Sorority/Fraternity Facilities:
Does Type Make a Difference in the Member Experience?

by

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Abstract

The physical environment on a college campus plays an important role in enhancing student learning and positive well-being (Garcia, 2017; Strange & Banning, 2015) and can influence a student's sense of community and campus involvement (Rullman & van den Kieboom, 2012; Wessel & Salisbury, 2017). While sorority/fraternity facilities can contribute to the student experience, the cost of these spaces may influence a student's decision to join (McClure & Ryder, 2018). The lack of research on the value of sorority/fraternity facilities (Biddix, Matney, Norman, and Martin, 2014) was an impetus for this study.

The purpose of this quantitative study was to determine if sorority/fraternity member experiences differed across facility types. Strayhorn's (2012, 2019) research on sense of belonging and Bronfenbrenner's (1986; 1993) ecology of human development theory served as the theoretical foundation for this research. The study evaluated participant responses on the 2017-2018 Fraternity and Sorority Experience Survey (FSES) by comparing outcomes established as appropriate for student learning in the higher education environment (Council for the Advancement of Standards in Higher Education [CAS], 2015). Four factors emerged as themes of the sorority/fraternity outcomes examined in this sample: fraternal values, active intervention, intervention perceptions, and cultural appreciation. The results revealed that sorority/fraternity members with chapter mega facilities actively intervened in problematic situations more often than those with moderate, meeting-only, and no facility. However, those with no facility reported higher ratings on their chapter's impact on cultural appreciation and fraternal values than those in any of the other facility types. There were small but

significant differences in intervention perceptions across facility types. Students with moderate, meeting-only and no chapter facility placed a higher value on intervention than students in chapters with mega facilities. Results on council differences indicated IFC and Panhellenic members actively intervened in problematic situations more frequently than members of MGC and NPHC. However, students in NPHC and IFC had higher intervention perception ratings than those in other councils. As expected, members of NPHC and MGC chapters demonstrated a higher sense of cultural appreciation than their IFC and Panhellenic peers. Limitations of the study and recommendations for further research were discussed.

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List of Abbreviations

ANOVA	Analysis of Variance
BMI	Body Mass Index
CAS	Council for the Advancement of Standards in Higher Education
CSCF	Center for the Study of the College Fraternity
CU	Clemson University
ECU	East Carolina University
FSES	Fraternity and Sorority Experience Survey
IFC	Interfraternity Council
LSU	Louisiana State University
MANOVA	Multivariate Analysis of Variance
MGC	Multicultural Greek Council
NC State	North Carolina State University
NALFO	National Association of Latino Fraternal Organizations
NASPA	National Association of Student Personnel Administrators
NAPA	National Asian Pacific Islander American Panhellenic Association
NIC	North American Interfraternity Conference
NMGC	National Multicultural Greek Council
NPC	National Panhellenic Conference
NPHC	National PanHellenic Council
NSSE	National Survey of Student Engagement
SPSS ®	Statistical Package for Social Sciences
WC	Wofford College

UA	University of Alabama
UCLA	University of California-Los Angeles

Chapter 1: INTRODUCTION

Context for the Study

As a career professional in Student Affairs administration and through my own personal experience, I have seen first-hand the value of sorority and fraternity membership. I entered my freshman year as a first-generation college student having little to no understanding how to navigate academic life on campus. Before classes began, I participated in sorority recruitment and was fortunate to be offered a sorority bid. I accepted with enthusiasm and have never regretted this decision. During those collegiate years, my sorority sisters supported me through personal and academic struggles and challenged me to be my best.

While I felt a tremendous sense of community within my own organization, I was also closely connected with women in other Greek organizations. The housing model at my undergraduate institution was what I define as a "moderate facility" – where each sorority had a floor in a residence hall and a dedicated chapter room for organizational use. All National Panhellenic Conference (NPC) and National PanHellenic Council (NPHC) sororities were given the opportunity to utilize space for this purpose. Interfraternity Council (IFC) organizations also occupied space in traditional residence halls but, to my knowledge, no NPHC fraternity lived as a group in residential housing. This type of facility seemed to meet our needs and was cost effective, which was important to me since I was responsible for paying all sorority fees.

Throughout my career, I have worked at four institutions - three of which had sorority and fraternity communities. Of these three, the chapter facility options varied. On one campus, there was no dedicated space for chapters to live or meet. On another, the

NPC sororities had residential and meeting room space in a residence hall, IFC fraternities had chapter houses on and off campus, and NPHC and Multicultural Greek Councils (MGC) chapters had no dedicated space. At the third institution, NPC, IFC and NPHC chapters had the opportunity to purchase and utilize housing space, defined in this study as "mega facilities." In the latter two models, the student chapter members and, in some cases, the individual chapter housing corporations funded the cost of the facilities. At each campus with sorority/fraternity communities, I heard administrators, students, and alumni continually reference the mega facility experience as the "better" model for chapters. University officials saw these facilities as a way to recruit students and address deficiencies in the amount and type of on-campus housing. Students idealized the experience of those with mega facilities, often citing the beauty and grandiosity of the houses.

