males. Strayhorn et al. (2016) found that interactions with diverse peers impacted Native American college students' sense of belonging. Hoffman et al. (2002) found that in the first-year seminar context, perceptions of peer support impacted college students' sense of belonging, although this study did not control for race. Another qualitative study (Slaten et al., 2014) identified that meaningful peer relationships influenced a sense of belonging, but items relating to peer relationships failed to load during a later scale development study (Slaten et al., 2018). Guiffrida et al. (2013) studied peer relationships through a self-determination theory lens and found these connections negatively impacted academic achievement.

Therefore, in addition to examining mutuality, the varied findings from studies investigating college student belonging in college peer relationships suggest that more research

on this phenomenon in general is needed. Further, beyond the somewhat mixed findings regarding the effects of peer interaction across diversity with college student sense of belonging (Johnson et al., 2007; Strayhorn, 2008, 2009; Strayhorn et al., 2016), and the relationship between college student belonging and supportive peer relationships in a first-year seminar course (Hoffman et al., 2002), very little is currently known about the development and character of these peer relationships that influence college student motivation and behavioral quality (Ryan & Deci, 2017). Therefore, there is a need in the literature to better understand this phenomenon particularly regarding how belonging is experienced and described by college students themselves in peer relationships in college.

The findings of this review of the literature inform the overall purpose of this study, to contribute to the current college student belonging literature through investigating how college students themselves describe experiences of belonging in peer-to-peer relationships, relationships understood through this literature review to be characterized by frequency, positivity, and a sense of mutuality which has so far been a dimension of belonging underexamined in this body of research. The next chapter discusses the overall research design and methodology employed to achieve this end.

Chapter 3: Research Design

This chapter outlines the overall research design of this study, including the methodology of phenomenology that guided this work and the subsequent research methods employed. Further, this chapter also outlines the careful attention that was paid to the researcher's positionality throughout this research, describing the efforts undertaken to control for the ways that positionality could negatively impact the research endeavor, especially regarding participant recruitment, data collection, and data analysis. Finally, this chapter ends with a discussion of the strategies used to enhance the trustworthiness of this study's findings.

Research Question

This study was guided by the following research question:

RQ: How do first-year college students perceive and describe experiences of belonging in peer-to-peer relationships in their first semester?

The primary components of this question are "how," "perceive," "describe," "experience," and "belonging." Consistent with the suggestion of Moustakas (1994), some of this terminology is briefly discussed to lend clarity to how it was used. The term "how" was selected since it indicates an openness to whatever would emerge through data collection about belonging with college peers. The phenomenon of interest, "belonging," was understood as relationships/friendships or connections with peers characterized by frequency, positivity, and mutuality. "Perceive," was a term used to represent an individual sense of belonging need fulfilment among the study participants. Since phenomenological research seeks for rich description of a phenomena as experienced by the individual, the term "describe" was also used to elicit the language participants employed to portray the phenomenon. The term "experiences"

acted holistically, aligning with the phenomenological aim of situating experience as the foundation for understanding a phenomenon in the lifeworld (Moustakas, 1994).

Methodology

Qualitative Design

To explore how undergraduate college students perceived and described their experiences of belonging with peers in the first semester of college a qualitative research design was employed. As Denzin and Lincoln (2011) note, qualitative research "consists of a set of interpretive, material practices that make the world visible" (p. 3). Whereby quantitative research often identifies relationships between variables, qualitative research can be employed when there is a need to investigate phenomena where variables are not easily identifiable nor easily measured (Creswell & Poth, 2018). The current body of empirical research on college students' sense of belonging and interactions with peers justified the need for a qualitative study. Although there is empirical evidence of a positive association between college student belonging and interactions with peers (Johnson et al., 2007; Strayhorn, 2008, 2009; Strayhorn et al., 2016), and belonging with supportive or friendly college peer relationships (Hoffman et al., 2002; Strayhorn 2008, 2009; Strayhorn et al., 2016) these findings do vary and currently our knowledge about the quality and character of these college peer relationships is limited.

For example, Hoffman et al. (2002) found evidence for a relationship between perceptions of peer support and classroom sense of belonging among first year undergraduate students in a first-year seminar course. In another qualitative study Slaten et al. (2014) also identified interpersonal relationships with peers as a component of college students' sense of belonging. However, in the subsequent development of a measure of university belonging, items relating to peer relationships did not load as a factor and were dropped (Slaten et al., 2018). In

other empirical research, Johnson et al. (2007) found that interactions with diverse peers helped foster a sense of belonging for Latinx/Hispanic first-year college students but not for other college student ethnic groups. In contrast, Strayhorn (2008) found evidence that interactions with diverse peers was positively associated with belonging for both Latinx college students and White college students, although these diverse interactions were more impactful for Latinx college students' sense of belonging. Further, Strayhorn (2009) found similar results in a study conducted with Black male undergraduate students where interactions with diverse peers influenced participant sense of belonging, and belonging was particularly impacted by socializing with peers of a different race. In a later study, Strayhorn et al. (2016) found that interactions with diverse peers also had a positive impact on Native American college students' sense of belonging.

Therefore, more research was needed to examine the qualitative nature of this phenomenon. To meet this need, this qualitative study was oriented towards understanding how college students themselves described these experiences and the meaning they ascribed to these experiences, especially in relationships conceptualized as bidirectional, where support was experienced in a mutual way. Further, collecting data from those individuals that experienced the phenomenon themselves supported the depth at which these experiences could be investigated (Patton, 2015).

The Philosophy of Phenomenology and Phenomenology in Qualitative Research

This study also specifically employed a descriptive phenomenological research design. A phenomenological research approach was appropriate for this study since phenomenology focuses on describing the common meaning and lived experiences of participants relating to a particular phenomenon of interest (Creswell & Poth, 2018). Phenomenology, as an approach to

qualitative research, is directly informed by phenomenology as a philosophic discipline. Consequently, it is important to briefly discuss how the ontological and epistemological aspects of this philosophy inform certain methodological assumptions for this research.

The philosophy of phenomenology developed in part as a response to Cartesian dualism and is most associated with the work of Edmund Husserl and his publication of *Logical Investigations* at the turn of the twentieth century (Vagle, 2018). Prior to Husserl, Descartes had espoused a philosophic orientation towards dualism, where the subjective mind and the objective world were disconnected from one another. This dominant paradigm of western philosophic thought informed years of positivist scientific inquiry, framed by the idea that truth and knowledge existed outside of the subjective mind, and were only derived by observable and measurable evidence in the objective natural world. Contrary to this dualism and the separation of the subjective mind from the objective world, Husserl asserted that the mind and objects in the world were always existing in relation to one another. As Vagle (2018) notes:

> Husserl suggested that living and experiencing neither take place "in" the subject (the human), nor "in" the objects (everything outside the human, including other humans). Living and experience take place in the intentional relationship between the subjective and the objective – and this "between" space is ever expansive. (p. 8)

Thus, Husserl's main criticism of the positivistic scientific disciplines of his time was the application of natural science methods to researching human phenomenon (Laverty, 2003; Vagle, 2018). Husserl felt that human beings did not live in a natural world, but rather in a lifeworld that encompassed human experience. Hence the study of human phenomenon required a method of inquiry that rested upon lived human experience and did not artificially separate consciousness and human experience from the objects in the natural world. Husserl asserted that

human consciousness was always "of" something, and as Vagle (2018) notes "consciousness does not exist as a thing one does or as something one possesses" (p. 7). Although this change may not seem so pivotal to researchers today given the wide use of phenomenology for research, Husserl was arguing for a prolific change in thinking regarding the epistemological, ontological, and methodological assumptions that had guided scientific research for centuries (Laverty, 2003; see Table 4).

Table 4

Core Assumptions for Positivist (Cartesian) and Constructivist (Phenomenological) Research Traditions Adapted from Laverty (2003)

Assumptions (questions)	Positivist	Constructivist
Ontology (What is the form of nature and reality?)	Reality is something 'out there', which can be understood as being apart from ourselves.	Multiple realities exist that are constructed and altered by the knower. Realities are not more or less true they are more or less informed (Denzin & Lincoln, 2000).
Epistemology (What is the relationship between the knower and what can be known?)	Duality, there is a separation between the object of inquiry and the inquirer.	The object under investigation and the investigator are inextricably linked (Denzin & Lincoln, 2000). To separate the two would likely result in the loss of knowledge about human experience and meaning making.
Methodology (How can the inquirer go about finding out whatever they believe can be known?)	Methods are used to ensure the absence of the investigators influence or biases, which are seen as a threat to validity.	The aim is to understand the reconstruction of experience and knowledge, to dig deeper into everyday phenomenon. Thus, an investigator interacts with research participants to bring to light these experiences, and issues of reliability are examined through rigor, trustworthiness, credibility and authenticity (Laverty, 2003).

Note. The language used in the Assumptions (questions) column is cited in Laverty (2003) as the phrasing presented by Lincoln & Guba (1985).

As a frame for inquiry, Husserl argued that human experience and meaning, the "intentional relationship between the subjective and objective", was the building block of knowledge, that inner knowledge based upon intuition and the grasping of the essence of phenomena actually proceeds empirical knowledge (Moustakas, 1994). Husserl believed that the essence of a phenomenon could be grasped if individuals were able to turn their consciousness towards an object in their mind and engage in a process where they left behind their natural attitude and cultivated a phenomenological attitude. Important to Husserl's process was the phenomenological reduction which is described in phenomenological research as bracketing. Vagle (2018) defines phenomenological reduction as "suspending one's own judgment of the existence and pre-understandings of things outside of the human mind, so that phenomenon can be studied in their givenness to consciousness" (p.14). Thus, in methodologies arising from the Husserlian tradition, bracketing is intricately related to how a researcher approaches data for analysis, and furthermore, researchers are not studying either the subjective experience of participants nor the objects in the natural world, but how a phenomenon manifests within the intentional relation between the two. As a result of this, the phenomenology of Husserl has also been labelled as transcendental since an individual transcends human consciousness to identify the essence of an object in the lifeworld. It is worth noting that there has been some considerable debate among scholars regarding what Husserl meant by the term essence (Vagle, 2018).

Another philosophical tradition in phenomenology that warrants a brief discussion is the work of Martin Heidegger who followed in Husserl's footsteps but broke away from Husserl in an ontological sense (Vagle, 2018). Heidegger's work, which informs hermeneutical phenomenological research, is considered a more interpretivist phenomenological approach and is advocated by current practitioners like Van Manen (2016). Although Heidegger and Husserl

both sought to develop a method of inquiry that uncovered the lifeworld and human experience they departed strikingly in their ideas about consciousness and how phenomena manifested themselves (Laverty, 2003). Laverty (2003) notes that Husserl was primarily concerned with reconceptualizing the relationship of the knower to the known world, whereas Heidegger more deeply questioned the truth of what can be known about reality. Heidegger argued that phenomenon show themselves in the world, and that our consciousness exists in the world, so rather than bracketing the world out we must interpret the meaning of phenomenon for ourselves based upon our contextual relations to the world around us (Smith, 2016). Vagle (2018) notes, "For Heidegger, a phenomenon was not so much a 'thing itself' that resided in intentional consciousness, but was 'brought into being' in the day-to-day contextualized living in and through the world" (p. 9).

Although this distinction may seem subtle it has deeply impacted how phenomenology is conducted as a qualitative research practice. Whereas more descriptive phenomenological approaches in the Husserlian tradition focus on the use of bracketing as part of phenomenological reduction to identify an essence of a phenomenon, hermeneutic phenomenology in the Heideggerian tradition sees phenomenological research as a continual interpretive practice where the researchers do not try to bracket out the world but bracket out presuppositions as a researcher grapples with and interprets data (Vagle, 2018). Osborne (1994) argues that the specific methodology used during research design should reflect the underlying philosophy selected. Thus, discussing these perspectives at least in brief has been important for clarifying the philosophical grounding of this research as a descriptive phenomenological study in the Husserlian philosophic tradition.

The Descriptive Phenomenological Method for Psychology

The actual methods utilized in this study for data collection and analysis were adapted from the descriptive phenomenological method for psychological developed by Giorgi (2009). Although this phenomenological approach shares the same philosophic orientation as Husserl and employs methods that are like other descriptive phenomenological approaches, such as data collection through interviews, bracketing to ensure phenomenological reduction, and the horizontalization of data in to meaning units, there are several points of differentiation identified by Giorgi (2009) for his approach that are important to review due to their influence on this research.

First, as mentioned earlier, the term "essence" has been heavily debated across phenomenological research, and rather than employing this term Giorgi (2009) instead uses the term invariant structures to identify what, from a psychological perspective, this approach to phenomenology seeks to uncover. Invariant structures can be understood as those structures of a phenomenon that emerge eidetically from the data and represent meanings of the phenomenon that do not vary through time or context. As Vagle (2018) notes, invariant structures are like the term essence, but this terminology does not carry the same "philosophical baggage." Thus, this research did not seek to identify "essence", but the invariant structures of belonging in peer-to-peer college relationships in the first semester that emerged eidetically from the research in the tradition of Giorgi (2009).

The second way Giorgi (2009) informed this work was through his position on phenomenological reduction. Husserl and other descriptive phenomenological methods have called for the use of bracketing to "transcend" the conscious mind (Moustakas, 1994). As Vagle (2018) notes, "transcending one's consciousness in order to study the consciousness of others is

a tall order" (p. 58). Giorgi (2009) does not go this far and suggests that researchers attain a level of "psychological (or scientific) phenomenological reduction", stating "with this reduction, the objects of experience are reduced (that is, reduced to phenomena as presented), but the acts of consciousness correlated with such objects belong to a human mode of consciousness" (p. 98). The researcher aligned with this approach, identifying that although it was important to bracket understandings and past experiences to be able to view and analyze the collected data from a fresh perspective, this analysis was still using the researcher's human consciousness to study the consciousness of others, and thus could not reach a level of transcendental reduction that goes beyond the researcher's own human consciousness as advocated in other methods such as Moustakas (1994).

Finally, the use of semi-structured interviews for data collection and the subsequent data analysis techniques employed, such as identifying meaning units within the data, and developing psychological reflections and general insights based upon these meaning units, were also adapted from Giorgi (2009). These data analysis techniques are outlined in detail later in this chapter and were employed because they were developed by Giorgi (2009) for psychology which aligned well with this investigation of a psychological experience, experiencing belonging need fulfillment with college peers.

Positionality

Researcher positionality influences the entire qualitative research endeavor (Merriam et al., 2009), and so, it was important to consider how researcher biases, values, experiences, and even interest in this research topic could influence this study (Creswell & Poth, 2018). Prior to entering the field and conducting any data collection or analysis, the researcher reflected on how he came to be interested in the topic of college student belonging and wrote a positionality

statement to help consider the possible ways his positionality could impact this research. What follows is what was written during that initial reflexive process and is presented here in the present tense and from the first-person perspective as it was written initially. It has also been italicized for clarity. Although this exercise was undertaken during the initial research design stage, this level of cognitive reflexivity was practiced throughout the entire research process.

Arriving at Belonging

My interest in studying college student belonging was the result of a broader interest in better understanding college student attrition across higher education in the United States. Early in my career I worked as the director of an evening, weekend, and online satellite campus for a four-year non-profit private university. In that role I often encountered college student attrition firsthand. I worked almost exclusively with what would be considered non-traditional college students; adult students over the age of 24 who usually possessed either a two-year degree or some credit and no degree. These students were enrolled in our institution because most of them desired a flexible evening and online program that could help them balance work, school, and their personal lives while they worked towards completing their four-year degree. Often, I would be working with students who were facing academic probation or suspension, were considering withdrawing from college due to personal reasons, or had simply stopped attending class.

It seemed like college student attrition was all around me, although my own personal experience in college was much different. I attended a highly selective, well renowned private liberal arts college immediately after high school and graduated in four years. I never once thought that I would not earn my degree although some classes were quite rigorous and challenging. Among my peers, it is hard to recall more than one or two students I knew that left school. Even in my senior year, when my older brother died unexpectedly, I still intended to and

did graduate with my peers that spring. Reflecting on these personal and professional experiences created a striking contrast in my worldview and challenged me to accept the reality that my college experience was not necessarily representative of some universal college experience. I began to reflect even more deeply on this realization. Whereas many students I worked with discussed college as a daunting challenge, I always saw college as a fun adventure and the next step in my life. Although it could be rigorous at times, I never once perceived it as an endeavor that I might fail. Whereas many of the students I worked with would talk about whether they belonged in college, I never once questioned whether I belonged in school. Going to college was something I had talked about my entire life. Both my parents have college degrees, and my father, who is a minister, even completed an advanced doctorate in divinity. Additionally, all my siblings earned a baccalaureate degree. Whereas many students I worked with would often withdraw due to any number of personal reasons, I reflected on the fact that my older brother had died unexpectedly my senior year, and I never once considered not finishing my degree with my peers although this experience was emotionally devastating.

Reflecting on these experiences I began to consider the nature of college student attrition more deeply. What was the difference between being forced to leave, choosing to leave, or choosing to stay in school? One particularly striking observation about this phenomenon from my perspective as a higher education administrator was that although I knew that poor academic performance and personal struggles were often antecedents of college student departure, there were many students I worked with who encountered similar issues and persisted. Based on these observations I became less interested in understanding the reasons why college students withdrew and more concerned with understanding what it was that caused college students to stay, to exhibit resilience in the face of challenge, to persist.

Intuitively I felt that motivation was important for persisting through challenge, however I lacked the foundation for understanding what influenced motivation. After examining several theories of motivation, I became interested in self-determination theory (Deci & Ryan, 1985), which outlined how behavioral qualities associated with varying types of motivation was in fact the result of psychological need satisfaction, and that psychological needs were either constrained or fulfilled in the social context. Consequently, this led me to further reading on the nature of human motivation, psychological needs, and subsequently a focus on the need to belong.

Thus, my arriving at belonging was in fact a journey in and of itself, where reflecting on my personal experiences in college, in contrast to what I encountered as a professional working in higher education, led me down a path of inquiry that shaped my interest and focus on the role of psychological needs and college student success.

Positionality Statement

I identify as a White, heterosexual, middle-aged male who socioeconomically would be considered middle class. I politically affiliate as a democrat and embrace liberal political ideologies. I have extensive graduate education and am employed as an administrator in a four-year university. I also identify as a researcher and scholar who is passionate about understanding the nature and impact of belonging on college student success.

My positionality may affect or influence my research, especially in relation to potential study participants, in the following ways:

1. *As a researcher my positionality may be perceived as authoritative by college student participants since their experiences are the subject of my research.*

2. *As a college administrator my positionality may be perceived as authoritative by college student participants in my study due to the institutional authority inherent in administrator and college student relations.*
3. *As a White researcher and administrator my positionality may be perceived as dominant or hegemonic by potential participants that are non-White, since I represent the majority culture in the context in which my study is situated, across higher education in the United States, and even society at large.*
4. *As a male researcher my positionality may also be perceived as dominant by female participants since I represent a traditionally male dominated space in academia, and the sociohistorical context of the United States is steeped in inequities among women and men.*
5. *As a scholar of college student persistence my positionality may be perceived as threatening or dominant, since participants may feel that my education places me in a position to exercise my scholarly voice over their lived experiences, acting to dehumanize their story.*
6. *As a liberal white male, my positionality may be perceived by participants of color as a "white savior" who might misrepresent the voice of my participants in order to appease any sense of "white fragility" or "white guilt".*

Reflecting on the potential impact of my positionality suggests that a crucial need in this study is to remain attuned to the voice of those I engage and negotiate knowledge creation with during the research process. My positionality for several reasons may foster a perception of authority or mistrust with my participants. Consequently, it is crucial in my research that I do not let my dominant voice or dominant perspective overpower or unintentionally oppress the

voice and perspective of female participants, participants of color, or those who may see my position as an administrator in higher education as one exercising power. Additionally, my positionality as a scholar studying college student success also potentially influences this research. Although I may desire to frame and interpret the data I collect in terms of the theories, frameworks, and literature I have studied, I will need to be resolute in bracketing out my perspective and interpretations of the phenomenon under consideration during the data analysis process.

Finally, it is important to identify that my political beliefs deeply shape what I am passionate about and how I interpret the world. I am passionate about many issues relating to social justice, diversity, equity, inclusivity, and belonging in the college environment. I have worked in this area both professionally and have studied this area as an interested scholar. This passion and commitment to supporting social justice, especially in higher education institutions, needs to be bracketed from the research process to mitigate the risk of letting my positionality and voice, driven by my passions, overpower and misrepresent the voice of my participants.

Methods

Study Context

Teherani et al. (2015) notes that "qualitative research is the systematic inquiry into social phenomena in a natural setting" (p. 669). In this vein, this qualitative study was not concerned with a general sense of belonging but rather a sense of belonging as it manifested in peer-to-peer college relationships in a postsecondary institutional community which helped demarcate the natural setting and time in which this study was situated. Therefore, data for this study was collected in a postsecondary institutional environment. Specifically, the data for this study was collected at a private, four-year university, given the pseudonym Riverside University, during the

fall semester of 2021. Riverside University is located in an urban metropolitan area in the midwestern United States. Riverside University enrolls approximately 7,800 full-time undergraduate students, and 93% of first-year students live on campus in residence hall communities. Riverside University is a private, religiously affiliated institution comprised of seven different colleges and two professional schools and is classified by Carnegie as an R2 research institution meaning that it has high research activity.

