

COLLEGE STUDENTS' SENSE OF BELONGING IN CAMPUS LIFE: A THEORETICAL EXAMINATION

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ABSTRACT

The conceptual study on Students' sense of belongingness in campus life has proposed an integrated framework to explain this based on Bronfenbrenner's Ecological Systems Theory.

The framework consists of individual factors (self-efficacy, self-esteem, academic confidence, emotional wellness), interpersonal factors (social, peer, and faculty support), and institutional factors (institutional support, inclusive campus climate, campus safety, and student engagement).

The supposed mediating mechanism between these ecological influences and Sense of Belonging is Emotional Connection to Campus. The framework is developed through conceptual review of relevant literature and validated measurement instrument.

Its innovation is the combination of three ecological levels within one framework as well as the distinction between emotional connection and the broader outcome of belonging.

The framework suggests that positive individual, relational, and institutional experiences foster students' emotional attachment to campus. This will then ideally increase students' general Sense of Belongingness. The framework offers a theoretically valid basis for later empirical validation across a range of higher education contexts.

Keywords: Sense of Belonging, Emotional Connection to Campus, Ecological Systems Theory, College Students, Student Engagement, Campus Climate, Institutional Support, Higher Education

I. INTRODUCTION

Sense of belonging is a crucial component of positive experiences in higher education and is defined as students' subjective feeling of acceptance, affiliation, and identification with their university community (Hoffman et al., 2002). Recent research further suggests that belonging should be viewed from a socio-ecological perspective, acknowledging the influence of individual, relational, and institutional conditions, rather than focusing solely on student-level factors (Johnson, 2022). However, previous research has tended to treat such influences in isolation, pointing to the need for a more integrated account of how different campus experiences shape belonging. Bronfenbrenner's Ecological Systems Theory (1979) provides a

useful framework for understanding how students interact with their surrounding environments. Thus, in this conceptual paper, the factors of individual, interpersonal and institutional are integrated and the mediating mechanism of Emotional Connection to Campus for Sense. Thus, this conceptual paper combines individual, inter-personal and institutional factors and suggests Emotional Connection to Campus as a mediating mechanism to Sense of Belonging. The framework contributes to the literature by distinguishing emotional connection as an affective pathway, rather than assuming it is synonymous with belonging, and by offering a holistic ecological model of students' campus experiences.

II. CONCEPTUAL FRAMEWORK

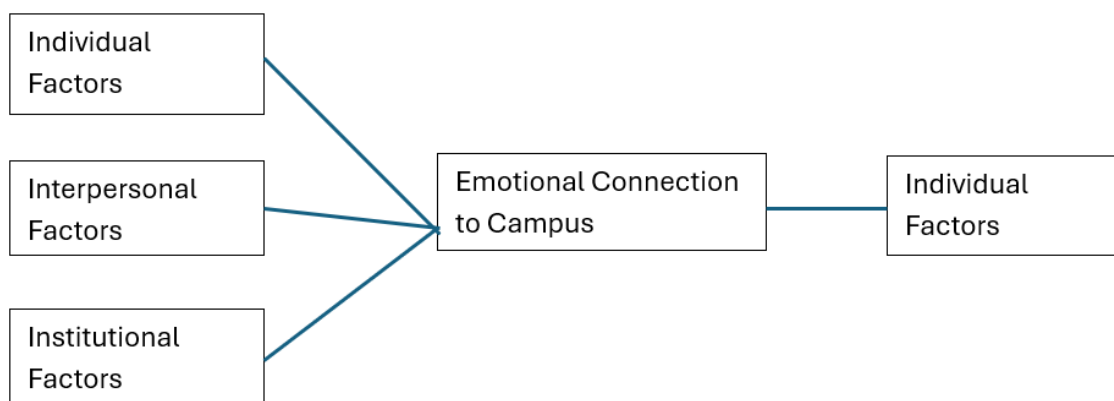


Figure 1: Conceptual framework of the study

This study adopts a conceptual research design to develop an integrated framework for explaining college students' Sense of Belonging in Campus Life.