These experiences caused me to question the role sorority/fraternity facilities play on members' outcomes. While certainly more costly, are they "better?" The goal of this study was to examine differences among members based on facility type in hopes of providing university administrators and inter/national organizations data to help inform (or justify) their decisions.

History of Sorority and Fraternity Facilities

Residential facilities on college campuses have evolved since the early days of American higher education. The earliest U.S. colleges were typically located in a single structure that included all institutional functions – classrooms, residential apartment spaces for the president and faculty, a chapel, dining hall, library, and bedrooms for students (Turner, 1987). At that time, educators believed a shared living environment

could improve a student's intellectual and moral development (Yanni, 2019). This philosophy served as the foundation for today's American college residence hall where a key priority is to promote student socialization and interaction (Yanni, 2016).

The origins of college residential facilities were also rooted in exclusion (Thelin, 2011). Harvard's second facility was constructed in the 1650's to house Native American students because "almost no white person would dwell with an Indian" (Yanni, 2019, p. 35). In the late Victorian era, it was common for poor students to reside in dilapidated boarding houses while wealthy men lived in elaborate fraternity houses (Yanni, 2019). To fund these houses, fraternities increased annual dues, reinforcing the class hierarchy within these groups and further separating them from non-Greek students (Syrett, 2009). The fraternity charging the highest dues "attracted the wealthiest and most powerful men" (Yanni, 2019, p. 76). Exclusivity was highlighted in an 1895 *American University Magazine* article on Dartmouth fraternities (as cited in Sasso, Nasser, Badruddin, & Becque, 2019):

> The idea of chapter houses as it came from other colleges was discussed by many of the chapters, and the prevalent belief was that a chapter house would tend to isolate its occupants from the rest of the college, or worse still, might create factions in college affairs. The Dartmouth man has always looked with abhorrence upon anything savoring of an aristocracy. (Dartmouth College, 1936, p. 56).

As today's colleges and universities seek to attract more students, the physical environment remains an important and costly element of campus culture. Living in a campus residence hall can be more expensive than living off campus (Jacob, McCall, &

Stange, 2013). Likewise, student organizations and activities can be cost-prohibitive, thereby limiting involvement to those with the financial resources to participate (McClure & Ryder, 2018). On campuses with sorority and fraternity mega-housing facilities, the differing opportunities further exacerbate the social inequities between the poorest and wealthiest students (Yanni, 2019). Because peer relationships are seen as a cornerstone of a student's sense of belonging (Vaccaro, Daly-Cano, & Newman, 2015), there is no doubt organizational participation is valuable. As such, it is important to determine whether the facilities that drive up the cost of membership bring enough value to justify the expense.

Sorority and Fraternity Membership Dues, and Facility Types/Costs

Membership in a sorority or fraternity comes with a price. Costs vary by chapter, inter/national organization, and institution. To promote transparency, many campuses publish chapter fee information in printed and online formats. Because facility types and costs vary by chapter, sorority/fraternity life offices sometimes do not include facility costs in the published materials. As costs may influence a potential member's decision to join (Fouts, 2010), it is important that institutions disclose information so students can make an informed decision. An example of membership cost differentials can be found on the East Carolina University (2019) website, where a chart listing average dues for new and returning members is available. In comparing dues by council, the new member fee for NPHC members at East Carolina University (ECU) was the highest at $1,500. However, semester dues for active members were the lowest for MGCs at $100 and for NPHC at $200 (East Carolina University [ECU], 2019). Membership dues for NPHC organizations also vary at Louisiana State University (LSU) (2019). One-time expenses

(new member fees, chapter dues, national dues, and initiation costs) range from $400-$1,500. For returning members, average semester costs range from $100-300 (Louisiana State University [LSU], 2019).

When institutions plan and design sorority/fraternity facilities, decisions are determined by the needs of their community and funding ability of the chapters and alumni (Ray & Rosow, 2012). North Carolina State University (NC State) is attempting to accommodate the varying types of chapters through the design of a Greek village (North Carolina State University [NC State], n.d.). When complete, the NC State project will include twenty free-standing organization houses, townhouses for smaller chapters, a community center, amphitheater, and additional amenities (NC State, n.d.). Through a public-private partnership, the $100,000,000 Greek village is being funded by the university, private donations, and housing corporations of individual chapters (NC State, n.d.). The North Carolina State model incorporates a blend of large houses as well as community space for smaller organizations.

Mega facilities are often seen on campuses where the sorority/fraternity community has the funding to support the cost and where the property sizes allow for large-scale construction (Ray & Rosow, 2012). Tema Flanagan and colleagues (2017) researched more than 1,300 sorority and fraternity properties on 50 college campuses. Houses belonging to NPC organizations averaged around 30,000 square feet, more than three times the size of an average piece of property for a single family in the United States (Flanagan, 2017). According to the study, the average property value for sororities was $1.22 million while the average for fraternities was $1.05 million (Flanagan, 2017). Property costs varied by location. For example, at Vanderbilt University, the average

property value for fraternities was $3.09 million while the property value for sororities at the University of Colorado Boulder averaged $3.46 million (Flanagan, 2017).