As of the fall of 2021, when participant recruitment and data collection began, most undergraduate students at Riverside University were White (67%), with Hispanic/Latinx students comprising the second largest racial/ethnic group (15%), followed by Asian students (6%) and Black students (4%). Of all fulltime undergraduate students, 55% were female and 44% were male. Although the national six-year graduation rate for private non-profit institutions is approximately 68%, Riverside University's most recent six-year graduation rate was 80% and has remained consistently in this range over time. The most recent first to second year retention rates and six-year graduation rates for these primary ethnic/racial student populations at Riverside University are presented below in Table 5. Additionally, most participants for this study were recruited from Riverside University's College of Business, so I have also chosen to include retention and graduation rate data specific to that college. Detailed race/ethnicity data was not available at the college level.

Table 5

1st to 2nd Year Retention & 6-Year Graduation Rates at Riverside University

Riverside University				
Undergraduate Race/Ethnic Group	First-year Student Population Totals (Fall 2022 Cohort)	First to Second Year Retention (Fall 2022 Cohort)	First-year Student Population Totals (Fall 2017 Cohort)	Six-year Graduation Rate (Fall 2017 Cohort)
Asian	116	91.4%	132	86.4%
Black	120	85.0%	91	68.1%

Hispanic/Latinx	293	89.4%	330	74.2%
White	1,334	93.0%	1338	82.9%
Riverside University College of Business				
Undergraduate Race/Ethnic Group	First-year Student Population Totals (Fall 2022 Cohort)	First to Second Year Retention (Fall 2022 Cohort)	First-year Student Population Totals (Fall 2017 Cohort)	Six-year Graduation Rate (Fall 2017 Cohort)
White	296	86.7%	261	NA
Students of Color	88	100%	75	NA
Total	400	90.8%	336	83.3%

Participant Criteria

This study sought a purposefully representative sample of first-time, full-time undergraduate students of varying racial/ethnic background and gender on Riverside University's campus. Given that the experience of belonging varies by grade level (Hurtado & Carter, 1997) this study's sample was limited to first-year students. First-year students were chosen as the focus of this study for several reasons. Belonging is a psychological need that is either constrained or fulfilled through connections to others within the social context, and the first year of college represents a period in the college student life cycle that a sense of alienation or a sense of belonging may be particularly salient. Based upon empirical research on school belonging (Goodenow, 1993b; Goodenow & Grady, 1993), Strayhorn (2018) posited that belonging takes on a heightened sense of importance in certain contexts, such as being a newcomer to an established community. Tinto (1988) notes that it is at the outset of college, within the first six weeks, that college students are most likely to experience marginality on campus. Therefore, as newcomers to the institutional community, the first year of college and the first semester provided a salient context for exploring the relationships between interactions with peers and a sense of belonging.

Additionally, it is also during this important transition to college that the establishment of new peer relationships are likely to form. First-year college students navigate a diverse

ecological environment when coming to college, exploring and establishing norms of social interaction and behavior, which foster new relationships with other peers, be that in the residential community, in the classroom, or in other extracurricular and social settings. In their study with first-year students Hoffman et al. (2002) found that the development of peer relationships was essential for fostering belonging, and that first-year students in living-learning communities developed relationships that allowed them to discuss academic-related matters both in and outside of class which increased their perceptions of support. Johnson et al. (2007) found that African American, Hispanic/Latinx, and Asian/Pacific American first-year college students all reported a lower sense of belonging than their Caucasian/White peers, and that interactions with diverse peers was positively associated with belonging for Hispanic/Latinx college students. Given the important developmental transition that first-year college students undergo, and that many students develop new relationships with peers upon arriving at campus due to the ending or alteration of former peer relationships caused by physical separation and differences in life goals (Paul & Brier, 2001), the first year and first semester provided a critical context in which to examine college students' sense of belonging with college peers.

Several other criteria for participation were also identified. Participants for this study were required to be living on campus in Riverside University housing. Like the reasons outlined for focusing on first-year, first semester college students, this study is focused on those students who were transitioning from living at home to living on campus. This transition again created a context in which the need to belong was likely more present or salient. Additionally, residence halls are important settings in the postsecondary institutional environment where first-year students often interact with new peers. In addition to living on campus, study participants were not student athletes. A sense of belonging can be experienced at different setting levels and

across different setting qualities in the postsecondary institutional environment (e.g., Freeman et al., 2007; Hoffman et al., 2002). Student athletes may already perceive a sense of belonging to a group of peers on campus prior to the first semester due to their involvement with an athletic team and recruitment to Riverside University for athletic competition. This could have impacted the saliency of belonging experiences in the first semester compared to peers that were not formally connected to a peer group when they arrive on campus, so athletes were excluded. These participant criteria are outlined in Table 6.

Table 6

Study Participant Eligibility Criterion

Criteria 1	Participants had to be first time, full time undergraduate students at the university.
Criteria 2	Participants had to be living in an on-campus residence hall community.
Criteria 3	Participants were not student athletes.

Recruitment Protocol

Prior to recruiting study participants, the researcher also considered the ethical implications of being an employee and an administrator at Riverside University. The potential benefit of being employed by Riverside University was that the researcher had an insider status that helped facilitate access to first-year student populations. However, with that access and insider status, it was also important that specific considerations were made considering the potential perceptions of participants. There are inherent power relations evident in staff researcher and student participant studies, reflective of the natural power relations between college faculty and staff and students in that developmental context. Faculty and staff can exercise institutionalized administrative authority over students in the college environment, and

without careful consideration and tact, potential student research participants may feel forced or coerced to participate in research due to this authority. From an ethical perspective determining how to recruit participants in a manner that did not intentionally or unintentionally exercise power over prospective participants was important for this study (Creswell & Poth, 2018). It was ethically right and essential that participants agreed to be part of the study through their own free will and not because of the researcher's professional role within the institution or any perception of coercion.

To that end, the protocol for recruiting participants was designed to mitigate any potential power relations by paying keen attention to how messages and communication about this study were constructed. Specifically, the intent of this strategy was to position and reaffirm in a clear way that the study emanated from the researcher's academic interests and requirements as a doctoral student at a different institution, not as an employee of the institution in which the study was being conducted. Therefore, all communication via email to participants was conducted through the researcher's student email account not his official Riverside University email account. Additionally, all communication to potential participants made sure to establish this distinction clearly (see Appendix A-B). It is also worth noting that in addition to utilizing carefully crafted messaging, one advantage of the researcher's role with the institution was that this role was primarily external facing, meaning the researcher had limited interaction with students enrolled in Riverside University's College of Business daily. The advantage of this was that the researcher did not have a presence in the classroom, in other students support areas, or in extracurricular activities that involved students regularly. This fact also aided in creating a firm distinction between the researcher's role as a doctoral student and as an employee of Riverside

University administration. Alternatively, if the researcher had been in the classroom and interacting with students regularly this role distinction may have been opaque.

Participants for this study were recruited from three sections of a first year, first-semester mandatory business course that was required of all declared business majors at the institution. After obtaining institutional approval from Riverside University to conduct research with first-year students, faculty who were teaching a required first-year business fundamentals course in the fall of 2021 were identified. Each faculty member was emailed with a request to present to their section of the class to explain the purpose of the study and to seek voluntary participants. Recruitment efforts yielded seven participants who volunteered to be interviewed for this research. In addition to these classroom visits, and to enhance the diversity of the participant sample, the researcher also worked to recruit participants from a specialized program that served first-generation college students from financially disadvantaged backgrounds. The researcher reached out to the academic coordinator for this program, explained the purpose of the study, and the coordinator helped disseminate information about the study to the program's incoming cohort of first-year students. An additional three participants from this cohort volunteered to be interviewed, totaling 10 study participants in all (N=10). Of these 10 participants, six self-identified as Caucasian or White (n=6), two self-identified at Black or African American (n=2), one self-identified as Hispanic/Latina (n=1), and one self-identified specifically as Eritrean American (n=1). Six of the participants identified as female (n=6) and four identified as male (n=4). The demographic data for these participants can also be found in Table 9.

Data Collection

Data for this study were collected through one or more semi-structured interviews during participants' first semester in college from September 20th to December 2nd of 2021. This study

utilized a shortened adaptation of the three semi-structured interview approach (Seidman, 2019) over the course of the first semester. Seidman (2019) suggests the three-interview approach allows for context, experience, and meaning to be more fully explored. Given the concern for overburdening first-year students in their first semester of college, the researcher chose to use two interviews instead which still yielded adequate data for analysis. This approach, rather than a single interview approach, was selected for this descriptive phenomenological study for three reasons. First, it allowed the researcher the opportunity to build rapport with the participants over time, a crucial component of this study and important for conducting interviews for phenomenological research (Giorgi, 2009). Compared to a single interview encounter, two consecutive interviews offered more time for the researcher to develop a trusting and communicative relationship with participants. Increasing levels of rapport and trust aided the depth at which an interviewer was able to explore a participant's experiences in the second interview, which also helped elicit more rich and descriptive data. Second, this two-step approach allowed the researcher to design each interview encounter in a more nuanced way with a focus on 151ifferrent aspects of the participant's experiences with the phenomenon under consideration such as context, actual experiences with a phenomenon, and the meaning of those experiences (Seidman, 2019). Finally, using a two-interview protocol provided the researcher the opportunity to explore participants' new experiences with belonging as it occurred over time between subsequent interviews. The focus of these two interviews as part of this comprehensive phenomenological interview process is reviewed here briefly.

Interview 1: Background, Context, & Early Belonging Experiences with Peers. According to Seidman (2019), the first interview should be focused on learning as much about the participant as possible, helping to develop a context in which their experiences are situated,

and additionally to build early rapport between the interviewer and interviewee. Although this first interview acted as the beginning point for collecting data on participants' experiences with the phenomenon under investigation, it also was a starting point for being able to investigate experiences more deeply in the second interview. Therefore, in the first interview the researcher focused on building early rapport with the participant, gaining early access to participants experiences with the phenomenon, and setting the stage for further data collection in the second interview where these early belonging experiences with peers as well as new belonging experiences with peers were considered more deeply. Thus, the interview questions for this first interview focused on discussing students' backgrounds, friendship quality and belonging need fulfillment prior to transitioning to college, and early belonging experiences in peer-to-peer college friendships. The questions that guided the first set of interviews are outlined in Table 7.

Table 7

Questions Guiding Interview I

Interview questions	Question objective/purpose
Tell me a little bit about yourself and your choice to come to [university name]? Which dorm are you living in? Do you have any friends from high school here? I would like to hear about how you have gotten involved on campus and with peers. Have you joined or considered joining any student organizations? What is your typical week like? How do you tend to balance your schoolwork with hanging out with friends and connecting with your family? Tell me about a couple of your close friendships in high school?	The purpose of this series of questions is to start to build some context around the participant's life experience, specifically how they came to be enrolled in the university, and how they are handling navigating early experiences in college so far. It also leads to questions that begin to focus more on peer relationships and developing friendships in the university environment. This set of questions also allows the participant to tell their story and begin to situate themselves as the expert which will help build rapport and allow for richer data collection throughout the interview process.

What type of friendships are you developing here so far?	
Well, this is a good segue into my next set of questions where I'd like to hear more from you about the friends you have made here now. Can you describe for me who your friends are that you met here at [university name] and how you met? What characteristics of your friendship with [name(s)] do you value? Tell me about this friend (characteristics, race, gender, background)? How do you spend time together, what activities do you do? Are there aspects of college life that you have explored together? Can you describe any new things you have tried here together? When did you get a sense that you and [name(s)] were connected? Can you describe a particular experience where you felt connected with [name(s)]? Tell me about how your friend supports you and how you support your friend? Can you think of a specific incident and describe it for me?	This set of questions begins to focus more directly on friendships that the student is developing in college. It probes the qualities and characteristics of these friendships, descriptions around the activities these peers do together within the postsecondary institutional environment and elicits descriptions of experiences where participant's felt connected, supported, and contributed support to another peer.
In the same vein as my last question, when thinking about coming to [university name], what have you found stressful or challenging in these early weeks? Can you describe a more specific example of that for me? How did you overcome that challenge? Can you describe how your friends, or any particular friend, helped you with overcoming that challenge? Have you helped your friend [name(s)] with a challenge?	The purpose of this final set of questions is to identify and describe the experiences early in the first semester that gave these participants stress or challenged them, and the role of their peers in helping them overcome that stress or specific challenge.

Interview 2: Belonging Experiences with Peers Continued. Having established a framework for understanding the context of the individuals' participation in college, their past

friendship quality, their emerging belonging need fulfillment with new peers in the first semester, and having built a level of rapport with the participants, the second interview in this approach was focused more directly on investigating the participant's belonging experiences with peers and the meaning participants ascribed to these experiences as well as potential changes among their close peer relations over time. The second interview, compared to the first, was oriented in this way to help elicit rich descriptions of these experiences with as much detail as possible. Therefore, for the second interview questions explored the character and nature of the participant relationships as they developed over time, serving the purposes of understanding how participant's relationships had evolved, or even lessened or dissolved, since the first interview, whether new friendships have been developed, how peers describe receiving and contributing support in these relationships, and how participants describe their relationships with others in light of their sense of connection to the university. This focus on eliciting rich description aligned well with the descriptive phenomenological research approach for psychology (Giorgi, 2009), helping participants and the researcher "discover the extraordinary" (Van Manen, 2016) through reflecting upon what are normally considered ordinary experiences. Interview questions that guided second interviews are outlined in Table 8.

Table 8

Questions Guiding Interview II

Interview Questions	Question Objective/Purpose
The first time we met, we talked a little bit about your friendship(s) with [name(s)]… How has your friendship evolved or changed with [name(s)] since we last met? • How are you spending time with [name(s)]? • What kind of activities? • What qualities are you appreciating about [name(s)]?	The purpose of this set of questions is to learn about how the participant's relationships with their peers have evolved or even lessened and dissolved since the first interview. Working through each of the participant's friends that were discussed should elicit richer contextual detail and description around their friendship, including what they do and what is the nature of the support that is given and received.

Last time we talked a little bit about this incident where you felt connect and supported by [name(s)] (or vice versa)… please tell me about any situations that have occurred since we last talked that stand out to you. • Can you describe exactly what happened? Are there any new friends you have made since we last talked that you feel connected to? • Can you describe this friend? • What characteristics or qualities stand out about them? • What type of activities do you do together?	Additionally, this set of questions addresses new friends, and similar to interview 1, works to better elicit a description of these newer relationships, what activities these students engage in together, what are the qualities and characteristics of these friends that stand out, and how the student experiences being supported or contributing support to these new peers.
Describe for me the biggest hurdle you have had to overcome since coming to [university name]? Describe for me the role your friends played in helping you through that? How did you feel about that? Describe for me the biggest hurdle you think your friend group had to overcome since coming to [university name]? Alternatively, when you think back was there a particular challenge that one of your friends encountered that seemed difficult that you would be willing to describe? How did you help you or even your friend group help them overcome this challenge? How did being able to help your friend make you feel? Finally, anything you'd like to tell me about your college experiences so far in relation to your friend group and your sense of being connected to being here at [university name]? I'd like to thank you for your time. For the purposes of the study how would you like your gender and ethnic identity to be represented? Along the same line, how do you think [friend name(s)] would like their gender and ethnic identity represented?	This final set of questions is meant to identify and describe what the participant perceived as a core challenge to being a first-semester college student and the role friendships played in overcoming that challenge while also describing the feelings that experience elicited. It also looks to explore and describe how the participant reciprocated support to one of their own peers, and to describe how that reciprocation made them feel. This section ends with an open-ended question, allowing the participants to describe for me their thoughts on how their friend group influenced their sense of connection to being in college at that specific university.

Techniques Used to Address Researcher Positionality in Data Collection. The researcher as a White male was interviewing across racial/ethnic and gender differences. From a functional standpoint the interview is an interaction between two or more people based on conversation (Rubin & Rubin, 2012; Warren & Xavia Karner, 2015). However, interviews are not only communicative practice but also a process through which knowledge is produced (Brinkmann & Kvale, 2015; Gubrium et al., 2012). For example, in discussing postmodern trends in interviewing Borer and Fontana (2012) note, "both the interviewer and respondent negotiate and work together to accomplish the interview, the resulting 'data' being as much a product of the interview participants' collaborative effort as of the experiences under consideration" (p. 57). Consequently, in exploring the research question that guided this study, the researcher and participants were engaged in negotiated work to bring forth their experiences of belonging and mutuality with college peers.

Therefore, the task of interviewing individuals of a different gender or race required the researcher to consider with intent and purpose how their positionality and the potential power that positionality conveyed could have impacted the interview context and participants both within and across cultural divides (Meriam et al., 2001). For this study, two strategies were employed to help mitigate the impact of researcher positionality on the data collection process.

Building Researcher-Participant Rapport. Building rapport and establishing trust with study participants is crucial to not only overcoming potential cultural barriers (Sands et al., 2007) but also forming a trusting relationship which can influence how deeply an interviewer can access participants' experiences (Seidman, 2019). Three tactics were used to assist in building rapport. First, Shah (2004) suggests that educating and preparing oneself with some level of the cultural knowledge about the participant and their worldview can help the interviewer

communicate in a strategic and reassuring way that helps participants feel more open to communicating with a researcher during the initial recruitment phase or the interview itself. Consequently, for this study and prior to recruitment the researcher worked to build knowledge surrounding the experiences of White, Latinx/Hispanic, Asian, and Black undergraduate students in both the urban metropolitan region in which the university is located as well as on Riverside University's campus.

Second, as discussed earlier, during the recruitment process the researcher made sure to give the participants many opportunities to ask questions about the study and to express any concerns they may have had. Sands et al. (2007) found that miscommunication regarding the logistics of the interview (e.g., miscommunication about the timing and location of the interview), and opaqueness surrounding the topic of the interview infused uncertainty into the interview context prior to the actual interview, creating reluctance at first on the part of the interviewee. This step was crucially important since the researcher's positionality and race/ethnicity may cause trepidation among potential participants to be honest about their experiences with peers and belonging in the institutional environment.

Finally, this study used a longitudinal data collection process, a two-interview process adapted from Seidman (2019). This extended time provided more opportunity for the researcher and interviewee relationship to develop a strong rapport.

Centering the Participant as the Expert. In addition to building rapport with the interviewee, Sands et al. (2007) has also argued that one of the main methods for overcoming potential barriers in the context of a cross-cultural interview is to conduct the interview in a skillful way that works to alter the positionality of researcher to the respondent. If the interviewee can begin to see themselves as the authority and expert on the topic under

consideration, it can fundamentally enhance the communication process (Sands et al., 2007). Therefore, after establishing initial rapport through recruitment and the pre-communication on the focus of the interview, the researcher attempted to limit interjections, especially during first interviews, so that participants were established as the experts of their own experience, and careful attention was made to only interject in ways that validated the experiences of participants (Mizok et al., 2017). Additionally, after the researcher felt rapport has been built, the researcher when appropriate offered information about themselves, since this opening of dialogue has also been argued as important for interviewers and interviewees since it helps create avenues for participants to find commonalties across differences (Rubin & Rubin, 2012) which can further enhance trust. Finally, the researcher made sure that all interviews occurred at a neutral location. The researcher's office was avoided intentionally, and all interviews were conducted at the Riverside University library.

Study Participants and Data Sample Summary

In total, initial interviews were conducted for the 10 participants during late September and early October of 2021. Approximately seven weeks later, follow-up interviews were conducted for seven of the original 10 participants in late November and early December of 2021. Three of the original participants never returned requests for a second interview. Beyond the initial requests for a second interview, further attempts were not made to contact these three participants for two primary reasons. The first was that by the end of data collection for second interviews the fall semester was almost over. Further interviews would have needed to be conducted in the second semester, which was not the period of focus for this study. Additionally, a review of the data from the second interviews, in addition to a review of the data from the first set of interviews, indicated data saturation. Further interviews would not necessarily have

provided value-added additional insights. Pseudonyms, demographic data, and information on whether one or two interviews were conducted for each participant are listed in Table 9. In total, data were collected through 17 interviews that ranged from 40 to 60 minutes each. Approximately 7.5 hours' worth of interview audio was recorded and transcribed into text, yielding a significant and substantial amount of data for review and inclusion in analysis. The entire data set was de-identified prior to analysis.

Table 9

Study Participant Information

Participant #	Pseudonym	Self-identified race/ethnicity	Self-identified gender	Number of interviews (1 or 2)
1	Melissa	White/Caucasian	Female	2
2	Alan	White/Caucasian	Male	2
3	Trish	White/Caucasian	Female	2
4	Paul	White/Caucasian	Male	2
5	Gabriella	Latina/Hispanic	Female	2
6	Amy	White/Caucasian	Female	1
7	Craig	White/Caucasian	Male	2
8	Desaree	Black/African American	Female	2
9	Steph	Black/African American	Female	1
10	Aman	Eritrean American	Male	1

Data Analysis

To begin the data analysis process, the researcher sought to bracket out his own knowledge regarding college student sense of belonging to separate his own experiences from what was being studied (Creswell, 2003). Following this bracketing, the researcher then read participant interview transcripts in their entirety to get a sense of the whole as advocated by Giorgi (2009). It became clear from this review of transcripts that the experiences being described by participants were varied and diverse, with participants describing experiences that occurred within several different domains of college life (e.g., the classroom, the dorm room, the

residence hall, orientation events, social gatherings, athletic events, off campus trips) and with a variety of peers (e.g., roommates, friends from home, peers met through orientation groups, classmates, neighbors in the residence hall). Due to this complexity and to better understand the data that had been collected, the researcher decided to analyze the data using an iterative and inductive coding approach to better explore the constitutive elements of the experiences being conveyed. This analysis was completed prior to conducting any phenomenological analysis of the data using the methods developed by Giorgi (2009).