The suggested framework is based on Bronfenbrenner's Ecological Systems Theory that describes development as a consequence of interactions between individuals and their surrounding environmental systems (Bronfenbrenner, 1979). Student level characteristics include self-efficacy, self-esteem, academic confidence and mental health. Characteristics of the immediate microsystem include social support, peer support and faculty support. Institutional factors include campus climate, campus safety, student engagement, and institutional support and serve as the broad environmental context that influences students' experiences on campus. These ecological influences result in a greater sense of belonging through the mediating mechanism of affective attachment to the university. The novelty lies in integrating individual, interpersonal, and institutional influences into one ecological framework to explain how students develop emotional connection and, eventually, stronger sense of belonging in campus life.

III. DISCUSSION

3.1 Individual factors

Self Efficacy

Self-efficacy is the belief that one has the ability to deal with difficult situations, to overcome problems and to master the successful achievement of the goals one sets. Drawing from Social Cognitive Theory, self-efficacy influences how people view challenges, how much effort they will put in, and their degree of persistence when faced with setbacks (Bandura, 1997). Students who have a strong sense of self-efficacy are likely to be more confident and persistent in meeting academic and other challenges on campus, which may promote active participation and positive engagement in campus life. In this study, self-efficacy is conceptualized as a general belief of students' ability to cope with difficult and unexpected situations and to find appropriate solutions for problems. This conceptualization is similar to the 10-item General Self-Efficacy Scale (GSE) developed by Schwarzer and Jerusalem (1995) which measures perceived ability to handle difficult situations, achieve goals, deal with unforeseen events, stay calm in difficult times and create solutions to problems. The scale showed acceptable reliability and construct validity in different cultural contexts (Luszczynska et al., 2005). Therefore, self-efficacy is an important individual factor in the present study, since students' beliefs about their own capabilities may affect their willingness to engage with their campus environment and develop a stronger emotional connection and sense of belonging.

Self Esteem

Self-Esteem is an individual's overall evaluation and attitude toward the self, including feelings of self-worth, self-competence, and self-acceptance. In the current study, global self-esteem was assessed by the 10-item Rosenberg Self-Esteem Scale (RSES) developed by Rosenberg (1965), who used positively and negatively worded statements. The scale measures the respondents' views of their own worthiness, positive attributes, self-regard, satisfaction with the self, and feelings of inadequacy or failure. The RSES is a unidimensional scale and has a four-point Likert response format (strongly agree to strongly disagree) with the negatively worded items reverse-scored.

Academic Confidence

Academic Confidence refers to the students' confidence that they can engage effectively with academic activities and perform the behaviours expected within their degree program. In the current study, the 17-item Academic Behavioural Confidence (ABC) Scale developed by (Sander et al., 2011) is used to measure academic confidence. The scale has four dimensions: Grades, Study, Verbalising and Attendance. Grades reflect students' confidence that they will succeed academically and do well in assessments. Studying is the students' confidence that they can organise and manage their academic study activities effectively and successfully. Verbalising refers to the confidence students have in articulating their ideas, asking questions,

participating in discussions and communicating their understanding in academic settings. Attendance is a measure of the students' confidence and willingness to attend classes regularly and participate consistently in academic activities.

Emotional well-being

Emotional wellness refers to the positive dimension of students' emotional functioning, for example, happiness, calmness, vitality, restfulness, and interest in daily activities. In campus life, emotional wellness is theoretically relevant to students' perceptions and engagement with their academic and social environment. Positive mood, relaxation, energy, restfulness and interest in everyday life are considered as important aspects of well-being by the WHO-5 Well-Being Index (Bech et al., 2003). Students who have positive mental health may be more willing to get involved in campus activities and form meaningful relationships. Conversely, lower well-being can lead to social isolation and a lessened sense of connection to campus. So, psychological health can be seen as an important individual factor influencing the students' sense of belonging in campus life.