Coding for Constitutive Elements. For this initial process, three rounds of coding exercises were conducted. The first round of coding was descriptive and focused on identifying the structures of the experiences being conveyed, such as who participants were interacting with, in what settings these experiences were occurring, and what the experiences themselves entailed. The second round of coding utilized an in vivo coding approach (Saldaña, 2016) to highlight and capture in the researcher's mind the specific language participants themselves were using to describe these experiences. The third round of coding was open coding and was used to help the researcher narrow in on what seemed to be important to participants about the experiences described in the data. The progression through these three rounds of coding was not planned, but rather resulted from an iterative process of investigating and reflecting on the data. The detailed findings of this process are reviewed in chapter four.

Phenomenological Data Analysis. Building upon the insights gained from analyzing the data for constitutive elements of the belonging experiences with peers in the first semester of college, the next phase of data analysis was conducted to explore the psychological meaning of the experiences being described by participants to identify the invariant structures of the phenomenon under investigation. To do this, several processes were adopted from the descriptive

phenomenology techniques for psychology developed by Giorgi (2009). These processes included: 1) identifying meaning units across the data, 2) conducting psychological reflections on those meaning units, 3) identifying insights from these reflections and exploring their generalizability across participants and interview time periods, and 3) utilizing free imaginative variation to identify the invariant structures descriptive of belonging experiences with peers in the first semester of college. The overall intent of this process was to allow the invariant structures of the phenomenon to emerge eidetically from the data, moving from the concrete, such as what exact terminology was used by a participant in their interviews, to the invariant, a focus on the underlying and deeper psychological meaning participants were trying to convey (Wertz et al., 2011).

Identifying Meaning Units. The first step in the phenomenological analysis process was to identify the meaning units in the data for analysis (Giorgi, 2009). Meaning units are blocks of text that express a self-contained meaning based upon exploring different key terms, aspects, attitudes, and values, and are demarcated by the researcher (Giorgi, 2009). The researcher reviewed all the interview transcripts and demarcated meaning units keeping in mind the research question under consideration. In total, 211 individual meaning units were identified.

Developing Psychological Reflections. Once the meaning units were identified, the analysis turned to developing psychological reflections for each meaning unit identified. The purpose of this step was to attend to the psychological processes under investigation, specifically by examining what each individual meaning unit revealed, before beginning to develop more general knowledge, exploring generalization across participants, and engaging in the use of free imaginative variation (Wertz et al., 2011). Below is an example of a meaning unit from the data

and its corresponding psychological reflection written by the researcher (see Table 10). This process was conducted for all 211 meaning units.

Table 10

Example Psychological Reflection

Meaning unit	Researcher's psychological reflection
Steph: Well, we became friends off ramen noodles. So, it was the summertime and my parents, we forgot to go grocery shopping, and I was like "I really just want some noodles." So, I came back to my dorm room later that night with a target bag with two packs of noodles. So, the next day, because we had been talking about it and joking and I kept saying I wanted noodles, and then after that we just kind of gravitated towards each other based on our love for food. And then as we talked about food we got into other conversations, and we just realized we had a lot of the same experiences, a lot of the same thoughts and feelings about things. So, it felt nice to have somebody who like understood me, you know? On a different level rather than just being minorities. Also, she is a nursing major as well, so going into a White dominated field, she is from [CITY] but having some of the same experiences in the sense that she has family in Gary and I have family in Gary, and so with that our connection just grew… and then we just hung out. Cause at [SCHOLARS PROGRAM] we were just always around each other. Interviewer: So, what were you doing? Steph: Eating, studying, going on 7/11 runs together because we were at the [DORMITORY], so our 7/11 runs were nightly or Papa Johns, we were just always together doing things together. If I went to the rec to play volleyball she would go there and watch me play or watch two of my closest friends James and RJ, she would watch us play.	Steph notes interestingly that they became "friends off ramen noodles." Although this may seem silly, she is describing the genesis of their friendship as relating to a shared experience that happened to revolve around food. That created a connecting point, from which they began to talk and learn more about each other. They identified shared experiences, thoughts, and feelings, which are the result of sharing on a more personal level. She even comments that it was nice to connect on a different level beyond both identifying as minorities on campus. This again supports this idea that meaningful relationship in the first few weeks of college are those relationships that move beyond a certain threshold and allow students to communicate and share about themselves and their stories in a more personal way.

Interviewer: She didn't play? Steph: No, she did cheer but she just would be there. And so, things like that. And next thing you know we got here to school and uh I was really afraid that a lot of my friendships over the summer would just disappear. It was actually quite the opposite we spend almost every day together. All of us. So, we watch movies, we go for walks, we 7/11 runs again, to Qdoba runs, things like that. So, we are always together.	

Developing General Insights. After psychological reflections were developed for each meaning unit, the researcher continued the eidetic process by developing a list of general insights for each individual participant. These general insights were then compared across participants in order to begin to explore what structures of these experiences were invariant across participants. It is also important to note that during this step the general insights developed using data from the first round of interviews were kept separate from general insights developed using data from the second round of interviews. This was done for methodological reasons. Conducting separate analyses across both individual participants and interviews from time one to time two allowed the researcher to examine the generalizability of the emerging invariant structures not only across participants but also across time. A comparison of the general insights across participants and across both interview times indicated that the data was generalizable and could be considered together.

Free Imaginative Variation. After determining generalizability free imaginative variation (Moustakas, 1984), a mental exercise where the researcher considers the phenomenon from varying perspectives in order to grasps the structures of a phenomenon, was used to identify the invariant structures of the phenomenon that were evident across all participants (Giorgi,

2009). Four invariant structures of college student peer belonging experiences in the first semester emerged from the process and a description was developed for each. These findings are reviewed in chapter four.

Trustworthiness

Prior to turning to the findings of this research, it is important to discuss several methodological choices that were made to enhance and maximize the trustworthiness of this phenomenological design. Aligning with the validation strategies suggested in Creswell and Poth (2018) this research design used researcher reflexivity, a data analysis audit, and rich thick description to ensure trustworthiness.

Reflexivity. Reflexivity is an important component of this research design. At the outset of this chapter researcher positionality was disclosed and discussed to understand the position from which this research was undertaken. Additionally, bracketing was an important component of the data analysis process and required the researcher to continually consider their own experiences, biases and values regarding the phenomenon under consideration. Throughout the research design and its execution this positionality was deeply considered which has been outlined throughout this chapter.

Data Analysis Audit. A data analysis audit was also completed. After analysis was completed and the invariant structures of the phenomenon were identified, the researcher engaged a peer doctoral candidate experienced in qualitative research and analysis to check this data analysis work for consistency. In line with the recommendations of Lincoln and Guba (1985), this colleague was provided excerpts of raw data (i.e., original transcripts), reduced data and analysis products for each stage of analysis (i.e., constitutive coding examples, meaning units and psychological reflections, eidetic notebooks, general insights developed from

participants, synthesized invariant structures and descriptions), methodological process notes, as well as a preliminary draft of findings. The auditor conducted the same multi-stage analysis explained in this chapter using the materials provided and, in general, agreed with the coding and invariant structures identified, indicating an acceptable level of consistency in the researcher's analysis of the data. From a purely methodological standpoint, the auditor did suggest that the researcher could consider incorporating more distinct psychological perspectives (e.g., intrapersonal, interpersonal, and social psychological dynamics) into the analysis of psychological meaning to potentially yield slightly more nuanced results. The suggestion was considered but not acted upon for this study.

Rich, Thick Descriptions. Rich, thick descriptions were sought to maximize trustworthiness in this study. Creswell and Poth (2018) note that these types of descriptions allow "the readers to make decisions regarding the transferability of the study because the writer describes in detail the participants or settings under study" (p. 263). Additionally, in the case of phenomenological research, detailed description helps the reader more clearly understand the phenomenon after data is analyzed (Moustakas, 1994). Throughout this study the researcher sought full and detailed descriptions in a variety of ways. Considerable effort was made to provide detailed descriptions of the participants and setting for this study. The researcher also sought to maintain appropriate rich and thick descriptions throughout the data analysis process. For example, after conducting an initial analysis for identifying constitutive elements, the researcher reconstituted the data into lengthier and more descriptive excerpts for meaning units which were then utilized for the phenomenological data analysis stage. Further, in the discussion of the findings found in chapter four, this study utilized quotes and active participant voice as a

means to enrich the descriptions of experiences with the phenomenon and to more fully describe the invariant structures identified through this research (Creswell & Poth, 2018).

Chapter 4: Findings

The purpose of this study was to explore how first-year college students perceive and describe experiences of belonging in peer-to-peer relationships in the first semester of college. To accomplish this, a descriptive phenomenological research design was used to describe the invariant structures (Giorgi, 2009) of these experiences, that is, the elements of the phenomenon of college belonging with peers that is universal and experienced by all participants (Eddles-Hirsch, 2015). However, prior to conducting a phenomenological analysis of the data, a three-step coding process was also used to help the researcher better understand what type of data had been collected. This findings of this initial coding exercise are discussed in detail first, specifically what each approach in sequence revealed about that data and how that informed subsequent analytical steps.

Coding for Constitutive Elements

Descriptive Coding

To begin this process of better understanding the data the researcher went through each transcript and identified significant statements (Creswell, 2007). Since the intention of this phase in the data analysis process was not to focus on psychological meaning, but rather the constitutive elements of the experiences described, these significant statements were generally those passages that demarcated where an interaction was taking place, with whom, and what that experience entailed. In total, 410 significant statements were identified. Utilizing similar criteria, the researcher then applied descriptive codes to each significant statement to categorize the data. As each significant statement was reviewed the researcher considered whether that excerpt was

primarily a description of an experience with a specific person (e.g., an interaction with a roommate), an experience within a specific domain (e.g., an experience in the classroom or in the dormitory), or a description of a more general experience (e.g., developing new connections, receiving, or providing peer support) and coded accordingly. Five significant statements were removed from the sample after they were not easily assigned to an existing code and did not warrant the creation of a new code. Additionally, a short summary statement was written to accompany each code.

In total, this descriptive coding process yielded a set of 21 different codes. An example of this coding process can be found in Table 11.

Table 11

Example of Significant Statements and Descriptive Codes

Significant statement	Descriptive code(s)
So naturally my friend group of just four people my age at least, expanded to fifteen/sixteen. So, I found it really easy to get socially adapted, especially since [UNIVERSITY] is such a tight knit community and they have a good orientation system, so I felt at home within the first day.	Friend Group – stability in membership
A lot of people in my dorm, I'm in [DORM NAME], 5th floor. It is not even really my floor I hang out with; it is people on 3rd floor, or 6, 8, it is all around	Dormitory – exposure to other people
I have one friend who I didn't even know yet, Adam knew him, he went to high school half a mile from me. So, we met him and his roommate and his friend and, again, my roommate because his sister is a senior here, he used to visit, so he had another friend, then I met someone, then we all just introduced you to everyone, similar to how any friendship would work, so now we have a group of like 15.	Developing New Connections – meeting friends of friends
Actually, quite a bit. In terms of just exploring the campus I feel like the first month is transition to college, finding that friend group… even just simply like trying every dining hall, where we like	Friend Group- exploring campus together

to go, where we like to hang out, the [LOCATION] or [LOCATION].	

Additionally, Table 12 lists out these codes, their descriptions, and indicates the frequency of how often each code appeared across all the significant statements identified.

Table 12

Descriptive Code Categories

Code	Category description	# of times applied	% of total codes applied
Developing new connections	Statements that were specifically addressing the process of developing new connections or “friends” in the first semester of college.	91	22.5%
Friend Group	Statements that specifically discussed experiences relating to membership in a group of friends.	53	13.1%
Roommate	Statements that specifically addressed experiences with roommates.	49	12.1%
New Friend	Statements that addressed experiences relating specifically to a new friend, or an emerging peer relationship.	43	10.6%
Support Received	Statements that addressed support participants received from others.	22	5.4%
Friendship Characteristic	Statements that addressed specific characteristics of friends.	21	5.2%
Support Provided	Statements that addressed support participants provided to others.	21	5.2%
Experience with Diversity	Statements that discussed experiences with diversity among peers.	17	4.2%
Proximity	Statements that described physical proximity of peers to one another.	13	3.2%
Classroom	Statements that were described in relation to their setting in the classroom environment.	12	3.0%
Frequency	Statements that addressed the frequency of interaction between peers.	11	2.7%
Dorm Room / Dormitory	Statements that were described in relation to their setting in the dorm room or broader dormitory environment.	9	2.2%
Mutuality	Statements that specifically described a characteristic of mutuality among peers or their friend group.	8	2.0%
Specialized Academic Program	Statements that described membership in a specialized academic program.	8	2.0%

Intramural Sports	Statements that described membership on an intramural sports team.	5	1.2%
Time	Statements that addressed the duration of a connection with a peer.	5	1.2%
Challenge	Statements that specifically described a “challenge” encountered by students during their transition to college.	4	<1%
Orientation	Statements that addressed experiences through college orientation.	3	<1%
Type of Involvement	Statements discussed a difference in the type of involvement participants experienced. This was primarily academic versus social.	2	<1%
Interest Group	Statements that described participation in a specific interest group (e.g., band or student government).	2	<1%
Personality Trait	Statements that addressed a specific personality trait of a peer.	2	<1%

What was immediately striking upon review of the codes and the frequency of their application was that four specific codes were applied to over 58% of the significant statements identified in the data through this exercise. First, approximately 22.5% of all the significant statements identified in the data were coded “developing new connections,” excerpts where participants discussed experiences with developing new connections in the first semester of college. This was to be expected since many of the interview questions sought to extract data around these experiences in relation to peer belonging in the first semester of college. The second and third most frequently used codes were “friend group” (13.1% of all significant statements) and “roommate” (12.1% of all significant statements). The “friend group” code was used for significant statements where participants were describing experiences with membership in a group of friends and the “roommate” code was used for significant statements where participants were describing experiences with an individual they identified as a roommate, someone they shared a dormitory room with. The fourth most used code was “new friend” (10.6% of all significant statements), which was used for statements that described experiences with emerging one-to-one peer relationships that did not involve roommates and did not address

membership in a larger social friend group. Thus, developing new connections, specifically with roommates, a friend group, or new friend was an important constitutive element of the experiences described by participants.

On the other hand, codes that addressed settings or domains in the data were relatively sparse. The two domain settings that were coded most often in the significant statements were the classroom (code "classroom," 3% of all significant statements) and the dormitory (code "dorm room/dormitory," 2.1% of all significant statements). Additionally, although "friend group" was well represented in the data, other codes that addressed membership in a specific group such as "intramural sports," "specialized academic program," or "interest groups" were all 2% or less of the total significant statements identified. The relatively low frequency of codes relating to settings or domains, such as the classroom or dormitory, as well as codes relating to membership in groups, such as student interest groups, intramural sports teams, or specialized academic programs, suggested that the belonging experiences with peers being conveyed across the data set were not necessarily being characterized by factors related to setting or membership in groups beyond participant identified "friend groups."

Finally, the descriptive coding exercise yielded 12 other codes that were not related to who participants were describing experiences with (e.g., roommates, new friends, or friend groups) or within specific domain settings where these experiences where happening (e.g., classroom, dormitory), but rather seemed to emphasize specific descriptive characteristics of participant experiences with peers. For example, some of these included experiences of providing or receiving support while others included descriptions of characteristics of peer interactions and relationships such as how frequently individuals interacted or whether they lived within a close proximity to one another. The frequency of these codes as they were represented

across the data ranged anywhere from a low of 1% up to 5% of all significant statements. The emergence through this process of 12 codes that related to descriptive characteristics of peer experiences and peer relationships was intriguing, suggesting that additional qualitative analysis of the data was needed to better illuminate what aspects of peer relationship experiences mattered to participants within the context of belonging with peers. In summary, this descriptive coding exercise suggested that the descriptive characteristics of peer experiences, specifically as they related to the experience of developing new connections in the first semester of college with roommates, friend groups, and new friends, was important and richly represented in the data set.

In Vivo Coding

To further inform the phenomenological analysis of the data set, the researcher decided additional qualitative coding could prove beneficial. Specifically, although the descriptive analysis exercise helped simplify the data for the purpose of understanding some of the constitutive elements of the experiences described, the richer description of those experiences and the exact terminology used by participants was not centered. Phenomenological research, generally, honors the language used by participants to define their experiences (Creswell, 2017), so the researcher decided as a next step to recode the data using an in vivo coding approach to understand key language used by participants. In Vivo coding emerged out of work in grounded theory research and is distinct from other qualitative coding methods in that it places emphasis on the spoken words of participants by using them as code labels (Saldaña, 2016).

To begin this second exercise, the researcher reviewed both the earlier identified significant statements and their descriptive codes and labelled each with a new code that was developed directly from the language used by participants about their experience. This analysis helped the researcher to capture some of the terminology participants were using. Table 13

provides an example of how the in vivo codes were applied to the significant statements and descriptive codes.

Table 13

Example of Participant Description, Descriptive Codes, and In Vivo Codes

Significant statements	Descriptive code	In Vivo code
So naturally my friend group of just four people my age at least, expanded to fifteen/sixteen. So, I found it really easy to get socially adapted, especially since [UNIVERSITY] is such a tight knit community and they have a good orientation system, so I felt at home within the first day.	Friend Group – stability in membership	"So, I felt at home within the first day…"
A lot of people in my dorm, I'm in [DORM NAME], 5th floor. It is not even really my floor I hang out with; it is people on 3rd floor, or 6, 8, it is all around	Dormitory – exposure to other people	"A lot of people in my dorm… it is not even really my floor I hang out with"
I have one friend who I didn't even know yet, Adam knew him, he went to high school half a mile from me. So, we met him and his roommate and his friend and, again, my roommate because his sister is a senior here he used to visit, so he had another friend, then I met someone, then we all just introduced you to everyone, similar to how any friendship would work, so now we have a group of like 15.	Developing new connections – meeting friends of friends	"I have one friend who I didn't even know yet… he went to high school half a mile from me"
Actually, quite a bit. In terms of just exploring the campus I feel like the first month is transition to college, finding that friend group… even just simply like trying every dining hall, where we like to go, where we like to hang out, the [LOCATION] or [LOCATION].	Friend Group- exploring campus together	"Finding that friend group… even simply trying every dining hall, where we like to go, where we like to hang out…"

A review of these in vivo codes helped illuminate key language that emerged across participants. First, common language that appeared across participants were adjectives that

participants used to describe the characteristics of peer connections including language around how these connections made them, the participants, feel. For example, participants often described their peers and their relationships as “authentic” and “genuine.” Participants also often used the term “comfortable” as a way of describing how they felt with other people. In addition to these terms, participants often noted that these relationships were “deeper,” or they could connect on a “personal level” and talk about “personal things,” and several participants discussed being able to “talk about anything” with their peer or friend group. Outside of these adjectives, other key language that emerged was terminology around “hanging out” or “spending time together,” often qualified by terminology around the frequency of these interactions, for example “we hang out all the time” or “we spend every day together.” In some instances, participants would discuss actual activities, like sharing meals and studying, however, this more generalized terminology related to the frequency of peer interaction appeared most often. This key terminology, specifically the adjectives employed by participants around the characteristics of their relationships with peers such as comfort, authenticity, and genuineness, guided the researcher’s phenomenological analysis and influenced how invariant structures were ultimately labeled as they emerged from the data.

Open Coding

The in vivo coding process was followed by a third and final open coding exercise. Whereas the descriptive coding exercise provided the researcher with a sense of the overall constitutive elements being discussed in the data, and the in vivo coding captured and provided the researcher with an understanding of the language being used, additional analysis was needed to begin to identify from the in vivo codes what was important about these experiences that participants were trying to convey. Although this analysis did not go as far as investigating

psychological meaning from a phenomenological perspective, it further contextualized what participants were saying about their experiences, while capturing the language they used, to inform the researcher's understanding of the phenomenon being investigated. As the researcher reviewed each coded element, the primary question the researcher considered was "what characteristic of the peer interaction being described mattered to this participant?" An example of this third step of open coding can be found below in Table 14.

Table 14

Example of Significant Statements, Descriptive, In Vivo, and Open Codes

Significant statement	Descriptive code	In Vivo codes	Open codes
So naturally my friend group of just four people my age at least, expanded to fifteen/sixteen. So, I found it really easy to get socially adapted, especially since [UNIVERSITY] is such a tight knit community and they have a good orientation system, so I felt at home within the first day.	Friend Group – stability in membership	"So, I felt at home within the first day…"	Comfort
A lot of people in my dorm, I'm in [DORM NAME], 5th floor. It is not even really my floor I hang out with; it is people on 3rd floor, or 6, 8, it is all around	Dormitory – exposure to other people	"A lot of people in my dorm… it is not even really my floor I hang out with"	Proximity
I have one friend who I didn't even know yet, Adam knew him, he went to high school half a mile from me. So, we met him and his roommate and his friend and, again, my roommate because his sister is a senior here he use to visit, so he had another friend, then I met someone, then we all just introduced you to everyone, similar to how any friendship would	Developing new connections – meeting friends of friends	"I have one friend who I didn't even know yet… he went to high school half a mile from me"	Shared home geography

work, so now we have a group of like 15.			
Actually, quite a bit. In terms of just exploring the campus I feel like the first month is transition to college, finding that friend group… even just simply like trying every dining hall, where we like to go, where we like to hang out, the [LOCATION] or [LOCATION].	Friend Group- exploring campus together	"Finding that friend group… even simply trying every dining hall, where we like to go, where we like to hang out…"	Exploring college together

After combining and collapsing related open code labels this exercise yielded a list of 33 specific codes that helped to categorize the data in a novel way. Fifteen codes accounted for 80% of the data. Table 15 lists these codes and their frequency of use.

Table 15

Top 15 Open Code Examples and Frequency of Use

Code	Code description	# of times applied	% of total codes applied
Commonalities	This code was applied to statements that discussed identifying commonalities with peers, including but not limited to share geographical background, interests, life experiences, and racial or ethnic background.	69	17.2%
Communication	This code was applied to statements that discussed qualities of communication among peers.	30	7.5%
Proximity	This code was used for statements where participants discussed how closely they lived or went about their normal daily activities with a peer or group of friends.	27	6.7%
Frequency of Interaction	This code was applied to statements where participants commented on the frequency of the interactions they had with a peer group or friend.	25	6.2%
Connection Depth	This code was applied to statements that discussed qualities of the depth of connection peers felt with another or a group.	23	5.7%
Structured Relationship	This code was used for statements that described the quality of a peer relationships as a structured connection, existing through in relation to involvement in academic life.	21	5.2%

Contributed Support	This code was applied to statements where participants described experiences contributing support to others.	19	4.7%
Creating Shared Life Experiences	This code was applied to statements where participants described experiences where they were sharing in and co-creating a memory with peers.	19	4.7%
Receive Support	This code was used for statement where participants discussed experiences of receiving support from others.	17	4.2%
Preexisting Connection	This code was applied to statements were participants described having relationships that were established prior to coming to college.	16	4.0%
Involvement in a Student Org	This code was applied to statements where participants described experiences related to being involved in a student organization.	14	3.5%
Spending Time Together	This code was used for statements where participants discussed spending time with peers, often referred to as "hanging out."	14	3.5%
Mutual Support	This code was applied to statements where participants were describing qualities of mutuality in support among their peer group or with a friend.	12	3.0%
Endurance of Connections	This code was applied to statements where participants discussed qualities of a peer relationship related to the strength or endurance of a connection to a peer.	11	2.7%
Comfort	This code was applied to statements that discussed experiencing comfort with peers.	10	2.5%

Reviewing the open codes that emerged from this analytical process and their frequency across the data informed the researcher and the subsequent phenomenological analysis in several ways. First, it was striking that participants discussed commonalities with other peers so often in the data (17.2% of all codes applied). The commonalities participants identified and described were varied, and ranged from shared geographical backgrounds, to shared interests, life experiences, as well as racial/ethnic background. Although participants commented often on commonalities they identified with their peers, it was difficult from this analysis alone to consider the underlying meaning being conveyed when individuals discussed having something in common with another, and additionally, whether these commonalities were in anyway representative of invariant structures of belonging among college peers in the first semester.

Additionally, other frequent codes that emerged from the data in this exercise were codes relating to communication with peers (7.5% of all codes used), the frequency of their interaction with others (6.7% of all codes used), and the proximity of peers living near one another (6.2% of all codes used).

When considered together, the identification of commonalities, communication, frequent interaction, and proximity of peers seemed to suggest that this open coding exercise yielded codes that were descriptive of the constitutive elements of how connections emerged in the postsecondary environment. However, upon reviewing other codes that emerged through this process, it also became clear to the researcher that qualities of these connections to others seemed important to peer belonging in the first semester. For example, this exercise yielded codes relating to how participants perceived the depth of a connection they felt they had with another, whether these connections were structured, that is, influenced by the settings in which they occurred or came to be, as well as codes related to experiences of contributing or receiving support. Participants also described experiences related to the mutual character of that support, the perceived endurance of those connections or lack thereof, and whether they experienced a sense of comfort with others.

Considered together, the descriptive, in vivo, and open coding undertaken early in the data analysis process informed the constitutive elements of the peer belonging experiences being described by participants. Some of these constitutive elements included identifying which peers participants were interacting with such as roommates, friend groups, and emerging one-to-one friendships that were not with roommates. Other constitutive elements identified were settings in which these interactions were taking place such as the classroom, dormitory and within student interest groups. There were other reoccurring constitutive elements that seemed to be correlated

to the belonging experiences with peers that were not as easily categorized, including exploring college life with peers, creating shared memories, living within proximity to peers, or seeing them frequently. Finally, this analysis also began to highlight those specific qualities of these peer connections that might be important for peer belonging in the first semester of college, such as connection depth, the exercise of support among peers, and how peers perceived the character or genesis of their relationship to another. These insights proved essential for informing the phenomenological analysis that followed.

Invariant Structures of College Peer Belonging in the First Semester

Building upon the insights gained from analyzing the data for constitutive elements of the belonging experiences with peers in the first semester of college, the next phase of data analysis was conducted to explore the psychological meaning of the experiences being described by participants to identify the invariant structures of the phenomenon under investigation. To do this, several processes were adopted from the descriptive phenomenology techniques for psychology developed by Giorgi (2009). These processes included: 1) identifying meaning units across the data, 2) conducting psychological reflections on those meaning units, 3) identifying insights from these reflections and exploring their generalizability across participants and interview time periods, and 3) utilizing free imaginative variation to identify the invariant structures descriptive of belonging experiences with peers in the first semester of college.

This analysis identified four invariant structures of first year, first-semester college belonging experiences with peers. These invariant structures were: 1) authenticity and genuineness, 2) volitional friendships, or friends by choice 3) trust and comfort, and 4) unconditional and unqualified emotional support. What follows is a description of each of these invariant structures as they emerged from the data analysis process as well as rich and thick

descriptions supporting these structures in the form of excerpts taken directly from participant interview transcripts.

Before turning to these descriptions, it is important to discuss how the use of terminology was addressed in this study. This study attempted to honor the lived experiences of participants by representing the meaning they ascribed to these experiences in their own voice. In this spirit, the researcher has tried where possible to use the exact language of participants to label the invariant structures of belonging experiences with peers in the first semester of college. However, using participant language to describe the psychological meaning ascribed to an experience can create challenges. For example, terms like "authenticity," "genuineness," "fakeness," "realness," or even the use of the term "actually," are all very closely related and might all be used to convey a general idea or experience. Thus, a certain level of variance may occur across the terminology participants employ to describe a similar experience or an invariant structure of the phenomenon under investigation. What follows is the researchers best attempt at faithfully employing the language participants used to describe the invariant structures that emerged from the data. Each of the invariant structures outlined below begin first with a comprehensive description before moving into select excerpts from participant interviews where some nuances are explored.

Invariant Structure 1: Authenticity and Genuineness

Participants in this study described experiences of belonging in peer-to-peer relationships during the first semester of college as being characterized by a sense of authenticity and genuineness. Within these relationships first-year, first-semester college students: 1) felt like they could be themselves, 2) felt that being genuine or authentic, as opposed to unauthentic or fake, was valued bidirectionally with their peers, and 3) authenticity was related not only to

being oneself with others, but also being able to be emotionally genuine with peers and experiencing genuine intent and genuine emotional care from peers in return.

"I Can Be Myself; I Don't Have to Mask Anything." Participants deeply valued relationships where they felt they could be themselves, and in those types of relationships, they experienced genuine care for their authentic person in return. For example, when asked what she valued about her friends since coming to campus, Gabriella replied as follows:

> Just that they actually like genuinely care about me, and the fact that it is mutual, obviously, but the fact that…cause I don't know anyone here. I had no idea who anyone was when I was coming here except for like my roommate. So, like the fact that I am just being myself and they are actually friends with me because of just genuinely who I am is amazing, it is like the best feeling.

Gabriella was elated that she could be herself authentically with others, and that her choice to be herself had led to meaningful friendships, describing it as the "best feeling." This idea was discussed in other participant interviews. Desaree, for example, noted that in the past it was rare for her to ever develop close relationships with peers where she felt she could talk about her own personal issues. She described how her relationship with her college peers had taken on a different dimension than her high school friendships, allowing her to "unmask" and just be herself:

> Um cause in the past I've really… I have friends but like I considered them as associates. We talk but we talk about business… you know like if it's about what we are going to do for our next event for Black Student Union, or what are we doing for our fundraising for cheerleading… it was just business. I really never had those kinds of friends that I could talk to about my personal problems, about the stuff that I got going on. Many people

> never known I had stuff going on cause I was going to make sure my friends are ok before I am, which I am working on right now, I'm working on that, trying to put myself first. But for years I've been putting others before me which really wasn't good for my health. But loyalty really is a big thing and I do have trust issues, so usually does take me a while to kind of see who I really want to call a friend. But with them, I don't know, they are different, they listen to me, we listen to each other, and it's like I'm comfortable, I can be myself I don't have to mask anything, I can just tell them. And like they won't judge me, and I don't judge them. So, it is like the bond we built so far is like amazing.

Being able to be authentic was invariant in early belonging relationships with college peers. Also, this invariant structure appeared to be characterized by aspects of mutuality. Desaree states that "they won't judge me, and I don't judge them," leading to connections and friendships she calls "amazing."

My Friends Are Not Fake. Additionally, participants valued when their peers acted in ways that they perceived as authentic in return. Several participants discussed this idea by describing the opposite of this quality, where peers were fake or unauthentic. When asked to elaborate on a situation that was an example of experiencing the "fake side" of a peer in college, Melissa described a situation with one of her roommates that occurred while they were spending time with a larger group of neighbors in their residence hall:

> One of my roommates would do this sometimes, and it would drive us all crazy, but it's around other people… she'll just act totally different. And it is like, I don't know, we just got annoyed by it because she would treat us not as good.

Melissa considers her roommate a friend. But in this example, Melissa noticed a change of behavior in her roommate that did not emerge until they were in a larger social group. This

behavioral change was drastic enough that Melissa felt that the quality of how she expected to be treated by this peer was not being met. In a later passage Melissa presented the idea that this particular quality of meaningful peer relationships that fulfill belonging, authenticity and genuineness, was more often reflected in close relationships and that the "fakes sides of people" tends to emerge in larger group contexts:

> …Just like the quality relationships, again. I've always had a couple friends that [I] have been really close [with] and stuff. I've never been part of huge, massive friend groups. At least in high school I didn't. You don't get as close to people. And then it is like the fake side of people come out, and you are like I don't like that part.

This characteristic of mutual authenticity and genuineness seems to be fundamental to higher quality, more meaningful belonging experiences in early college peer relationships. Authenticity and genuineness, as expressed by participants, was at its most basic level indicative of the ability to be oneself with others and that others were themselves in return. Perhaps this idea was summed up best by Gabriella. When asked to describe what was important to her friend group "clicking" she spoke directly to the groups collective understanding around expectations about authenticity and genuineness, "I think we all know, that we all know, we can just be ourselves around each other, it is really important…" In this instance Gabriella indicates there is a strong shared understanding around being oneself and creating a safe space for others to do the same within the peer group.

Genuine Intention and Care. Beyond this important element of authenticity with one another, another aspect of this invariant structure that emerged as important was that their peer relationships were also characterized by genuine intention and genuine emotional care. Genuine intention was discussed by a variety of participants. For example, when Melissa was asked how a

friend asking her to go to a volleyball match together made her feel, she replied "definitely reaching out shows that they actually care, and they actually want to hang out." For her, the simple fact that a new acquaintance had taken it upon themselves to seek out doing something together was indicative that there was genuine intent to pursue a friendship with one another in this emerging early college relationships. Another participant, Alan, also commented on how being asked to do something by a peer reaffirmed the genuineness in the desire to develop a relationship. Commenting on it briefly, he stated, "I asked Tommy if he wanted to go to the exhibition game and he said yes, he did. And then he came and asked me if I wanted to go to the open-season game, and you know, that made me feel more secure in my decision to put myself out there first."

Aman had a similar experience that reaffirmed his belief that his friends genuinely cared about him and his wellbeing. After having to isolate due to being exposed and infected with COVID-19 during the beginning of the fall semester in 2021, the fact that his peers were making the effort to check in on him while he was in isolation solidified his feelings about the authenticity of their relationship and the genuineness of their care for him:

> I was in quarantine for two weeks in September, like the end of September. So, when I was talking to them in quarantine, they were actually checking up on me and all this stuff. That was when I was like, oh yeah, these are actually my friends.

This realization, the moment participants recognize that their peers do genuinely care for them, is a reoccurring theme throughout the interviews, and they emerge through experiences in the first semester that range from seemingly common or trivial to times where friendships are "put to the test" early on in college. One example of this was described by Gabriella, who as a

first-year college student was attending a large party that the local law enforcement came to shut down. She described the experience as follows:

> We were at a party, and I forgot what street it was, but it was like a really big party. There were people inside and we ended up being outside because we are younger, and the police came and busted the party. We ended up like splitting up… … I got constant calls [asking] that I was ok and like "ok let's meet up here and let's make sure, it is far enough away, let's make sure you guys are ok." And it was very much like… I got split up from everyone else. They came in and like everyone ran and I was "oh god!" And I never partied in high school, I was never like that, so it was a very new experience for me.

What was important to Gabriella through this stressful early experience in the first semester was that her friends genuinely cared for her wellbeing and wanted to make sure she was ok. In this situation, which she described as a situation that "really tests your friendships," her peers "stepped up and made sure" that she was ok. When asked how she felt after receiving texts from her friends she responded that she was "like ok I feel better about it and like I feel cared about."

In summary, although there are nuanced ways in which authenticity and genuineness emerged as concepts in interviews with participants, there was a strong body of evidence in the data that relationships characterized by authenticity and genuineness were invariant to belonging experiences with peers for first-year college students in the first semester of college.

Invariant Structure 2: Volitional Friendships, Friends by Choice

Belonging experiences with peers in the first semester of college were also described by participants in this study as friendships that they saw as volitional, friendships they chose to pursue with others. It is evident throughout the data that first-year, first-semester students in this study were afforded a variety of settings and domains across the diverse ecology of the college

environment to establish connections with other peers. However, there was a threshold at which individuals would make a volitional choice to spend time with one another and continue to develop that relationship, often engaging in social activity beyond structured environments like shared college classes, student interest groups, or even geography (e.g., shared living spaces such as being in the same dormitory). Although these environments and encounters across campus appeared to be strong facilitators for the creation of time and space for peers to make connections with one another, they were not sufficient in and of themselves for developing relationships characterized by belonging in the first semester. Rather, in the first semester of college first-year students experienced and described peer relationships characterized by belonging as those where they chose to spend and invest time with others in non-academic environments or through non-academic experiences, where they exercised a level of self-direction in choosing who to socialize with. When asked to describe the moment that participants felt they became more "connected" to their friend or friend group every participant described a social activity not related to the academic demands of college life as a catalyzing moment.

Transitioning Beyond the Academic to the Social. For Trish, friendships with classmates became more meaningful as they crossed a threshold from just being partners on a class project to choosing to spend time sharing meals together and just "hanging out" outside of class. Trish arrived on campus late because she was committed to helping with her former high school's color guard team as they prepped for the fall. This led her to feel like she had already missed out on forming some connections. Her relationships with her roommates were not particularly strong, the orientation events she was able to attend did not really help, and although she had joined a student interest group for band, she really didn't feel like she had made any

connections there yet. She did note early on, however, that she felt like a class project had helped her become more connected to a couple of her peers she was required to work with:

> I think group projects, especially so early on in the semester, really allowed us to get to know each other, especially Mack, Ethan, and I since we have accounting class together as well. So, we bounce ideas off…. Later this week we are getting together for dinner to work on our project and just hang out… Yeah Hannah and Gina are going to meet with us as well, but since Mack and I live in the same building, we've done a lot of going over homework and a group of us will go down and study.

Early on, this class project helped facilitate a connection for Trish to her peers. However, in her second interview, when asked about how her connections with her peers had progressed, Trish noted how their relationship had shifted and evolved to be about more than just their class project:

> Yeah. Well, my relationship with my [project] group has just grown over the semester. In the beginning of the semester, it was just like, "Hey, do you guys want to go to lunch?" And we talk about our simulation, but now it's just like, "Hey, do you want to go to lunch?" It's not school based anymore, which I really enjoy.

She continued to describe how this relationship had changed. They now spent most of their time together on the weekends because school was so busy during the week. She also noted that her friend Gina, who lived off campus, would come to campus to eat lunch and hang out for a couple of hours on the weekend, particularly noting the effort that required. When asked to describe the moment she felt she had created real, meaningful friendships she replied:

> It was just one Saturday. I feel like it was a couple weeks ago. We were pretty confident in our simulation in our class, and we weren't meeting as a group anymore just for class

> anymore because we felt that we could work through it over text message. So, we just went to lunch just to chat and hang out… It made me feel good because I'm not from here. I don't have family here, so a lot of students go back on the weekends and Gina doesn't live on campus. So, she came to campus just for us to all hang out.

Trish still recognized that a lot of interactions and conversations within her peer group still revolved around school, with Gina as a junior level student giving advice to her and her friend Hannah who were both first-year students. However, when asked if she felt that these were her friends Trish replied affirmatively, stating that they went beyond mere acquaintances.

For Alan, leaving the dorm room to spend an evening with his roommate was a catalyzing moment early on, an experience where he felt like there was the potential for a meaningful friendship to develop beyond their connection as roommates who shared a living space. Alan is a self-proclaimed introvert who saw the dorm room as a safe place, a refuge from the forced interactions of the larger dormitory community. Although Alan chose to live in the dorm with two roommates because he wanted to be challenged to make connections, he was still somewhat daunted by the prospect of putting himself "out there." Alan met his roommate John, who was also introverted, and described how their relationship changed when they decided to leave the safety of the dormitory and enjoy an evening together:

> So, my one roommate, John, the one I am closer with, I do feel relatively connected with. I feel like we share… because he is also in the room a lot. We are kind of more introverted people. Last Friday we kind of spent the whole night doing things together… you know we went bowling, we saw a movie. So yeah, so I feel pretty close to John, my other roommate I don't so much… Before, I mean, we were, we'd talk but it wasn't really… we really didn't do anything outside of talk. Just kind of being forced to be next

> to each other in a room. And then we chose to do something together, outside of the room, and it kind of solidified the connection, I guess.

A final example of this idea of volitional friendships comes from interviews with Steph. Steph came to campus early as part of a specialized scholars program for minority students and had mandatory programming. This context provided Steph with a variety of opportunities to become more connected with other students in her program. However, Steph described moments that catalyzed and deepened her friendship as positive shared experiences she had with peers outside of the classroom and the mandatory programming. As first introduced in Table 12 as a sample of the psychological reflection process, one experience shared by Steph was that her connection with her best friend Amaya came through the time they spent talking, going on errands, and eating food together:

> Well, we became friends off ramen noodles. So, it was the summertime and my parents, we forgot to go grocery shopping, and I was like "I really just want some noodles." So, I came back to my dorm room later that night with a target bag with two packs of noodles. So, the next day, cause we had been talking about it and joking and I kept saying I wanted noodles, and then after that we just kind of gravitated towards each other based on our love for food. And then as we talked about food we got into other conversations, and we just realized we had a lot of the same experiences, a lot of the same thoughts and feelings about things. So, it felt nice to have somebody who like understood me, you know? On a different level rather than just being minorities. Also, she is a nursing major as well, so going into a White dominated field, she is from Chicago but having some of the same experiences in the sense that she has family in Gary and I have family in Gary, and so with that our connection just grew… and then we just hung out.

As another example, Steph also talked about a time when her and her friends were caught in the rain identifying that this shared experience brought them closer together:

> We were coming from "mando," which is mandatory study, and it was pouring rain outside and so we didn't want to wait for the campus transportation because it was going to be 20 or 30 minutes, that is how bad it was raining, and not everybody had masks at this point because masked weren't mandated on campus. So, me, and two other friends of mine at the time, we were like "I'm not going to wait" and we already kind of got wet so we might as well just walk. So, we walked from one dormitory to the other in the pouring and I mean when I say the pouring rain we weren't just soaked hair products coming out, we might as well been in the shower at that point. So, as we were walking we were just laughing, we were like "this makes no sense, we just walking in the pouring rain" we were like "we could get hit by lightning, this is so dangerous." It was fun. So, in that moment I was like "this feels right, this feels comfortable, this feels like I could be successful here" just in that one moment.

These experiences spending time with peers and developing shared memories were integral to Steph's ability to connect with her peers on a closer level. For her, the unique and novel moments they experienced together as they started their college life, and the time spent socially together, whether that was eating meals, hanging out, or even going to parties, were moments that mattered most for her emerging friendships.

Evaluating Relationships - Acquaintances or Real Friends? As first-year students come to campus, they are exposed to one another in a variety of ways within the first semester of college. Many of these encounters between peers occur through structured experiences and environments, whether that be first-year student programming, in the dormitory, in their classes,

or by joining student interest groups to name a few. However, choosing to spend more time with an individual or a group of individuals outside or beyond the context of these structured experiences and environments was fundamental and invariant to early belonging in college-based peer relationships. Simply put, peer relationships that were more characteristic of belonging were those that had crossed a threshold where volitional choice was exercised in wanting to spend more time together, often in a non-academic but social context. Certain encounters with peers were perceived as resulting from the demands of college life, others were seen as an individual's choice. One participant, Melissa, discussed this idea when asked about the orientation programming she experienced:

> I think the orientation thing, I think being somewhere at a designated time, which was not like real life you know. We went to the [local landmark] and [local restaurant], we would go back with my roommates and do those things ourselves it was just a lot more freedom.