3.2 Interpersonal Factors

Social Support

Social support refers to the perceived availability of meaningful assistance, encouragement, and emotional connection from significant people in students' lives. In the present conceptual framework, social support is characterized as a critical interpersonal factor for sense of belonging to campus life of college students. The Multidimensional Scale of Perceived Social Support (MSPSS) conceptualizes social support in three sources: family, friends and significant others, and has demonstrated strong factorial validity and good reliability in university undergraduates (Zimet et al., 1988). This factor structure was further confirmed among college students, adding further support to the relevance of these three sources of support in student populations (Dahlem et al., 1991). Furthermore, recent research has identified a theoretical and empirical link between perceived social support and sense of belonging in university students, emphasizing the significance of supportive interpersonal relationships in campus life (Mtshweni, 2024). Thus, social support can be conceptualized as an interpersonal resource that can enhance students' sense of acceptance, connection and belonging to the college community.

Peer support

Peer Support is the support, encouragement, understanding and interpersonal connection students gain from fellow students. Peer support is an important interpersonal resource in the campus life context, because supportive relationships with classmates can facilitate academic cooperation, social interaction, and the students' sense of belonging to the college community (Baker et al., 2000; Tinto, 1993). The Sense of Belonging Scales by Hoffman et al. (2002) measure perceived peer support as a separate dimension, evaluating students' access to and

interactions with peers within their academic environment. Later research has confirmed the relevance and reliability of perceived peer support among university students, with the construct showing good internal consistency (Verbree et al., 2025). Research with undergraduate students has also shown the importance of peer support in students' adjustment to college life (Horgan et al., 2016). Peer support can therefore be conceptualized as an important interpersonal factor that may enhance students' social connection, participation and sense of belonging in campus life.

Faculty Support

Faculty support was defined as students' perceptions of faculty as accessible, understanding, responsive, and willing to provide both academic and personal support. As Hoffman et al. (2002) suggested, perceived faculty support was a significant dimension of college students' sense of belonging, including how comfortable students felt to approach faculty, ask for academic help, discuss problems, and receive understanding and empathy. Similarly, Shelton (2003) highlighted the role of faculty support in the academic experience and retention of students, especially through supportive faculty-student relationships. Recent research of university students also show that positive faculty relationships and perceived academic support contribute to students' sense of connection and belonging in higher education (Strayhorn, 2019). Therefore, faculty members' support can theoretically be understood as an important interpersonal factor that enhances students' perceptions of acceptance, connection, and belongingness in campus life.

3.3 Institutional Factors

Institutional Support

Institutional support is conceptualized as students' perception of the extent to which their college provides resources, structures, and practices that promote their academic development and campus experience. Lim and Ho (2022) developed and validated the Institutional Support Questionnaire (ISQ) which contains four dimensions, namely, academic competency support, teaching practices, tutors' characteristics, and use of technology in instruction. Academic competency support refers to support to develop students' academic capabilities, while teaching practices refer to the effectiveness of instructional approaches. Tutors' characteristics refer to supportive qualities of teaching personnel, while technology in instruction refers to institutional provision and use of technological resources for learning. The ISQ demonstrated satisfactory psychometric properties and thus can be used to assess the perceived institutional support in tertiary education. Likewise, Wintre et al. (2009) found that students' perceptions of university support and institutional structure were important to their university adjustment. Thus, these four dimensions can be theoretically positioned as institutional factors that could contribute to students' engagement, adjustment and sense of belonging in campus life.