Another participant, Craig, provided a rich description of not only this invariant structure of volitional choice but also how participants in this research seemed to evaluate their peer relationships early on in college in relation to who was an acquaintance and who was a friend. Craig came to the university with some pre-established relationships and indicated a deep sense of comfort with being on campus and meeting friends from the start. Aside from the individuals he knew from home, Craig began to immediately develop relationships with other peers he met in his dormitory and through mutual connections. First, he discussed an early catalyzing experience in a social setting that was important to developing meaningful friendships very early on:

> Actually yeah. It was in the first week of school, like I previously mentioned my roommate has a sister who goes here, and some of them play rugby and all the other

> siblings are like “hey all these guys are freshman lets have them over for a BBQ, we will have bags, bean bags and all that” and we were like ok. So I didn’t even know most of these guys at the time and we all went to this house and they were grilling in back and there were bean bags and I met Tom for the first time, the kid who went to high school a half mile from me, he brought his friends and we brought people we met from our floor, and that was the first time, none of us actually knew each other, but for some reason it just felt like instant, this is our friends, these are our friends here. I remember all of us just kind of standing in a circle like oh wow, I’ve been here for four days and I’m here… and I guess from that night it really just kind of seems like we haven’t changed at all. We’ve all been super close.

For Craig, this initial social outing, which occurred outside of the normal orientation programming for first-year students, was an impactful event and facilitated spending even more time together with his group of peers. From that day on they established a group chat, began spending time eating meals together, doing homework together and hanging out on the weekends. Craig really felt that this was his “core group” and distinguished this group of friends from the other acquaintances he might have on campus:

> In college, before I came here, I understood there would be a lot of people who come and go who you see in the hall or walking down the street and you are going to wave… it is more of an acquaintance friendship. You know in high school it is such a small community mostly that you have a core group, and it is not so much just acquaintances. In college I understand you are going to form that group you are going to hang with for four years and the rest of the people you are going to be friendly with. I found that we formed the core group very early on, so I was pretty thankful for that.

However, as he shared more, Craig also described how, from his perspective, his relationships with other peers were typified and influenced by the contexts in which his connections to those peers existed:

> Yeah. So, there's two ways I kind of look at it. For my friends now, we all live in the same building, we all go to the same dining hall, we have similar classes, we're always just in the same building, so it's really easy for us to connect. And I recently had a conversation with a couple of my friends, about how is it going to be next year when we don't have that one building? I would say, who's going to hang out with who then? And we'll all be that similar friend group, but it's not just so comfortable of living in the dormitory. And for the people in let's say one of my business organizations, those are people that, well, I don't live in the same building with. It's not so much similarity. And you're not in such a social setting. You're more being presented to or having to do something more business-related, business professional. And I've met people like that. Last night, I went to an event for the Go-Getters meeting. I had to wear business attire around something like that. And I met these two kids and we got to talking. I wouldn't consider them friends, but people who could be friends. I feel like you have to develop a relationship outside of the organization to actually consider that a friendship. However, in the business frat, I would consider some of the people I've met their friends. Actually, the guy who let me in this room was someone I'd actually consider a pretty good friend.

Craig was not the only participant to discuss this idea of having to determine who your "real friends" were early on in college. Paul discussed this in a similar but slightly nuanced way, identifying that it was important to discern who you liked and wanted to invest time and energy with further developing a relationship:

> Yeah. Because like ... I guess, as you get to know more people, you start to have actual opinions on them, and like, "Am I really good friends with this person? Or is it just like, we're just friends out of necessity, I guess, for the first week?" But as you start to whittle down your friend group, or the people around you, you definitely just start to focus on the more important things.

Throughout the data participants identified that living in the same dormitory, eating in the same dining hall, and being in the same classes all contributed to the ease at which they were able to remain connected to a peer or peer group. Craig raised the question himself, what would happen next year if this was not the case? What would happen in the future when he and his peer group had to exercise more volitional effort to spend time together, to continue to develop their relationships? Or as Paul commented, what happens as you begin to explore not just who you are connected to, but who you want to develop more meaningful friendships with? Participants described these relationships characterized by volitional choices, beginning with simple choices like who participants choose to share meals with or spend time together "hanging out" with on their free time, as indicative of the peer relationships that were more characteristic of belonging in the first semester of college.

Invariant Structure 3: Trust and Comfort

In addition to relationships that were perceived as volitional and were characterized by authenticity and genuineness, participants also described belonging relationships in the first semester as those peer relationships where individuals felt an underlying sense of trust and comfort. Participants often discussed these relationships as being "deeper," where individuals felt they could be emotionally authentic with one another and could talk about things they might not feel comfortable talking about with others. These types of relationships were also

characterized by the ability for a participant to share their own story and experiences by talking about their background and pre-college life, as well as being able to express their emotions honestly with their peers regarding matters large or small. These peers described feeling like they and their friends possessed deeper insights into each other's personalities and preferences, even knowing how each other might feel or think about a particular situation.

Establishing Trust. Establishing trust with others emerged throughout the data as important to belonging with college peers. Participants discussed the importance of establishing a baseline of trust through some form of a foundational experience with others, and the evolving nature of this trust over time. For example, Aman experienced one such moment early on in the semester when he went away to an off-campus retreat with peers from his specialized scholars program. During this retreat, he and these new peer connections were essentially "living together" for a whole weekend, staying up late talking about their life experiences, and identifying people they knew in common. Looking back on it in his first interview, he identified that retreat as a foundational experience where he felt his relationships began to be more meaningful, a place from which he could begin to develop this important sense of trust with others:

> Yeah, that trust definitely has evolved. Like at first you are a little hesitant, like "I'm not going to trust you fully, you have to earn my trust." That changed and I think after that, what do you call, that retreat that definitely changed…

When asked what was essential to helping that trust evolve, Aman elucidated further:

> I don't know, with people I can feel like a vibe with some people, whether to trust them or not. I'm met some people here on campus like right away, I don't trust you. I can tell

> how you are, how you act around other people. I can't trust you. But there are actual genuine people, if you are genuine, I can trust you.

In her interviews, Desaree also came back to this idea of developing trust with her peers many times. Interestingly, she explained this invariant structure of trust both as a verbalized commitment to support one another as well and as a function of peer behavior, committing acts that signaled or reaffirmed a trusting peer relationship. This first idea, of a verbalized commitment to a trusting relationship, Desaree described through the experience of meeting her friend Maria. Maria was originally supposed to be Desaree's roommate but ended up electing to live on her own. Desaree still sought Maria out when she came to campus, describing how she still wanted to develop the type of trusting relationships that she thought first-year college roommates would normally develop even though they were not living together:

> Eventually when she got onto campus, and I found out she was like having her own room or whatever I went to her dorm and I'm like "You know what, hi, I'm Desaree, I was supposed to be your roommate" and she was like "Hi" and I met her family and everything. And so, we just actually just sat down and got to know each other cause we really didn't get to do that through like the phone or anything and we barely would Facetime each other, so we really had to do it face to face. I was like "You know what we are going to sit down before we go to any party," cause there were a lot of parties happening that week, "I want to get know you and I want you to get to know me because at the end of the day even though we are not rooming together we are still roommates and I want us to build that trust, that friendship, that connection with each other" because that is what many people do when they have a roommate, people become best friends with

> their roommates, so you know I'm going to work my way into that and now we are just like closer than ever.

In this excerpt, Desaree was explicit that trust was central to the relationship she wanted to develop with Maria, that trust was an important characteristic of "that friendship, that connection with each other" that was unique and reflective of positive first-year roommates. Desaree also commented on the fact they would be engaging in lots of new experiences together like "going to parties" and experiencing other new aspects of college life. She alluded to the idea that a relationship between her and Maria, characterized by trust, could act as a mutual safety-net for them both.

As mentioned, Desaree also described how specific peer behaviors helped develop trust in these early college peer relationships. Like Gabriella's earlier experience with college social life, Desaree described an experience with peers at two separate parties that enhanced their mutual trust in one another. She described this experience and its impact on their relationships as follows:

> Jaimie [was] just, she was having her fun and Maria was too you know so I kind of took it as my responsibility to make sure everyone got home safe. And then Jaimie, actually, she started going crazy, she was throwing up and all that stuff and I just told her I'm like "you know I'm here for you do you need medical attention," I'm giving them water making sure their ok… Have you ever heard that line that says a drunk mind speaks a true heart… so Jaimie gave me this big hug and she was like "you are my best friend, I love you so much," and then I asked her the next morning too, "did you mean that?" She was like "Yeah, you know we are in this together, even though we never talked during high school cause we never knew each other like that." She really was thankful that I

> helped her… even when I was one time messed up, they were there for me, they helped make sure I was ok, they walked me home and made sure I got into my place safe, you know. So, it's like the things we do for each other I feel like that really kind of built up our trust and connection with each other because not many people you know would do that for a friend.

In this excerpt Desaree discussed how she and her close friend Jaimie took care of one another. Their actions to support one another, as she stated, "the things we do for each other," in a time of need helped enhance trust in their relationship. This trust also seems to be reinforced when individuals feel that they can not only trust their peers but are trusted by others in return. In a final excerpt from Desaree, she discussed how Maria's willingness to share her personal issues, such as when she was dealing with her own mental health, also helped establish trust:

> I've dealt with mental health issues in the past, my friend Maria, she is open to telling me, and sometimes I kind of feel bad because I'm not there yet to tell you my issues, but I do feel like it is getting stronger because she is able to trust me with that information and she is able to talk, cry to me about it, and all that stuff… but then again, for her to trust me with that I'm like whoa…

Being Comfortable with Peers. In addition to discussing trust, participants also described experiencing a level of comfort with their peers. Sometimes, this was reflected in part by the first invariant structure described in these findings, authenticity and genuineness, where participants described being "comfortable" being themselves. However, they also discussed comfort in regard to the level at which they felt they could be open and honest with peers. At the most generalizable level participants described this as the ability to "talk about anything" with their friends.

When asked about how her relationships with her roommates had evolved since her first interview, Gabriella commented that they could “talk about anything.” When asked about Kate, the individual she had described as being most connected to in her first interview, Gabriella indicated that Kate was “more like a school friendship now,” and they would “just talk about school and that is it.” True friends, she commented, where those individuals “who will actually want to go out and do things, too, and you can also talk to them about anything.” These sentiments were echoed by Desaree:

> Yeah. I think one thing that really... I would not say it's attachment issues, but they're always there. Whenever I need anything, they are just always there and I can talk to them about everything. So, I just really kind of found that, I guess you could say that trust with them. I just feel like I'm very open to them. I can talk to them about anything. That's what I really love about them.

Some participants went into greater detail, identifying that within these early belonging relationships between college peers there was an ability or openness to sharing about more personal issues. For example, when asked about a way he supported his friend, Craig discussed supporting Tyler who sometimes struggles with his older sister who is on campus:

> My roommate, Tyler, his sister goes here, and she does pretty well, and Tyler's starting to lean on the things Olivia's doing and trying to get involved in those similar things because it's kind of a big sister, little brother type of thing. And Olivia isn't very nice to mistakes with Tyler. When Tyler makes a mistake, she'll be all over him. So, Tyler will be upset sometimes… But he’s not overly upset about it, but you can tell, and he’ll talk to me about it, and that’s always something [I’m] willing to talk about him.

In a similar vein, Gabriella had also been there to support her friend Alex who was dealing with a similar situation. Gabriella described the situation and how she supported Alex in the following way:

> Um, one of my friends, this was last week, I think… I think also it was just him transitioning to college… he has an older brother that is like "The" older brother. He goes to [college name] and plays baseball, he is on a scholarship and has like perfect grades, and he is the favorite… you know it is like that… So, he was having trouble and was like "you know I feel like I'm not living up to my parent's expectations" and stuff like that and I just sat there, and you know talked him through it. I was like "you are different in your own way, the expectations that you create in your head… your parents will love you no matter what you do. Not to say you don't do great things like he does because you do. Most of the time you create these expectations of yourself, and it is not something that is reflected in your parents." Cause his parents, even he was saying… I was like "do they ever really say this to you, is it something that you hear constantly," and he was like "no it is just something…" …he just kind of gets that vibe. It is the transition to college and stuff and kind of sitting with him through that… I would say interesting because usually most guys are not like, spill their feelings.

Gabriella commented that she felt his comfort with being able to share these types of personal challenges with her was "the most important part" of being able to support Alex.

Other examples included Melissa, who tried to support her friend Jessica who lived off campus. Jessica would miss out on a lot of the first semester experiences her friends were having because her parents still set strict rules and a curfew around when she needed to be home. Jessica expressed this frustration of feeling disconnected with Melissa. In response, Melissa and other

members of their friend group would go out of their way to Facetime with her at night while they study. In another situation, Steph was feeling stressed and overwhelmed and reached out to a relatively new friend, Garret, late at night. Steph described the experience as follows:

> Yeah Garrett. He is like "I don't get sleep so you guys can just call me if you need anything." So sure enough I called and he answered like the second ring and it was like immediately like he knew something was wrong. He stays in [dormitory], so he walked from [dormitory] to the [campus building], the very front and I saw him I hugged him, just broke out crying. He was like, "Steph what's wrong?" He was like really worried. So, then we sat there from like 12:30 or 1:00 am to about 5:00 am in the morning. Just talking. And so that just made us very, very close cause he shared literally his life story, I shared my life story, and sure obviously it was five hours, we did that, and we just have been close since. So that day I remember it hitting midnight, or hitting about one, and he was like "my birthday is tomorrow," and at that point it was the 14th. So, I remember the 13th because that was like… cause it took him then to get there and that is how I remember it.

These conversations were characterized by a level of emotional vulnerability that were not necessarily reflected in other interactions with peers and often resulted in situations where peers were then capable of expressing emotional support or care for one another. Like the other invariant structures so far identified, authenticity, genuineness, volitional friendships, trust and comfort also add another descriptive dimension of the ways in which participants characterized early peer belonging experiences.

Invariant Structure 4: Unconditional and Unqualified Emotional Support

The final invariant structure of belonging experiences with peers in the first semester of college identified in this study was labelled unconditional and unqualified emotional support. For participants in this study, peer relationships characterized by a sense of belonging early in college life were those where they communicated openly about feelings they were experiencing and received emotional support from peers in return, regardless of the perceived severity or seriousness of the context underlying those feelings, as well as regardless of the specific domain in which that experience existed (for example relating to either academic or social aspects of college life). Additionally, that emotional support had qualities of bidirectionality and mutual benefit. Peers provided support to one another under the expectation that they could seek support in return, and that this care for one another was not perceived as transactional or *quid pro quo*, but rather as an emergent social compact, an implicit, and often unspoken agreement between peers to cooperate and provide emotional support to one another for the general benefit it provided within the context of their life at college.

One of the main distinguishing characteristics of the type of support participants discussed was this clear emotional character, the act of showing care and compassion for another person. Several participants talked about the emotional support they received from peers. For example, Amy identified how she felt supported by her roommate simply through her ability to come back to their dorm room and talk with her about her day and how she was feeling:

> But I don't know it is just really nice to feel like you have someone who is just supportive and you can talk to because naturally when you come to college you don't have your family, you don't have much of a support system, and just the people kind of make you feel at home. So it is really nice for me to kind of have that because in a way our dorm is

> our home, and to have her kind of fit into that mold and just someone I come home to, and I talk to about my day, I'm able to just like tell her things that were bothering me and she just knows how to listen and vice versa I'd do it for her.

Another participant, Aman, described how he knew he had developed an emotional support system early on. Although he noted that he did not have any moment where he felt like he was struggling, his friend group was defined by those peers he could talk to about his emotions:

> I wouldn't say I really had any moment where I was like struggling. But like, they are like, my friend group is like the people I can talk to if I am stressed or if I am having a bad day, I can just go talk to them about it.

Perhaps more telling were the peer relationships in which this emotional support was absent. For Alan and his roommate, the nature of their support for one another during the first several weeks of college was a simple as having a connection in their new environment and did not possess this more emotional characteristic were peers shared openly about how they were feeling and provided compassion and care to one another:

> Depends on how we support each other. We support each other in the fact that we lean on each other to like to have a friendship, some sort of connection. Compared to like if it was just me and this other roommate or him and this other roommate, and we didn't have the instant connection between the two of us right away it would make it more difficult to then create further connections if you don't have a ground base, I guess.

In this excerpt Alan discusses support with his roommate in much more utilitarian terms, where his relationship with his roommate might lessen his difficulty in making other friends, rather than a relationship that provides emotional support. In fact, when questioned further Alan explained that he still relied most frequently on his girlfriend for that type of support. He noted he and his

girlfriend talked often, he was “comfortable around her,” and he could “pretty much tell her anything.” In Alan’s own words she was his “main support” even though she did not go to the same institution.

Paul had a similar perspective to Alan early in the semester, commenting on where he thought he would seek emotional support if needed. He discussed how if he needed support, he would likely go to his parents rather than his roommate or other friends. When asked to elaborate, he noted that he did not feel like he had made a strong enough connection to seek support from other peers, and although he knew his roommate from home and they had a preexisting connection to one another, he didn’t feel they were close enough for him to talk about any challenges he was encountering. In his own words, his roommate was not “someone I’d go to, to talk about my problems or anything like that.” He continued, “I feel like I haven’t really had a chance to be supported or support others yet… everything is still pretty new. Like I’m sure if someone was willing to talk about their problems, they would be open to it.” Paul’s comments indicate that there was a threshold in his connections with peers that needed to be met for him, and others, to feel comfortable discussing more personal challenges or “problems,” to be open to seeking emotional support and in turn open to receiving it. Although some form of peer support existed for both Paul and Alan, it was of a different nature than the emotional support identified for this invariant structure and described by others.

Another component of peer support underlying this invariant structure was that emotional support among peers was unconditional in nature. Regardless of whether the need was perceived as serious or minimal, and whether it related to early college student academic life or social life, peers were always willing to try and help how they could. For some participants, like Trish, this

support was more academic in nature. Early on, Trish's friend Gina provided emotional support for her and her peers who were concerned about an upcoming exam:

> …Gina is a junior and she was giving us advice, and like rooting for us, giving us…what is it called… what is the word I'm looking for?... cheering us on, motivating us to do well on the exam… "Just breath, you got it, you know what you know" all that.

In this example, although the challenge facing Trish was academic in nature (e.g., passing a tough exam) the support Gina provided to Trish and her peer group was emotional, motivating and empowering in their capacity to succeed.

Gabriella provided another example of receiving emotional support from a peer that had to do with navigating a challenge with her roommate. As she notes:

> Yeah. Well, I was having, like, not… well I wouldn't say a problem with my roommate, but we were having some issues kind of transitioning to living together and Kelly, Michelle and I hang out all the time. So, Michelle has kind of noticing my roommate being a little like… I wouldn't say weird… she was just acting off. We had this moment where we both came together and were like "oh, I didn't want to say this to her because I didn't want to start a problem…" and at the same time we both felt like we could talk to each other about it and it would be fine, and we have just been so close ever since, and then the roommate thing got solved so…

In this instance, Gabriella was able to rely on her friend Michelle to help her navigate what she described as "issues" related to her and her roommates "transitioning to living together." To resolve the issue, Gabriella and Michelle developed a course of action together and addressed it with her roommate to find a solution. Both Trish and Gabriella's examples illustrate how the nature of this support was as much emotional as it was tactical, not only about having a peer to

help provide the tools to overcome a situation but having a peer to help one process the emotions involved in a particular situation.

In other examples from participant interviews, there were also experiences where peers provided unconditional emotional support to one another in the face of more severe and sometimes deep personal challenges. For example, in one instance Steph described the support she provided to her friend Kia who was dealing with challenges related to home life:

> Yeah, um, Kia, she had a little brother who she is very close with, and he was always calling her all the time. We could be in the middle of class, and he is going to call. He wants her undivided attention. And she also had family problems going on at home and she was letting that dictate her day. One thing I've had to help her understand was you are at college… you are in a different state, she is also from, she is from [CITY] which isn't that far… you are in college now. You can't be worried about home life cause if you are worried about home life you aren't going to be able to focus on what is going on here, you are not going to be successful. Because one thing I have understood about college in the short time that I've been here is that if you are not focused on the goal, whatever your goal is, if you are not focused on that completely at all times you aren't going to be successful you are going to fall. So I was trying to tell her its ok for him to call you and it is ok for you guys to talk every day, but multiple times a day, him just blowing up your phone… and what he'll do is he will call from her mom's phone, so she don't know if it is her mom or little brother… so he would do that and she was worried about things going on with her other siblings. Her mom is like "you can't help anyways; you are in a different state." So having that helped her realize it is ok to prioritize yourself. Cause I

> was that family member that was just there, I was that friend that was just there for everybody, sometimes you do have to take that step backwards.

In yet another example, this type of unconditional emotional support was given to a peer dealing with experiences as tragic and impactful as the death of a close family member. Aman had an experience early in the first semester of college supporting a peer whose brother had tragically died, "Yeah, so one of my friends, his brother was actually killed a couple weeks ago so that was really hard for him. His mom also went through some health issues as well and she ended up in the hospital." Aman noted they support this peer by "talking it through, making sure that he was like getting the support he needed but also staying focused on school. Giving that emotional support. Just trying to be like a good friend."