Inclusive Campus Climate

An inclusive campus climate is students' perceptions that their institution provides a welcoming, equitable, responsive, and supportive environment for them to participate and feel valued. Sanders et al. (2026) developed and validated a 46-item Perceived Campus Climate Scale with five factors: University Responsiveness, Community and Connection, Equity and Belonging, Campus Culture and Student Experience, and Student Satisfaction. University Responsiveness is an institutional concern for the students' needs and welfare; Community and Connection measures the extent to which students feel valued and connected to the campus community. Equity and Belonging measures whether students' identities are respected and supported. Campus Culture and Student Experience measures perceptions of a positive and welcoming campus environment. Student Satisfaction measures students' overall positive evaluation of their institution. In addition to this more general approach, Byrd (2018) found that inclusive campus climate may also include intergroup interactions (frequency and quality), equal status, positive interaction support, cultural socialization, cultural competence promotion, and critical consciousness. Hence, the current conceptualization is novel in integrating institutional responsiveness, connection, equity, culture and satisfaction as interrelated dimensions through which an inclusive campus environment may promote students' sense of belonging in campus life.

Campus Safety

Campus safety is the extent to which students perceive their college as a safe place, and one with competent systems for the prevention and response to threats to safety. The Students' Perceptions of Campus Safety Scale, that was originally developed by Carrico (2016), and recently validated on university students, consists of two dimensions: Prevention of Crime Risks on Campus and Campus Safety Procedures. The first index reflects the institution's efforts to prevent crime, threats, harassment, and other unsafe situations, and the second index reflects the presence and effectiveness of the institution's safety procedures, policies, and response mechanisms. The validated 14-item version showed strong reliability and acceptable construct validity (Göçmen et al., 2026). Additional research shows that students' perception of safety is affected by the physical environment of the campus and perceived crime risk. Environmental factors such as a lack of natural surveillance are linked to worse safety perceptions (Lorenc et al., 2022). Campus-safety research similarly finds that institutional safety programs influence students' perceptions of how well universities protect them (Schafer et al., 2018). Expanding these perspectives, the innovation of the current conceptualization is to consider campus safety not only as a security issue, but as an institutional condition that can allow students to engage confidently in academic and social campus life and thus enhance their sense of belonging.

Student Engagement in campus

Student engagement in campus life is the extent to which students participate in, interact with, and become involved in the academic, social, and relational experiences available in the

campus environment. The National Survey of Student Engagement (NSSE) defines student engagement as the quality of students' involvement and experience of connection to university life through various means such as collaborative learning, interactions with diverse others, student-faculty interaction, quality of interpersonal interactions, and a supportive campus environment (National Survey of Student Engagement [NSSE], 2026). According to the NSSE, students' overall education is influenced by the quality of interactions with peers, faculty, advisors, and institutional staff and opportunities for social engagement and participation in campus activities. Furthermore, recent validation of the Short University-Program Student Engagement Questionnaire (SUPSEQ) provides more evidence for multidimensional measurement of student engagement across active/collaborative learning, student-faculty interaction, integrated learning, reflective learning, and social outcomes (Jiang et al., 2026). What is novel about the present conceptualization is that it not only frames student engagement as academic participation or classroom involvement but also as a broader campus-life construct, which includes peer interaction, faculty interaction, diverse social engagement, quality of relationships, and participation in a supportive institutional environment. This perspective is especially helpful in understanding how students' active participation in campus life can be a way of contributing to the development of a stronger sense of belonging while keeping engagement conceptually separate from belonging itself.

3.4 Emotional Connection to Campus

Emotional Connection to Campus is the affective tie students develop with their campus community that comprises feelings of attachment, connection, and meaningful interpersonal relationships. It is based on the shared emotional connection dimension of the Brief Sense of Community Scale, which has been empirically validated as a distinct component of sense of community (Peterson et al., 2008). In higher education, this dimension can be reflected in students' feelings of emotional connectedness to the campus and meaningful relationships with other members of the campus community. Recent university-based research has also adapted the BSCS to measure students' emotional connection specifically to their campus community, reinforcing its contextual relevance for higher education. The innovation of the present conceptualization is the consideration of emotional connection as an affective mechanism, which precedes and contributes to a broader sense of belonging rather than equating emotional connection and belonging as interchangeable constructs. The proposed framework, therefore, suggests that positive individual, interpersonal, and institutional experiences enhance students' emotional connection with campus, which in turn, engenders a stronger overall sense of belonging.