Finally, in addition to unconditional character of the emotional support participants experienced with peers this support was also clearly unqualified, meaning without reservation or limitation, was total, and was not seen as a transaction among peers but rather as an implicit and often unspoken social compact with one another. For example, Gabriella commented that she felt she was comfortable going to anyone in her friend group for support, "Yeah for sure, and they would like mutually come to me." Alan and Paul also suggested that they hoped their friends would also be willing to come to them if they needed support. When asked whether Alan thought he had mutually supportive relationships with his peers he responded, "I would hope so." Paul shared "I just feel like that's what friends would do. It's not anything like… I would do that for, I guess any of my friends. I'm not bragging or whatever. That is just what friends would do for one another." When asked if he thought his friends would do the same if he needed support, he commented "I hope so. Yeah." Craig also responded he would "absolutely" be comfortable going to his friends for support, and that his friends felt that in return "a hundred percent."

All this data suggests that early college peer relationships characteristic of belonging possess this crucial invariant structure, that peers are freely available for supporting one another and will freely give this emotional support in an unconditional and unqualified way. Paul noted that he isn't "bragging," and this is "just what friends would do," but the data analyzed throughout this descriptive phenomenological study emphasizes the underlying qualities of these college peer relationships are important for belonging and differentiate them from other connections in the post-secondary environment is important. These specific relationships provide first and foremost an emotional utility, the ability to navigate feelings and experiences with support from others that were expressed through compassion and care.

Conclusion

This research sought to explore how first-year college students perceive and describe experiences of belonging in peer-to-peer relationships in their first semester. Utilizing a rigorous data analysis process informed by the descriptive psychological phenomenological tradition of Giorgi (2009), four invariant structures of belonging in peer-to-peer relationships were identified:

1. Authenticity and genuineness
2. Volitional friendships, or friends by choice
3. Trust and comfort
4. Unconditional and unqualified emotional support

These findings, supported with rich descriptions taken directly from participant interviews throughout this chapter, helped elucidate the phenomenon under investigation. This study found that the phenomenon of peer belonging in first semester college peer relationships can be understood as those relationships where individuals experienced exercising volition or choice

towards who they want to be more meaningfully connected to, where individuals experienced an ability to be authentic with their peers and perceived that their peers were authentic with them in return and were genuine in their care, where individuals felt they have established a sense of trust and comfort with one another that allowed them to be emotionally honest and vulnerable, and where peers were willing to provide unconditional and unqualified, mutual, emotional support.

Chapter 5: Discussion

Higher education researchers concerned with engagement, attrition, and persistence have investigated belonging and the role of supportive peer relationships (Freeman et al., 2007; Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018; Strayhorn 2008, 2009; Strayhorn et al., 2019) since these interpersonal relationships act as crucial conduits for the fulfillment of the psychological need of belonging (Baumiester & Leary, 1995; Ryan & Deci, 2017). Within this literature, college peer interactions and supportive college peer relationships have emerged as important factors that influence college students' sense of belonging (Hoffman et al., 2002; Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2008, 2009, 2018; Strayhorn et al., 2019). This phenomenological study examined how first year college students perceived and described experiences of belonging in peer-to-peer relationships in the first semester to better understand these relationships and peer support. Four invariant structures of the phenomenon were found: 1) authenticity and genuineness, 2) volitional friends or friends by choice, 3) trust and comfort, and 4) unconditional and unqualified emotional support. The following chapter discusses how these findings contribute to the literature, implications for higher education practice, policy, and future scholarly research, as well as the limitations of this work.

Qualities of Belonging in First Semester College Peer Relationships

A primary contribution of this study to the extant literature of college student belonging is that it provides a more nuanced understanding of the specific qualities of peer relationships and peer support that comprise mutual belonging in the first semester of college life. Findings from research in the area of college belonging have shown that certain peer interactions, such as talking about course content outside of class, tutoring other students, and involvement in social

organizations impact college students' sense of belonging (Hurtado & Carter, 1997). Interactions with diverse peers also influence college students' sense of belonging, with some disagreement on how these diverse peer interactions impact college students of different racial/ethnic backgrounds (Johnson et al., 2007; Strayhorn 2008, 2009; Strayhorn et al., 2016). Additionally, other studies have identified that supportive peer relationships, where college students perceive that they can rely on their peers for help, also influences college student sense of belonging (Hoffman et al., 2002; Strayhorn, 2008, 2009; Strayhorn et al., 2016). However, knowledge about the specific qualities of these interpersonal relationships that influence belonging, beyond the fact that college students generally perceive their peers as friendly or supportive (Hoffman et al., 2002; Strayhorn, 2008, 2009; Strayhorn et al., 2016), has so far been limited. The identification of these qualities helps illustrate for researchers how first semester college students perceive connections to their peers as differentiated in the postsecondary environment, and what qualities emerged as important for college peer relationships that fulfilled the belonging need.

Further, past research has emphasized the relationship between setting qualities and college student sense of belonging (Hoffman et al., 2007; Freeman et al., 2007; Hurtado & Carter, 1997; Johnson et al., 2007; Slaten, Yough et al., 2014; Slaten, Elison et al., 2018; Strayhorn, 2008; Strayhorn, 2018), but notably by design, the invariant structures that emerged in this study were interpersonal relationship qualities, not setting qualities. For example, although study participants commented on a myriad of ways in which they came to relate to other peers across various domains and settings during the first semester of college, such as discussing roommates, individuals they met through student interest groups, in class, through orientation, or in specialized academic programs, when asked to reflect on their connections to others that were indicative of belonging both at the beginning and the end of the semester,

specific qualities of these interpersonal relationships emerged. In this sense, the design of this study provides a contrast to other studies in this literature that have focused more on setting elements and belonging for college students.

The identification of these invariant structures as qualities of belonging in college peer relationships suggests that peer relationships are more complex and multifaceted than how this phenomenon has been conceptualized and investigated in the literature as primarily receiving support. Existing studies have conceptualized and operationalized belonging in college peer relationships through perceptions of peer support in a first-year seminar course (Hoffman et al., 2002) or selected relationship qualities, for example, asking individuals to rank whether they felt their peer relationships were friendly, supportive, and fostered a sense of belonging or were competitive, uninvolved, and fostered a sense of alienation (Strayhorn, 2008, 2009; Strayhorn et al., 2016). However, there are important nuances involved with how college students psychologically differentiate and describe meaningful connections to others in the first semester of college that are characteristic of belonging. Also, the qualities of authenticity and genuineness, comfort and trust, volitional friends, and unconditional and unqualified emotional support identified in this research also contribute novel dimensions of belonging in college peer relationships that have not been included in past scale development, perhaps explaining why in some models of college belonging peer relationship factors fell out (Slaten et al., 2018). The descriptive contributions of these findings are considered further through examining each of the invariant structures identified.

Authenticity and Genuineness, Comfort and Trust

This study identified that qualities of authenticity and genuineness, as well as trust and comfort, were important for how first-year students experienced belonging need fulfillment with

peers in early college life. Authenticity and genuineness, although often used interchangeably in common vernacular, do have differentiated meanings. Authenticity, as understood in the positive psychology literature, refers to a person's way of relating to themselves, a way of being true to oneself, acting in accordance with one's own feelings and values (Harter, 2002). Participants in this study often identified being able to be authentic with their peers, representing themselves to others in a way that felt true, which reinforced their sense of self. Genuineness, on the other hand, refers to being sincere and honest with others, referring primarily to how individuals relate through interactions with one another.

The identification of authenticity and genuineness, which by definition address the ways individuals relate not only to one another but to themselves through interactions with others, seems to suggest that the quality of interaction matters for belonging in early college peer relationships, particularly in the first semester. Given that the need to belong is more salient when individuals are new to an established group (Strayhorn, 2018), like the first-year college students interviewed for this study, it is possible that first-year students are more perceptive or critical of these qualities during this time. That is, it is possible that first semester college students are more attuned to qualities of authenticity and genuineness in peer interactions than they are at other times since they are new to college life and these qualities may be lacking or absent with others in this new environment.

Further, the data also seems to suggest that it is possible that experiencing authenticity and genuineness from a peer in this novel environment may also reinforce an individual's capacity or willingness to be authentic with their peers in return. Gabriella's earlier quote is a great example of the potential interconnectedness of authenticity and genuineness:

> Just that they actually like genuinely care about me, and the fact that it is mutual, obviously, but the fact that…cause I don't know anyone here. I had no idea who anyone was when I was coming here except for like my roommate. So, like the fact that I am just being myself and they are actually friends with me because of just genuinely who I am is amazing, it is like the best feeling.

Although not stated explicitly, Gabriella's quote here could be interpreted as meaning that the sincerity of care she experienced from her peers enabled her own openness and authenticity, her ability to be herself, with her close friends. One could also speculate that interactions among first semester college peers that are perceived as disingenuous might further limit an individual's openness to authentically expressing themselves to others which likely has negative ramifications for psychological need fulfillment. Since these two dimensions of authenticity and genuineness often emerged together in interviews they were organized as one invariant structure of the phenomenon under investigation. Ryan and Ryan (2019) have argued from a self-determination theory perspective that genuineness is in fact an element of authenticity, perhaps shedding some light on why these terms were often employed together. Regardless, this finding suggested that how peers relate to one another, and the subsequent impact that might also have on their sense of self, is an important dimension and worth consideration in future scholarship on belonging among college peers.

Additionally, turning to the invariant structure of trust and comfort, a similar discussion can be had. Again, trust and comfort are arguably interconnected dimensions of belonging that may influence one another but do possess distinct meanings. Trust between two people generally refers to a possessed belief in the reliability of another. The foundational psychological literature on belonging described the enduring character of a relationship as a dimension of belonging

(Baumeister & Leary, 1995), that the connection was reliable, and in so being, supported belonging need fulfillment. Comfort, on the other hand, in a psychological sense between two people, is the easing or alleviation of an individual's negative feelings or distress through connection to another. Participants that expressed experiencing comfort with other college peers, representing this easing or alleviation of negative feelings, might be understood as what Baumeister and Leary (1995) and Ryan and Deci (2017) identify as the positive regard between two people, that the interactions individuals experience with one another are generally and genuinely positive. Thus, trust and comfort taken together in college peer belonging relationships, could be understood as representing these important dimensions of belonging identified in psychology, of the perceived durability of connections to others and the positive experiences those belonging connections create (Baumiester & Leary, 1995; Ryan & Deci, 2017).

Although this study does not address how these qualities develop in college peer relationships or alternatively how they fail, the emergence of this terminology, and perhaps more importantly, the complex meaning conveyed by this study's participants is interesting. It provides not only evidence for the complexity of how belonging among college peers is experienced but a lens that can inform future scholarly inquiry. For example, as previously mentioned, authenticity in social psychology research suggests that the capacity to express oneself to another in an authentic way impacts both individuals involved in that interaction. There is a level of bidirectionality suggested here that aligns well with our understanding of the important dimension of mutuality in belonging relationships. Thus, although this study focused on mutuality through the giving and receiving of support between college peers, mutuality may also underly interpersonal dynamics more broadly. For example, an individual's capacity or

openness to be authentic and genuine with others may influence those qualities in return, or alternatively, authenticity and genuineness may influence perceptions of trust and comfort, which in turn could reinforce continued authentic and genuine behavior between two peers. The ways in which these qualities may be self-reinforcing, through the underlying mutual character of these close interpersonal college peer relationships, could prove an interesting and rich area for further inquiry.

Another contribution of this study to the broader canon of belonging research is that it the contributes preliminary terminology and an emergent frame for informing how scholars might conduct further qualitative research to enrich the descriptions of these college peer belonging experiences or how more accurate measures of college student belonging among peers in the first semester might also be developed. Future studies could investigate the college peer relationship qualities that comprise belonging need fulfillment identified here, further elucidating how authenticity, genuineness, comfort and trust come to exist or can be further defined across the developmental span of college.

In addition to this work, further attempts to measure belonging could employ scale items designed to tap into dimensions of peer belonging such as qualities of authenticity, genuineness, comfort, and trust with peers. Again, those studies that have measured college student sense of belonging quantitatively have only operationalized belonging in less multifaceted ways, through relationships where peers are supported within an academic context like a first-year seminar course (Hoffman et al., 2002), have asked individuals to assess three qualities of their relationships with peers (Strayhorn, 2008; 2009; Strayhorn et al., 2016) or have not included peer relationship factors at all (Hurtado & Carter, 1997; Johnson et al., 2007; Slaten et al., 2018).

Volitional Friends or Friends by Choice

The invariant structure of volitional friends or friends by choice emphasized that belonging in peer relationships in the first semester of college was found in relationships characterized by participant choice, volitional energy, and time investment. While structured interactions such as meeting as a first-year orientation group, being in the classroom for a specific course, or through student interest groups played a role in creating connections to others, the space for volition, or exercising a choice to become friends within or beyond those structures, suggests the kind of need fulfilling actions first year college students engage in.

Put another way, college students were cognizant of those peer connections that resulted from developmental settings, such as being connected to a peer because of a shared class or being involved with someone who was in the same student interest group. However, this study found that relationships that were characteristic of belonging were those connections that either transcended these initial settings or were otherwise unrelated to academic demands of the collegiate environment. This finding aligns well with the need for autonomy outlined in self-determination theory research. The autonomy need refers to the psychological need for an individual to perceive themselves as the "origin source" of their behavior (Deci & Ryan, 2004). Autonomy need fulfillment is also known to play a significant role in facilitating the support for relatedness, or belonging, and competence. Ryan and Deci (2017) note that contexts that support autonomy generally foster situations where individuals can optimize strategies for fulfilling the other needs of belonging or competency.

Thus, conceptualizing and operationalizing belonging in peer relationships through academic support (i.e., asking college students if they have peers that support them in class) or asking students to indicate whether their peers are generally "friendly" or "supportive" does not

capture this important volitional component of college peer belonging in the first semester found in this study. This finding suggests future research on college peer belonging research could employ measures of whether college students perceive their peer relationships as volitional, where they have exercised choice to create and develop these relationships, versus connections that are not the result of volitional effort, that result from institutional structures and do not move beyond the structures in which they might occur.

Unconditional and Unqualified Emotional Support Among College Peers

This study also identified another important quality of belonging in peer relationships, unconditional and unqualified emotional support. This structure was derived from all the experiences conveyed by participants about the support students not only received but also provided to one another. This support was primarily emotional in character, was provided or received in an unconditional way regardless of the underlying reason for the need and was unqualified in so far as it was given without limitation or reserve. For example, participants in this study identified support from peers as being experienced across a wide range of challenges, some seemingly trivial such as having a friend to talk to about their experiences at the end of the day, to less trivial like dealing with romantic relationship, to even severe challenges such as dealing with an unexpected death, illness, or family issues. The breadth of ways in which peers supported one another suggests that peer belonging relationships in the first semester might act as an important coping function for first-semester students as they encounter a variety of challenges.

Additionally, the finding of the emotional character of this support was also informative, especially in situations that were more directly connected to matters relating to the academic demands of college life. For example, when peer support was more academic performance

related, participants still described interactions that were still strikingly emotional in character and less academically utilitarian. Supportive peers were not only those individuals that might study with one another, or help each other understand an assignment, but perhaps more characteristic of belonging, those individuals that empowered one another to feel capable and competent at overcoming academic challenges or demands of early college life. Take Trish's experience with her friend Gina previously discussed:

> …Gina is a junior and she was giving us advice, and like rooting for us, giving us…what is it called… what is the word I'm looking for?... cheering us on, motivating us to do well on the exam… "Just breathe, you got it, you know what you know" all that.

The type of support Gina provides in this example is clearly and explicitly emotional in character. The exam Trish mentions in this passage was not even for the course Gina and Trish were enrolled in together. What Trish describes in this passage, that has interesting implications for future research, is that Gina is supporting Trish in a more deeply psychological and emotional way, and its academic and developmental utility is best understood as the way in which her support meets an important psychological need, in this case, feeling competent about her ability to meet the demands of this particular college course. It is support in the sense that Trish feels more emotionally, if not intellectually, prepared to pass the exam than she was prior.

The quality of emotional support being provided to Gina through her belonging relationship with Tish, in relation to the developmental demand of passing the exam in her class, reflects the interesting link between the psychological need to belong and another psychological need for competency as outlined in the self-determination theory research that underlies this research. Noted earlier, the competence need reflects the human need to feel effectance and mastery, as it enhances individuals' feelings of being able to operate "effectively in important

life contexts" (Ryan & Deci, 2017, p. 11). In the example provided, Gina is supporting Trish's competency need fulfillment through reaffirming her effectiveness and mastery of the content. Again, returning to basic psychological needs theory as outlined by Ryan and Deci (2017), the belonging need, competency need, as well as the third need of autonomy are known to be somewhat interdependent, where the satisfaction of one need is generally correlated with the support and satisfaction of the others. As Ryan and Deci state (2017, p. 250), "in full functioning, all three needs are mutually implicated and tend to be very highly correlated."

Mutuality as a Dimension of Belonging in College Peer Relationships

In addition to the need for a more descriptive understanding of belonging in college peer relationships, a review of the varying conceptualizations of college student belonging found across the literature, and a review of the dimensions of belonging investigated in this existing research, suggested a need to employ a specific conceptualization of college belonging in line with the foundational psychological belonging research (Baumeister & Leary, 1995; Ryan & Deci, 2017) which presented these important interpersonal relationships as bidirectional, where individuals not only received support from others but also contributed support in return. Of all the literature reviewed for this study, none conceptualized supportive college peer relationships as bidirectional, only representing support as something college students received, not something they provided.

Thus, by specifically centering mutuality interesting findings emerged regarding the character of college peer belonging in the first semester of the first year of college. For example, mutuality in these relationships was often unspoken, or not explicitly discussed among close peers, but was assumed by participants to exist until it did not. In some instances, participants described peer connections where the meaningfulness or closeness of that relationship

diminished over time due to factors such as a lack of communication or interaction, or an event that disrupted participant trust. It is important to note this research does not shed light on the character of mutuality in these relationships that diminished. However, in meaningfully connected college peer relationships that endured throughout the first semester, mutuality was never described as a commitment to one another reflective of a *quid pro quo*, or transactional commitment between peers, but rather reflected a deeper understanding between meaningfully connected individuals or members in a friend group about how they would behave towards, and support, one another.

In this sense mutuality, an essential dimension of belonging, operationalized in this study in supportive relationships among college peers, reflected in some ways what Hoffman et al. (2002) described in their research as being “a member in a network of mutual obligation” (p. 237). However, this study’s findings suggest further that a “member in a network” might be better understood as being meaningfully connected to one or more peers at a level where one is willing and open to seeking support and providing it. Furthermore, the use of the term “mutual obligation” by Hoffman et al., (2002) may not be the appropriate adjective to describe these relationships either, given how “obligation” connotates an idea of being bound to do something regardless of one’s volition or willingness to do so. The concept of mutuality in college peer relationships explored here in the qualities of peer belonging was more reflective of a willingness to support, emanating from oneself, as opposed to acting based solely on the expectations of another. In other words, as participant Paul noted, this willingness to both support and seek support “is just what friends would do for each other.”

Also, the findings on the potential interconnectedness and bidirectionality of qualities like authenticity and genuineness, and comfort and trust among peers, and the way in which

interaction between peers might be mutually reinforcing, suggests that belonging manifests itself in a variety of ways beyond receiving support. The conceptualization of mutuality as an inherent quality of belonging in this study indicates that mutuality is manifested in qualities of college peer relationships. Future studies should similarly conceptualize mutuality in peer relationships and belonging need fulfillment.

Discussion on Diversity in College Peer Belonging Relationships

A substantial portion of the college belonging literature has investigated race/ethnicity group effects on college students' sense of belonging (Booker, 2007; Booker et al., 2016; Duran, 2019; Hurtado & Carter, 1997; Johnson et al., 2007; Maramba & Museus, 2013; Samura, 2016; Strayhorn, 2008, 2009; Strayhorn et al., 2016; Tachine et al., 2017; Wells & Horn, 2015). Additionally, there has been contradictory findings in the research on the how interactions with diverse peers impact sense of belonging for college students of different racial/ethnic backgrounds (Johnson et al., 2007; Strayhorn 2008, 2009; Strayhorn et al., 2016). Informed by these studies, experiences with diverse peers were also an area of inquiry this study attempted to explore by asking first year college students to describe these interactions. However, the focus on invariant structures and the description of positive experiences of belonging did not provide data on issues of race/ethnicity. Although some participants discussed some specific interactions with peers of different race/ethnicity, peers with different cultural upbringings, being raised in different geographies, and interactions with peers of different levels of religiosity or faith backgrounds, these examples were limited.

It is critical to note that although experiences with diversity did not emerge in this study, experiences with diverse peers certainly impact the development of belonging in college peer relationships in the first semester, especially in light of the numerous studies in the college

belonging literature that have specifically investigated this topic (Booker, 2007; Booker et al., 2016; Duran, 2019; Hurtado & Carter, 1997; Johnson et al., 2007; Maramba & Museus, 2013; Samura, 2016; Strayhorn, 2008, 2009; Strayhorn et al., 2016; Tachine et al., 2017; Wells & Horn, 2015). Unfortunately, this study's ability to investigate experiences with diversity and belonging in college peer relationship in the first semester was limited and further research is needed.

One way this study can contribute to future efforts in this area of research is through its identification of qualities of authenticity and genuineness, volition and choice, trust and comfort, and unconditional emotional support. Equipped with these findings, researchers should examine how, and which, interpersonal interactions foster or constrain these qualities of college peer belonging among diverse peer relationships in the first semester of college life. Future research should also center the voice of students of color and those in other marginalized groups in the postsecondary environment (Zamudio et al., 2011) to help illuminate this phenomenon as it is experienced for other college student racial/ethnic groups. Interesting questions remain around the ways in which setting level factors that have been found to influence belonging for diverse college students (e.g. Hurtado & Carter, 1997; Johnson et al., 2007) may interact with the interpersonal relationship qualities identified here to influence belonging.

Implications for Policy and Practice

An interesting question and challenge that emerges from this research is how do higher education administrators create the conditions early on in college life that foster and fulfill first-year college students psychological need for belonging to help orient them towards successful academic careers and overall personal development? In particular, how can institutional actions, whether in the form of policy or practice, support the development of peer relationships that meet

a student's need to belong specifically in the first semester? Consideration of these questions and the findings of this study inform some implications for higher education policy and practice.

Currently, in order to better connect first semester college students to their peers, as well as to faculty and staff in some instances, higher education institutions often utilize structured programming like orientation groups, structured living environments such as living learning communities, or even specific academic practices like having first-year seminars to provide conditions through which students can become more meaningfully connected to one another in the postsecondary environment. Additionally, many institutions have robust programming within student residence halls, encourage first-year students to connect with their new roommates through social media, hold campus-wide new student events, and have a plethora of student organizations usually demarcated by specific interests that they promote students join. Much of this is normally operationalized for first-year students during an orientation period, generally ranging from a week to a few days preceding the return of the larger student body to campus.

Findings on the qualities of peer belonging of authenticity and genuineness, comfort and trust, volitional friends or friends by choice, and unconditional and unqualified emotional support suggests more consideration and emphasis needs to be placed on understanding how these programs not only create the opportunities for peer interactions, but also act to foster the conditions by which self-directed activity can yield meaningful friendships that transcend these initial institutional structures. The findings of this study clearly show that although these environments facilitate peer connection, those relationships that pass a threshold of fulfilling belonging generally result from volitional choice, or self-directed behaviors, where individuals exercise decision-making around which peers they spend their time with and who they want to develop interpersonal relationships with. This is not to say that institutional programming and the

way this programming can influence peer-to-peer connection in the first semester is not important, and that administrators cannot influence the development of important relationships that impact belonging, but it is important to identify that in the first semester college students are perceptive of the qualities of interactions and meaningful peer connections.

Therefore, it is important that programming emphasizes student self-direction and experience where possible and assures that there are opportunities to make informal connections within structured formal programming to support conditions that may better facilitate dimensions of belonging among college peers. Administrators should pay close attention to how programming and campus environments influence recreation and socialization among students, since it is in these spaces that students can exercise volition and self-direction, optimizing their own strategies and approaches for building relationships.

Further, “going to college” is often conceptualized as moving to a college campus, but the area geographically surrounding campus may also be an important tool for helping foster experiences that feel less like college and more like real life as students develop these relationships. Within the context of this study, an urban setting, creating more opportunities for peers to go out and explore the broader urban environment, and experience some of the cultural and entertainment amenities offered, experienced as unrelated to the demands of college life, could prove helpful in fostering belonging between peers and creating positive shared experiences.

Additionally, it is likely that authenticity, genuineness, comfort, trust, and emotional support in college peer belonging relationships likely emerge over varying amounts of time. Thus, there are important temporal challenges to be considered. Although the typical length of new student programming may fit the need for acclimating first semester college students to, or

preparing them for, the institutional demands of college life, it is justifiable to question whether programming that lasts anywhere from a few days or even up to a whole week at the outset of the academic year is enough time for first semester college students time to acclimate to one another in a novel social environment. The continued development of these belonging relationships is likely an ongoing process, emerging quicker for some first semester college students and slower for others. Programming that specifically intends to foster student connectivity should not necessarily be limited to the very outset of a student's first semester or to only on-campus events. This programming, whether considered orientation programming or more general student affairs programming, could last throughout an entire fall semester with students developing regular and consistent interaction with a group of peers that is more durable over time and likely more social in nature. However, an important consideration is how to design programming where involvement may not be perceived as institutionally forced or coerced. It is possible that programming originating from and led by students might prove an impactful strategy for allowing student self-direction for fostering belonging relationships among college peers. It is interesting to consider how institutions might set up conditions by which first semester, first-year college students are actually co-creators of their own orientation or new student programming.

From a practice perspective, this study also suggests that those individuals involved in leading the institutional supports designed to facilitate student development and success, in the first semester and beyond, would also benefit from a deeper understanding of peer-to-peer college relationships, their capacity to impact belonging, and how belonging need fulfilment influences how college students manage the demands of their new environment. Practitioners armed with this knowledge about the importance of peer relationships could be more effective in investigating how a first semester college students connect with others and how that lends itself

to emotional peer support and belonging. For example, the findings of this study might equip an college student support staff to know that asking a student if they have a lot of friends, versus asking a student a more directed question of whether or not they have one or more peers they feel they support and can ask for support from, are two very different questions, with one being more reflective of having emerging or established belonging relationships with peers. Additionally, knowledge contributed by this research could also support advisors in investigating other dimensions of peer relationships that impact belonging, for example helping facilitate conversation with new college students around if they feel they can be authentic with their friends, or whether they feel they could talk to their friends about anything. Both would help investigate dimensions of authenticity and genuineness as well as unconditional and unqualified emotional support found in close belonging relationships among college peers.

Furthermore, the connection between belonging need fulfilment and motivation and behavioral quality is relatively understated in the current higher education literature on belonging and thus is unlikely fully realized in practice. As Strayhorn (2018) has noted, and as supported by the review of college belonging literature conducted for this study, the deep connection between college student sense of belonging to college student motivation, grounded in clinical experiments from developmental and social psychology research (Ryan & Deci, 2017), is generally underexplored, undiscussed, and often unexamined in most of this body of research. The importance of understanding this connection, from a practitioner's standpoint, lies in how it equips individuals involved in supporting students with expanded knowledge around where and how students receive support in the postsecondary context, the important role that peers play in this area, and how feelings of isolation or disconnectedness may manifest themselves through poor behavioral regulation and motivation to the broader demands of postsecondary academic

life. It also suggests that advisors consider the potentially nuanced ways in how peer support of this type is likely to be different than support provided by faculty or staff. For first semester college students, the broader social experience of collegiate life is integrally connected to the demands of the academic, and depending on the challenges students encounter, they need support mechanisms through various relationships with peers, faculty, and support staff that might provide important support in nuanced and differentiated ways.

Finally, belonging has also recently been adopted into evolving conversations about diversity, equity, inclusion, and its practice on college campuses across the country. It is not uncommon now for postsecondary institutions to talk about DEI&B; diversity, equity, inclusion, and belonging. However, applications of belonging in conversations of diversity, equity, and inclusion are not typically grounded in a conceptualization of belonging as a psychological need, rather, many DEI practitioners will discuss a sense of belonging as creating environments in college that are perceived as welcoming for all individuals regardless of difference. On one hand, feeling welcomed in an environment, whether through setting qualities or how an individual might perceive the receptivity of others, can certainly influence belonging. Early college belonging research suggested that perceptions around support for diversity impacted college students' sense of belonging to the campus community (Hurtado & Carter, 1997). Additionally, Johnson et al. (2007) found perceptions around support for diversity influenced sense of belonging for first-year college students living in residence halls (Johnson et al., 2007). However, these factors represent only one potential input for how individuals across difference may come to experience a sense of connectedness or need fulfillment in the postsecondary environment and the important role of interpersonal relationships has received less attention.

Discussions of belonging within the context of diversity, equity, and inclusion on college

campuses could benefit from an expanded understanding of how belonging needs come to be satisfied through these relationships in the postsecondary environment, especially through the identification of interpersonal relationship qualities with others that influence belonging, such as authenticity, genuineness, comfort, and trust. This begs the question of how are these qualities created among peers across difference, and how might these interpersonal relationship qualities influence perceptions of welcoming environments across postsecondary life? Furthermore, it is important to note that individuals can experience belonging need fulfilment while also experiencing challenges associated with diversity, equity, and inclusion in the collegiate environment. Experiencing a sense of belonging and encountering these challenges across difference are not mutually exclusive. The findings of this study suggest that meaningful college peer relationships that facilitate belonging may actually help to facilitate emotional support and coping in the face of challenges relating to difference that college students encounter. Belonging, understood in this sense as the fulfillment of a psychological need to feel meaningfully connected to other individuals, perhaps particularly in environments characterized by differences that arise in collegiate life, is more deeply psychological than what is implied when sense of belonging is used to describe environments as welcoming of diversity.

Discussions of College Peer Belonging and College Student Success in the First Semester

Scholars have suggested that further examinations of college student sense of belonging have the potential to help refine and advance our knowledge about college student persistence and success (Hausmann et al., 2009; Hoffman et al., 2002; Strayhorn, 2018; Tinto, 2017). Therefore, it is worth considering this examination of college students belonging experiences with peers in the first semester in the context of broader college student success research. One consideration is how this research might contribute to conceptualizations or definitions of student

success specifically in the first semester. Within the literature, college student success is often measured through attainment indicators such as individual grades and cumulative grade point averages, persistence to the second semester or year of college, successive earned credit hours representing progress towards degree attainment, length of time to degree, and graduation (Kuh et al., 2006). These indicators are all primarily measures of academic achievement, and although they can be measured at vary points along the college student lifecycle, it is difficult to see how these traditional measures of college student success that are more longitudinal in nature might be applied specifically to the context of the first semester of college.

This study presents interesting evidence for how college student success in the first semester of college might be better evaluated by attuning more attention to how psychological needs like belonging, among others, are being met, given how these needs impact motivation and behavioral quality. This research found that for first-year, first semester college students, the invariant structures of those peer relationships that either positively or negatively impact their sense of belonging, which theoretically is linked to motivational and behavioral quality towards the developmental demands of college life, are overwhelmingly social in nature. Thus, although first-year college students enter the collegiate environment and often immediately encounter the developmental demands of academic life, they are also engaged in a developmental process through which they come to be more meaningfully connected to others in a novel social environment, which research indicates should be understood as having an important impact on college student motivation (Guiffrida et al., 2013; Tinto, 2017), behavioral quality (Ryan & Deci, 2017), and subsequently academic achievement in the first semester.

Further, due to the mutual affective care and support that college students provide each other in peer relationships that constitutes belonging, first semester college students are

important actors not only in their own but in each other's development and potential collegiate success. Rather than conceptualizing their development as something being acted upon by the institution, this research and the conceptual framework underlying this study, strongly suggests that peers who develop meaningful connections and help support one another through the early transition into college life are collectively contributing to a social experience for one another that meets the need to belong which in turn can help them through the development challenges they may face, both socially through this early stage of college life transition, and academically as they begin to engage in the more intellectual demands of the postsecondary experience. Practitioners in higher education would benefit from understanding that the supports they personally provide, and those which are provided through specifically designed programming for first semester students, are just one force acting to support student development. First semester college students themselves, whether knowingly or not, are developing meaningful relationships with one another that impact belonging, and in so doing, are also active contributors to both their own and others development.

Thus, a novel conceptualization of student success in the first semester of college could incorporate more dimensions of social peer relationships, understood as relationships that can exist within each of the many contexts or spaces that first-year students inhabit across the diverse ecology of college life. These social relationships act as conduits of psychological need fulfilment, specifically belonging, which directly impacts how students meet the intellectual and broader developmental demands they face in the first semester of college. This study sought to better describe the invariant structures of these relationships, identifying authenticity and genuineness, trust and comfort, volitional friendships or friends by choice, and unconditional and unqualified emotional support as invariant elements of these types of meaningful peer

connections. It is my hope that other scholars will be able to use the contributions of this study to further expand our knowledge about the important role of belonging in college peer relationships as an important facilitator of college student success.

Limitations

This study was limited in several ways. First, the focus of this research was to explore belonging in college peer relationships in the first semester, and the findings of this research are limited to those relationships among first year college students where belonging existed. This study did not investigate college peer relationships in the first semester where belonging was non-existent, lessened over time, or relationships that in fact acted to alienate college students in the first semester. Further, it is also important to remember that although this study positions relationships that fulfill belonging among college peers as generally positive, these belonging relationships are not universally representative of all the types of positive peer relationships or connections that first year college students experience with one another. Along this same line, this research was limited to the first semester of college life for first year students, so it does not address belonging in college peer relationships at other times in college student life.

As a phenomenological study this research was also limited methodologically in other ways. Phenomenology is well suited for research where there is a need to describe the invariant structures (Giorgi, 2009) of a phenomenon across a sample of individuals who have shared that lived experience. However, phenomenology does not seek to develop an overall process understanding or yield a general theory underlying a phenomenon which is the purpose of other methodologies, for example, grounded theory research (Creswell & Poth, 2018). Thus, this study was focused on providing more detailed description about belonging experiences with college peers. This study was not conducted to identify how this phenomenon manifests in the

postsecondary environment more generally. Important questions remain around how these belonging relationships with peers came to possess these important qualities of authenticity and genuineness, comfort and trust, and unconditional and unqualified emotional support, and how the relationships that developed are experienced as volitional by first semester students.

References

Antonio, A. E. (2001). Diversity and the influence of friendship groups in college. *The Review of Higher Education*, *25*(1), 63–89. https://doi.org/10.1353/rhe.2001.0013

Astin, A. W. (1975). *Financial aid and student persistence.* Higher Education Research Institute (ERIC Document Reproduction Service No. ED 112 804). https://files.eric.ed.gov/fulltext/ED112804.pdf

Astin, A. W. (1977). *Four critical years. Effects of college on beliefs, attitudes, and knowledge.* Higher Education Research Institute (ERIC Document Reproduction Service No. ED 149 657).

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, *25*(4), 297–308.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* Jossey-Bass.

Atkinson, J. (1964). *An introduction to motivation*. Van Nostrand.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Bean, J. P. (1980). Dropouts and turnovers: The synthesis and test of a casual model of student attrition. *Research in Higher Education*, *12*, 155–187. https://doi.org/10.1007/BF00976194

Bean, J. P. (1982). Student attrition, intentions, and confidence: Interaction effects in a path model. *Research in Higher Education, 17*, 291–320. https://doi.org/10.1007/BF00977899

Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, *55*(4), 485–540. https://doi.org/10.3102/00346543055004485

Berger, J. B., Blanco Ramírez, G., & Lyon, S. (2012). Past to present: A historical look at retention. In A. Seidman (Ed.), *College student retention: Formula for student success* (pp. 7–34). Rowman & Littlefield.

Bollen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces*, *69*, 479–504. https://doi.org/10.1093/sf/69.2.479

Booker, K. C. (2007). Likeness, comfort, and tolerance: Examining African American adolescents' sense of school belonging. *The Urban Review*, *39*(3), 301–317. https://doi.org/10.1007/s11256-007-0053-y

Booker, K. (2016). Connection and commitment: How sense of belonging and classroom community influence degree persistence for African American undergraduate women. *International Journal of Teaching and Learning in Higher Education*, *28*(2), 218–229.

Borer, M. I., & Fontana, A. (2012). Postmodern trends: Expanding the horizons of interviewing practices and epistemologies. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, & K. D. McKinney (Eds.), *The Sage handbook of interview research: The complexity of the craft* (pp. 45–60). Sage.

Braxton, J. M. (2000). Reworking the student departure puzzle. In J. M. Braxton (Ed.), *Reworking the student departure puzzle*, (pp. 1–10). Vanderbilt University.

Braxton, J. M., & Lee, S. D. (2005). Toward reliable knowledge about college student departure. In A. Seidman (Ed.), *College student retention: Formula for student success*, (pp. 107–127). Greenwood Publishing Group.

Braxton, J. M., & Lien, L. (2000). The Viability of academic integration as a central construct in Tinto's interactionalist theory of college student departure. In J.M. Braxton (Ed.) *Reworking the student departure puzzle*, (pp. 11–28). Vanderbilt University.

Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2004) Understanding and reducing college student departure. *ASHE-ERIC Higher Education Report*, *30*(3). Jossey-Bass.

Braxton, J. M., Sullivan, A. V., & Johnson, R. T. (1997). Appraising Tinto's theory of college student departure. In J. Smart (Ed.), *Higher education research* (pp. 107–164). Agathon Press.

Brinkmann, S., & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing*. Sage.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research, 1*(2), 245–276. https://doi.org/10.1207/s15327906mbr0102_10

Chickering, A. W., & Gamson, Z. F. (Eds.). (1987). Seven principles for good practice. *AAHE Bulletin*: *March*: 3–7.

Choy, S. P. (1999). College access and affordability. *Educational Statistics Quarterly*, *1*(2), 74–90.

Connell, J., & Wellborn, J. (1990). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. Gunnar & A. Sroufe (Eds.), *Minnesota symposium on child psychology* (Vol. 23, pp. 43–77). Lawrence Erlbaum.

Côté, J. E., & Levine, C. (1997). Student motivations, learning environments, and human capital acquisition: Toward and integrated paradigm of student development. *Journal of College Student Development*, *38*, 229–243.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches.* Sage Publications.

Creswell, J. W. (2007). *Qualitative inquiry and research design.* Sage Publications.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches.* SAGE.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.

de Brey, C., Musu, L., McFarland, J., Wilkinson-Flicker, S., Diliberti, M., Zhang, A., Branstetter, C., & Wang, X. (2019). Status and trends in the education of racial and ethnic groups 2018 (NCES 2019-038). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved 4/20/2021 from https://nces.ed.gov/pubs2019/2019038.pdf.

DeCharms, R. (1968) *Personal causation: The internal affective determinants of behavior*. Academic Press.

DeCharms, R. (1976). *Enhancing motivation: Change in the classroom*. Irvington.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.

Deci, E. L., & Ryan, R. M. (2002) Overview of self-determination theory: An organismic dialectical perspective. In E. Deci & R. Ryan (Eds.) *Handbook of self-determination research* (pp 3–33). University of Rochester Press.

Deci, E. L., & Ryan, R. M. (Eds.). (2004) *Handbook of self-determination research*. University Rochester Press.

Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, *73*(5), 642–650. https://doi.org/10.1037/0022-0663.73.5.642

Demetriou, C., & Schmitz-Sciborski, A. (2011). Integration, motivation, strengths and optimism: Retention theories past, present and future. In R. Hayes (Ed.), *Proceedings of the 7th national symposium on student retention*, (pp. 300–312). The University of Oklahoma.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research*. Sage.

Duran, A. (2019). A photovoice phenomenological study exploring campus belonging for queer students of color. *Journal of Student Affairs Research and Practice*, *56*(2), 153–167. https://doi.org/10.1080/19496591.2018.1490308

Durkheim, E. (1897). *Le suicide: étude de sociologie*. F. Alcan.

Eddles-Hirsch, K. (2015). Phenomenology and educational research. *International Journal of Advanced Research, 3*(8), 251–260.

Ford, M., & Tisak, M. (1982, April). Evaluation of an educational intervention to enhance social-cognitive skills. Paper presented at the annual meeting of the American Educational Research Association, New York.

Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshman at the classroom and campus levels. *The Journal of Experimental Education*, *75*(3), 203–220. https://doi.org/10.3200/JEXE.75.3.203-220

Garcia, T., & Pintrich, P. R. (1996). The effects of autonomy on motivation and performance in the college classroom. *Contemporary Educational Psychology*, *21*, 477–486. https://doi.org/10.1006/ceps.1996.0032

Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Duquesne University Press.

Goodenow, C. (1993a). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, *13*(1), 21–43. https://doi.org/10.1177/0272431693013001002

Goodenow, C. (1993b). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, *30*, 79–90. https://doi.org/10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X

Goodenow, C., & Grady, K. E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education*, *62*(1), 60–71. https://doi.org/10.1080/00220973.1993.9943831

Goldberg, A. E., & Kuvalanka, K. A. (2018). Navigating identity development and community belonging when "there are only two boxes to check": An exploratory study of nonbinary trans college students. *Journal of LGBT Youth*, *15*(2), 106–131. https://doi.org/10.1080/19361653.2018.1429979

Graham-Smith, S., & Lafayette, S. (2004). Quality disability support for promoting belonging and academic success within the college community. *College Student Journal*, *38*(1), 90–100.

Greenberg, M. T. (1982). *Reliability and validity in the inventory of adolescent attachments*. Unpublished manuscript, University of Washington.

Gubrium, J. F., Holstein, J. A., Marvasti, A. B., & MccKinney, K. D., (Eds.). (2012). *The Sage handbook of interview research: The complexity of the craft*. Sage

Guiffrida, D. A. (2006). Toward a cultural advancement of Tinto's theory. *The Review of Higher Education*, *29*(4), 451–472. https://doi.org/10.1353/rhe.2006.0031

Guiffrida, D. A., & Douthit, K. Z. (2010). The Black student experience at predominantly white colleges: Implications for school and college counselors. *Journal of Counseling and Development*, *88*, 311–318. http://dx.doi.org/10.1002/j.1556-6678.2010.tb00027.x

Guiffrida, D. A., Gouveia, A., Wall, A., & Seward, D. X. (2008). Development and validation of the need for relatedness at college questionnaire (NRC-Q). *Journal of Diversity in Higher Education*, *1*(4), 251–261. https://doi.org/10.1037/a0014051

Guiffrida, D. A., Lynch, M. F., Wall, A. F., & Abel, D. S. (2013). Do reasons for attending college affect academic outcomes? A test of a motivational model from a self-determination theory perspective. *Journal of College Student Development*, *54*(2), 121–139. http://dx.doi.org/10.1353/csd.2013.0019

Harter, S. (1981). A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. *Developmental Psychology*, *17*, 300–213. https://doi.org/10.1037/0012-1649.17.3.300

Harter, S. (1982). The perceived competence scale for children. *Child Development*, *53*(1), 87–97. https://doi.org/10.2307/1129640

Harter, S. (2002). Authenticity. In C.R. Snyder & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 382–394). Oxford University Press.