3.5 Sense of Belonging

Sense of Belonging is the degree to which college students feel accepted, supported, valued, and a sense of meaningful connection to their university community. In the current study, it is conceptualized through perceived peer support, perceived faculty support and comfort, classroom comfort, perceived isolation, and empathetic faculty understanding based on the

validated Sense of Belonging Scale of Hoffman et al. (2002). The University Belonging Questionnaire also identifies university affiliation, university support and acceptance, and faculty and staff relations as important dimensions of university belonging, further supporting the construct. Belonging is expected to be strengthened by increasing students' self-efficacy, self-esteem, academic confidence and emotional wellness, and psychological readiness, and positive engagement with campus life. Social support, peer support, and faculty support can increase belonging by offering interpersonal acceptance, meaningful relationships, and academic and emotional support. Institutional support, inclusive campus climate, campus safety, and student engagement in campus life are anticipated to create an environment in which students feel valued, safe, included, and actively involved. Finally, Emotional Connection to Campus is proposed as the mediator in which these individual, interpersonal, and institutional experiences are translated into a greater sense of belonging. The novelty of the proposed framework is in the integration of these three levels of antecedents and the conceptualization of emotional connection as the affective pathway through which students' campus experiences lead to a broader sense of belonging rather than a direct consequence of any campus factor.

IV. THEORETICAL IMPLICATIONS

The framework contributes to belonging research within higher education by applying Bronfenbrenner's Ecological Systems Theory to integrate the individual, interpersonal and institutional factors into one framework (Bronfenbrenner, 1979). It suggests Emotional Connection to Campus as a separate affective mechanism and not synonymous with Sense of Belonging (Peterson et al., 2008). Individual factors represent students' personal preparedness; interpersonal factors represent relational experiences; and institutional factors represent the wider campus climate. Consequently, the framework offers a multilevel understanding of how different ecological conditions might foster students' sense of belonging (Johnson, 2022).

V. PRACTICAL IMPLICATIONS

The framework suggests that institutions should improve the Sense of Belonging by improving the conditions that foster students' Emotional Connection to Campus. Faculty mentoring, peer-support programs, student-faculty interaction, and meaningful campus activities can help facilitate interpersonal connection and participation. Responsive support, safe and inclusive campus climate, and opportunities for active student engagement should also be included in institutional initiatives (Lim & Ho, 2022; Sanders et al., 2026). This allows administrators to implement coordinated interventions at the individual, interpersonal and institutional levels instead of relying solely on standardized belonging programs. Such interventions may foster a campus climate in which students can feel supported, valued, connected and emotionally engaged in their institution.

VI. LIMITATIONS

The study is a conceptual paper and the proposed relationships and the mediating role of Emotional Connection to Campus have not been empirically tested. The framework includes several constructs at three ecological levels that may pose challenges regarding model complexity and empirical parsimony. Some newer measures of campus climate and student engagement (e.g., Jiang et al., 2026; Sanders et al., 2026) although incorporating established measurement instruments, still require validation in diverse cultural and institutional settings. Thus, the proposed associations should be considered as theoretically driven hypotheses rather than established causal links. Future empirical studies are needed to validate the framework and to test the strength and direction of the proposed relationships.

VII. FUTURE SCOPE OF THE STUDY

Future research should empirically test the proposed framework using Structural Equation Modeling (SEM) to explore the relationships between the identified constructs. Longitudinal research can determine if individual, interpersonal, and institutional experiences precede Emotional Connection to Campus, and then contribute to Sense of Belonging. Cross-institutional and cross-cultural studies can test for the consistency of the proposed relationships across different higher education contexts. Future research could also examine moderators such as year of study, residential status, first-generation status, and disciplinary context. Additional research employing qualitative or mixed-methods approaches could explore how students experience the transition from supportive campus conditions to emotional connection and ultimately belonging.

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