Hausmann, L. R., Ye, F., Schofield, J. W., & Woods, R. L. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*(7), 649–669.

Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S. A., & Ladnay, N. (2005). Consensual qualitative research: An update. *Journal of Counseling Psychology*, *52*(2), 196–205. https://doi.org/10.1007/s11162-009-9137-8

Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, *4*(3), 227–256. https://doi.org/10.2190/DRYC-CXQ9-JQ8V-HT4V

Hu, S., & Kuh, G. D. (2002). Being (dis)engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education*, *43*(5), 555–575. https://doi.org/10.1023/A:1020114231387

Hughes, M., Waite, L., Hawkley, L., & Cacioppo, J. (2004). A short scale for measuring loneliness in large surveys: Results from two population-based studies. *Research on Aging*, *26*(6), 655–672. https://doi.org/10.1177/0164027504268574

Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino students' sense of belonging. *Sociology of Education*, *70*(4), 324–345. https://doi.org/10.2307/2673270

Hussar, B., Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., Smith, M., Bullock Mann, F., Barmer, A., & Dilig, R. (2020). *The condition of education 2020*. National Center for Education Statistics. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2020144

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. T., & Longerbeam, S. D. (2007). Examining sense of belonging among first-year

undergraduates from different racial/ethnic groups. *Journal of College Student Development*, *48*(5), 525–542. https://doi.org/10.1353/csd.2007.0054

Jones, N., Brown, R., Keys, C. B., & Salzer, M. (2015). Beyond symptoms? Investigating predictors of sense of campus belonging among postsecondary students with psychiatric disabilities. *Journal of Community Psychology*, *43*(5), 594–610. https://doi.org/10.1002/jcop.21704

Katz, L. (1987). *The experience of personal change.* The Union for Experimenting Colleges and Universities.

Kena, G., Aud, S., Johnson, F., Wang, X., Zhang, J., Rathbun, A., Wilkinson-Flicker, S., and Kristapovich, P. (2014). *The condition of education 2014*. National Center for Education Statistics. https://nces.ed.gov/pubs2014/2014083.pdf

Kuh, G. D. (2001). *The national survey of student engagement: Conceptual framework and overview of psychometric properties*. Indiana University Center for Postsecondary Research & Planning.

Kuh, G. D. (2003) What we’re learning about student engagement from NSSE. *Change*, *35*(2), 24–32. https://doi.org/10.1080/00091380309604090

Kuh, G. S. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, *50*(6), 683–706. https://doi.org/10.1353/csd.0.0099

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects student engagement on first-year college grades and persistence. *The Journal of Higher Education*, *79*(5), 540–563. https://doi.org/10.1353/jhe.0.0019

Kuh. G. D., & Love, P.G. (2000). A cultural perspective on student departure. In J. M. Braxton (Ed.) *Reworking the student departure puzzle*, (pp. 196–212). Vanderbilt University Press.

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006) *What matters to student success: A review of the literature.* Commissioned report for the National Symposium on Postsecondary Student Success: Spearheading a dialog on student success. Washington, D.C.: National Postsecondary Educational Cooperative. https://nces.ed.gov/npec/pdf/kuh_team_report.pdf

Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, *2*(3), 21–35. https://doi.org/10.1177/160940690300200303

Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of Counseling Psychology*, *42*(2), 232–241.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic Inquiry. SAGE Publications.

Malone, G. P., Pillow, D. R., & Osman, A. (2012). The general belongingness scale (GBS): Assessing achieved belongingness. *Personality and Individual Differences*, *52*(3), 311–316. https://doi.org/10.1016/j.paid.2011.10.027

Mayhew, M. J., Rockenbach, A. N., Bowman, N. A., Seifert, T. A., & Wolniak, G. C. (2016). *How college affects students: 21st century evidence that higher education works* (Vol. 1). John Wiley & Sons.

Manyanga, F., Sithole, A., & Hanson, S. (2017). Comparison of student retention models in undergraduate education from the past eight decades. *Journal of Applied Learning in Higher Education*, *7*, 30–42. https://files.eric.ed.gov/fulltext/EJ1188373.pdf

Maramba, D. C., & Museus, S. D. (2013). Examining the effects of campus climate, ethnic group cohesion, and cross-cultural interaction on Filipino American students' sense of belonging in college. *Journal of College Student Retention: Research, Theory & Practice*, *14*(4), 495–522. https://doi.org/10.2190/CS.14.4.d

Maslow, A. (1954). Motivation and personality. Harper & Row.

McCabe, R. H. (2000). No one to waste: A report to public decision-makers and community college leaders. Washington, DC: American Association of Community Colleges.

McClelland, D. C., Atkinson, J. W., Clark, R. A., & Lowell, E. L. (1953). *The achievement motive*. Appleton-Century-Crofts. http://dx.doi.org/10.1037/11144-000

McKeachie, W. J. (1994). *Teaching tips: Strategies, research, and theory for college and university teachers* (9th ed.). D. C. Health & Co.

McNeely, J. H. (1937). *College student mortality*. U.S. Office of Education, Bulletin 1937, no. 11. U.S. Government Printing Office.

Means, D. R., & Pyne, K. B. (2017). Finding my way: Perceptions of institutional support and belonging in low-income, first-generation, first-year college students. *Journal of College Student Development*, *58*(6), 907–924. https://doi.org/10.1353/csd.2017.0071

Merriam, S. B., Johnson-Bailey, J., Lee, M. Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, *20*(5), 405–416. https://doi.org/10.1080/02601370120490

Metz, G. W. (2002, October). Challenges and changes to Tinto's persistence theory. Paper presented at the Annual Meeting of the MidWestern Educational Research Association, Columbus, OH.

Milem, J. F., Berger, J. B. (1997) A modified model of college student persistence: Exploring the relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, *38*(4), 387–400. https://core.ac.uk/download/pdf/32438027.pdf

Miles, H., & Huberman, A. M. Saldana (2014). *Qualitative data analysis: A methods sourcebook* (#3). SAGE.

Mizock, L., Harkins, D., & Morant, R. (2011). Researcher interjecting in qualitative race research. *Forum: Qualitative Social Research 12* (2). https://doi.org/10.17169/fqs-12.2.1566

Moos, R., & Trickett, E. (1974). *Classroom environment scale manual*. Consulting Psychologists Press.

Moustakas, C. (1994). *Phenomenological research methods*. SAGE Publications, Inc.

Murray, H. A. (1938). *Explorations in personality: A clinical and experimental study of fifty men of college age*. Oxford University Press.

Niemic, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, *7*(2), 133–144. https://doi.org/10.1177/1477878509104318

Nora, A. (1990). Campus-based aid programs as determinants of retention among Hispanic community college students. *The Journal of Higher Education*, *61*(3), 312–331. https://doi.org/10.1080/00221546.1990.11780713

Nora, A. (2001-02). The depiction of significant others in Tinto's "rites of passage": A re-conceptualization of the influence of family and community in the persistence process.

Journal of College Student Retention: Research, Theory & Practice, *3*(1), 41–56. https://doi.org/10.2190/BYT5-9F05-7F6M-5YCM

O'Brien, E., & Epstein, S. (1988). *The multidimensional self-esteem inventory: Professional manual*. Psychological Assessment Resources.

Osborne, J. W. (1994). Some similarities and differences among phenomenological and other methods of psychological qualitative research. *Canadian Psychology/Psychologie Canadienne*, *35*(2), 167. https://doi.org/10.1037/0708-5591.35.2.167

Ostrove, J. M. (2003). Belonging and wanting: Meanings of social class background for women's constructions of their college experiences. *Journal of Social Issues*, *59*(4), 771–784. https://doi.org/10.1046/j.0022-4537.2003.00089.x

Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *The Review of Higher Education*, *30*(4), 363–389. https://doi.org/10.1353/rhe.2007.0028

Panos, R. J., & Astin, A. W. (1968). Attrition among college students. *American Educational Research Journal*, *5*(1), 57–72. https://doi.org/10.3102/00028312005001057

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *The Journal of Higher Education*, *51*(1), 60–75. https://doi.org/10.2307/1981125

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research* (Vol. 2). Jossey-Bass.

Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice. SAGE.

Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling and Development*, *79*, 77–89. https://doi.org/10.1002/j.1556-6676.2001.tb01946.x

Pennington, H. (2004). Fast track to college: Increasing postsecondary success for all students. Boston: Jobs for the Future.

Pintrich, P., & DeGroot, E. (1990) Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, *32*, 33–40. https://doi.org/10.1037/0022-0663.82.1.33

Price, J. L. (1977). *The study of turnover*. Iowa State University Press.

Raisman, N. (2013). The cost of college attrition at four-year colleges and universities. Retrieved from http://www.educationalpolicy.org/pdf/1302_Policy Perspectives.pdf

Rendón, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical considerations in the study of minority student retention in higher education. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 127–156). Vanderbilt University Press.

Rendón, L. I., & Nora, A. (1994). Clearing the pathway: Improving opportunities for minority students to transfer. In L. Bjork (Ed.) *Minorities in Higher Education*, 120–138. Oryx Press.

Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications, and theory*. Boston, MA: Houghton Mifflin.

Rubin, K. H., Bukowski, W. M., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: Vol. 3. social, emotional and personality development* (5th ed., pp. 619–700). Wiley.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data*. Sage.

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, *57*(5), 749–761. https://doi.org/10.1037/0022-3514.57.5.749

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, *25*(1), 54–67. https://doi.org/10.1006/ceps.1999.1020

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., Deci, E. L. (2017) *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

Ryan, R. M., & Powelson, C. (1991). Autonomy and relatedness as fundamental to motivation and education. *Journal of Experimental Education*, *60*, 49–66. https://doi.org/10.1080/00220973.1991.10806579

Ryan, R. S., & Ryan, R. M. (2019). Towards a social psychology of authenticity: Exploring within-person variation in autonomy, congruence, and genuineness using self-determination theory. *Review of General Psychology, 23*(1), 99–112. https://doi.org/10.1037/gpr0000162

Ryan, R. M., Stiller, J. D., & Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *The Journal of Early Adolescence*, *14*(2), 226–249. https://doi.org/10.1177/027243169401400207

Samura, M. (2016). Remaking selves, repositioning selves, or remaking space: An examination of Asian American college students' processes of" belonging". *Journal of College Student Development*, *57*(2), 135–150. https://doi.org/10.1353/csd.2016.0016

Sands, R. G., Bourjolly, J., & Roer-Strier, D. (2007). Crossing cultural barriers in research interviewing. *Qualitative Social Work*, *6*(3), 353–372. https://doi.org/10.1177/1473325007080406

Seidman, I. (2019). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers College Press.

Shah, S. (2004). The researcher/interviewer in intercultural context: A social intruder!. *British Educational Research Journal*, *30*(4), 549–575. https://doi.org/10.1080/0141192042000237239

Shusok, F., & Hulme, E. (2006). What's right with you: Helping students find and use their personal strengths. *About Campus*, *11*(4), 2–8. https://doi.org/10.1002/abc.173

Skinner, E. A., Wellborn, J. G., & Connell, J. P. (1990). What it takes to do well in school and whether I've got it: The role of perceived control in children's engagement and school Achievement. *Journal of Educational Psychology*, *82*, 22–32. https://doi.org/10.1037/0022-0663.82.1.22

Slaten, C. D., Elison, Z. M., Deemer, E. D., Hughes, H. A., & Shemwell, D. A. (2018) The development and validation of the university belonging questionnaire. *The Journal of*

Experimental Education, *86*(4), 633–651. https://doi.org/10.1080/00220973.2017.1339009

Slaten, C. D., Elison, Z. M., Lee, J. Y., Yough, M., & Scalise, D. (2016). Belonging on campus: A qualitative inquiry of Asian international students. *The Counseling Psychologist*, *44*(3), 383–410. https://doi.org/10.1177/0011000016633506

Slaten, C. D., Ferguson, J. K., Hughes, H. A., & Scalise, D. A. (2020). 'Some people treat you like an alien': Understanding the female athlete experience of belonging on campus. *The Educational and Developmental Psychologist, 37*(1), 11–19. https://doi.org/10.1017/edp.2020.5

Slaten, C. D., Yough, M. S., Shemwell, D. A., Scalise, D. A., Elison, Z. M., & Hughes, H. A. (2014). Eat, sleep, breath, study: Understanding what it means to belong at a university. *Excellence in Higher Education*, *5*(1), 1–5. https://doi.org/10.5195/ehe.2014.117

Smith, D. G., Gerbick, G. L., Figueroa, M. A., Watikins, G. H., Levitan, T., Moore, L. C., Merchant, P. A., Beliak, H. D., & Figueroa, B. (1997). *Diversity works: The emerging picture of how students benefit.* Association of American Colleges and Universities.

Smith, J. (2016). *Experiencing phenomenology: An introduction*. Routledge.

Soria, K. M., & Stebleton, M. J. (2013). Social capital, academic engagement, and sense of belonging among working-class college students. *College Student Affairs Journal*, *31*(2), 139. https://www.proquest.com/scholarly-journals/social-capital-academic-engagement-sense/docview/1504176337/se-2

Spady, W. G. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, *1*(1), 64–85. https://doi.org/10.1007/BF0221431

Spady, W. G. (1971). Dropouts from higher education: Toward an empirical model. *Interchange*, *2*(3), 38–62. https://doi.org/10.1007/BF02282469

Stage, F. K. (1989). Motivation, academic and social integration, and the early dropout. *American Education Research Journal 26*, 385–402. https://doi.org/10.3102/00028312026003385

Strayhorn, T. L. (2009). Fittin' in: Do diverse interactions with peers affect sense of belonging for black men at predominately white institutions? *Journal of Student Affairs Research and Practice*, *45*(4), 501–527. https://doi.org/10.2202/1949-6605.2009

Strayhorn, T. L. (2008). Sentido de pertencia: A hierarchical analysis predicting sense of belonging among Latino college students. *Journal of Hispanic Higher Education*, *7*(4), 301–320. https://doi.org/10.1177/1538192708320474

Strayhorn, T. L. (2018). *College students' sense of belonging: A key to educational success for all students*. Routledge.

Strayhorn, T. L., Bie, F., Dorime-Williams, M. L., & Williams, M. S. (2016). Measuring the influence of Native American college students' interactions with diverse others on sense of belonging. *Journal of American Indian Education*, *55*(1), 49–73. https://doi.org/10.5749/jamerindieduc.55.1.0049

Strayhorn, T. L., Blakewood, A. M., & DeVita, J. M. (2010). Triple threat: Challenges and supports of Black gay men at predominately white campuses. In T. L. Strayhorn & M. C. Terrell (Eds.), *The evolving challenges of Black college students: New insights for policy, practice and research* (pp. 85–104). Stylus.

Swail, W.S. (2004). *The art of student retention: A handbook for practitioners and administrators*. Education Policy Institute.

Tachine, A. R., Cabrera, N. L., & Yellow Bird, E. (2017). Home away from home: Native American students' sense of belonging during their first year in college. *The Journal of Higher Education*, *88*(5), 785–807. https://doi.org/10.1080/00221546.2016.1257322

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of graduate medical education*, *7*(4), 669. https://doi.org/10.4300/JGME-D-15-00414.1

Tero, P. F., & Connell, J. P. (1984, April). *Children's academic coping inventory: A new self-report measure*. Paper presented at the American Educational Research Association Meetings, New Orleans, LA.

Tierney, W. G. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, *63*(6), 603–618. https://doi.org/10.2307/1170024

Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, *45*, 89–125.

Tinto, V. (1987, 1993). Leaving college: Rethinking the causes and cures of student attrition (2nd Edition). Chicago, IL: University of Chicago Press.

Tinto, V. (1988). Stages of student departure. Reflections on the longitudinal character of student leaving. *Journal of Higher Education*, *59*, 438–454. https://doi.org/10.2307/1981920

Tinto, V. (2007). *Taking student retention seriously*. Syracuse University.

Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, *19*(3), 254–269. https://doi.org/10.1177/1521025115621917

Tovar, E., & Simon, M. (2010). Factorial structure and invariance analysis of the sense of belonging scales. *Measurement and Evaluation in Counseling and Development*, *43*(3), 199–217. https://doi.org/10.1177/0748175610384811

Trowler, V. (2010). Student engagement literature review. *The Higher Education Academy*, *11*(2), 1–15. https://www.heacademy.ac.uk/system/files/studentengagementliteraturereview_1.pdf

Vaccaro, A., Daly-Cano, M., & Newman, B. M. (2015). A sense of belonging among college students with disabilities: An emergent theoretical model. *Journal of College Student Development*, *56*(7), 670–686. https://doi.org/10.1353/csd.2015.0072

Vagle, M. D. (2018). *Crafting phenomenological research*. Routledge.

Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. *Advances in Experimental Psychology*, *29*, 271–360. https://doi.org/10.1016/S0065-2601(08)60019-2

Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality*, *60*, 599–620. https://doi.org/10.1111/j.1467-6494.1992.tb00922.x

Vallerand, R. J., Blais, M. R., Briere. N. M., & Pelletier, L. G. (1989). Construction et validation de l'echelle de motivation en education (EME) [Construction and validation of the academic motivation scale]. *Revue Canadienne des Sciences du Comportement*, *21*, 323–349. https://doi.org/10.1037/h0079855

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senècal, C., & Vallières, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, amotivation in education. *Educational and Psychological Measurement*, *52*, 1003–1017. https://doi.org/10.1177/0013164492052004025

Van Gennep, A. (1960). *The rites of passage*. Routledge and Kegan Paul.

Van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Routledge.

Warren, C.A., Xavia Karner, T. (2015). *Discovering qualitative methods: Ethnography, interviews, documents, and images*. Oxford University Press.

Weiner, B. (1990). History of motivational research in education. *Journal of Educational Psychology*, *82*(4), 616. https://doi.org/10.1037/0022-0663.82.4.616

Wellborn, J., & Connell, J. P. (1987, April). *An assessment and empirical model of student engagement and disaffection in schools*. Paper presented at the meeting of the Society for Research in Child Development, Baltimore, MD.

Wells, A. V., & Horn, C. (2015). The Asian American college experience at a diverse institution: Campus climate as a predictor of sense of belonging. *Journal of Student Affairs Research and Practice*, *52*(2), 149–163. https://doi.org/10.1080/19496591.2015.1041867

Wertz, F. J., Charmaz, K., McMullen, L. M., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative analysis: Phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry.* The Guildford Press.

Worthington, R. L., Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, *34*(6), 806–838. https://doi.org/10.1177/0011000006288127

Zamudio, M., Russell, C., Rios, F. & Bridgeman, J. L. (2011). *Critical race theory matters: Education and ideology.* Routledge. https://doi.org/10.4324/9780203842713

Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. (1990). Psychometric characteristics of the multidimensional scale of perceived social support. *Journal of*

Personality Assessment, *55*(3–4), 610–617.

https://doi.org/10.1080/00223891.1990.9674095

APPENDIX A: Communication to Faculty

Communication to Faculty Gatekeepers

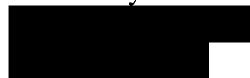
Dear (NAME),

I hope this email finds you well. I am reaching out to you today not as an employee of Riverside University but as a doctoral student with the University of Wisconsin-Milwaukee. I was hoping that you and I may find some time to talk about my dissertation study. My research focuses on exploring the essence of belonging within college peer relationships in the first year of college. Specifically, I am requesting your support in recruiting students from your (COURSE NAME) class to participate in my study.

I would like to emphasize again that this request emanates not from my role here, but as a doctoral student. I am seeking 12 students across the first-year cohort in the college of business to participate in this research. For participant criteria I am looking for first-year students who live on campus, are not involved in athletics, and represent one of the major racial/ethnic groups on campus (Asian, Black, Latinx/Hispanic, White). I would likely need ten minutes at the outset of your class to discuss the study with your students, let them ask any preliminary questions and then I would also need a list of who is in the course so I can follow up by email. If you are open to this, please let me know and I can schedule a time for us to connect, regarding when I may be able to present to your class. Ideally, I would like to recruit participants within the first 3 weeks of the semester.

Sincerely,

John Knapp
Doctoral Candidate
University of Wisconsin-Milwaukee



APPENDIX B: Communication to Student

Follow-Up Communication to Potential Study Participants

Dear (NAME),

As mentioned in my presentation to your (COURSE NAME) class, I am hoping that if you are eligible you may be interested in being a participant in my dissertation study on the experience of belonging with peers in college in the first semester of college. This dissertation study is a requirement for completing my doctoral program at the University of Wisconsin-Milwaukee.

As mentioned in class I am looking for male and female first-year students who live on campus in (UNIVERSITY NAME) housing and are not student athletes. My goal would be to conduct two 45-minute interviews with participants throughout the course of the fall semester. Participation in this study is completely confidential and voluntary, meaning you would be free to choose to discontinue your participation at any time.

If you are interested in participating, please respond to this email and we can find a time to discuss next steps. Thank you again for your consideration!

Sincerely,

John Knapp
Doctoral Candidate
University of Wisconsin-Milwaukee