Mega facilities are large and impressive and often include luxurious features and finishes. At the University of Alabama, more than $13 million was spent on the Phi Mu sorority house (Fennelly, 2015). This facility contains marble floors, a baby grand piano, and expensive light features (Fennelly, 2015). Another University of Alabama sorority, Gamma Phi Beta spent $12 million in 2015 to construct their current 40,000 square foot house that features beds for 72 members, a 24-hour study room, and a movie gallery (Fennelly, 2015).

The cost of facilities is reflected in the dues of the chapter's members. According to the University of Alabama's (UA) Panhellenic Association (University of Alabama [UA], 2017), the average new member semester cost for someone living outside of the house in 2017 was $4,100 with the highest being $4,700. These fees included membership dues, facility fees and a meal plan (UA, 2017). By comparison, in 2017, the average semester cost of chapter dues (excluding housing and meals) for Clemson University (CU) Panhellenic new members was $752 (CU, 2018.) The lowest meal plan cost for students living on campus at Clemson was $2,010 per semester (Clemson University [CU], 2018). The difference in cost for new members of Panhellenic chapters at the University of Alabama and at Clemson University was as much as $2,400 per semester.

At campuses with a small sorority/fraternity community, other facility styles more appropriately address the needs of the institution and its students. As an example, Wofford College (WC), a small liberal arts institution in Spartanburg, South Carolina

designed a Greek village to improve chapter facilities and enhance the student experience (Wofford College [WC], 2014). Wofford's sorority and fraternity houses are non-residential, offering meeting/community space for all IFC, NPC, NPHC, and multicultural fraternities and sororities (WC, 2014).

On some campuses, living in sorority or fraternity housing is less expensive than university residence halls. For example, a 2007 study found the average cost of students living in Kansas University sorority or fraternity housing was $6,000 per year including housing, meal plan, chapter dues and fees while non-affiliated resident students paid an average of $6,100 per year for room and board (Erickson, 2007). It is important to note that because not all students chose to live on campus or have the funding to do so (Turley & Wodtke, 2010), comparisons between on campus housing types does not account for students that may want to be members but would not do so if an organization has live-in requirements.

Because membership costs may prohibit some students from joining, some national organizations find ways to support potential and current members by off-setting their costs. For example, Alpha Omicron Pi sorority, Sigma Nu fraternity, and Kappa Alpha Theta sorority offer scholarship funds to support members' dues (Kamath, 2017). Delta Gamma sorority and Sigma Delta Tau sorority offer current members the opportunity to pool their money to support other members who need financial assistance (Kamath, 2017).

While sorority and fraternity facilities provide members a place to gather, connect, and study, it is essential that we balance student interest with overall cost of attending college. As a mother of three children involved in sorority and fraternity life, I

am keenly aware of the costs of membership. In addition, as a higher education professional with interest in education for all students, I continue to be concerned that the cost of these experiences limits accessibility and further promotes social exclusion, particularly in a system already characterized by exclusionary practices.

Why does cost matter? As social integration and a student's sense of belonging are positively associated with persistence and retention (Morrow & Ackerman, 2012), and fraternities/sororities play a role in fulfilling a student's sense of community (Hevel, Martin, Goodman, & Pascarella, 2018; Walker, et al., 2015), it is important that higher education administrators understand the effects of costs on a student's ability to participate in involvement opportunities (McClure & Ryder, 2018). Furthermore, as we examine the cost of sorority/fraternity membership, we should assess in the larger context of the rising cost of education.. A 2016 Higher Education Research Institute (Eagan, Stolzenberg, Ramirez, Aragon, Suchard, & Hurtado, 2016) report indicated that 55.9% of incoming students expressed concern about their ability to pay for their college education. In the same study, 15.8% of women expressed major concern about financing college compared to 10.1% of men. Twenty-two percent of Black students reported major concerns about paying for college compared to 9.2% of White students. Additionally, 15% of freshmen stated they could not afford their first-choice college (Eagan et al., 2016).

The campus physical environment provides spaces that can enhance learning and influence positive well-being (Garcia, 2017; Strange & Banning, 2015) and can play an important role in the recruitment of college students (Brown, Volk, & Spratto, 2019; McLane & Kozinets, 2019). In addition, as the design of campus facilities can contribute

to the student experience, so to do the students who frequent those spaces. In the college setting, peers play an important role in facilitating social interaction and sense of belonging (Strayhorn, 2012). These interpersonal relationships can have a direct effect on a student's environment, strengthening or diminishing their social and academic development (Barber, Espino, & Bureau, 2015). Specifically, Strayhorn (2012) emphasized, sense of belonging "likely changes as circumstances, conditions, and contexts change" (p. 22). Bronfenbrenner's (1977, 1997, 2005) ecological systems theory further explains the influence of one's environment on an individual's relationships where, in the microsystem, the interactions are likely to be personal, significant and meaningful. Sororities and fraternities offer opportunities for social engagement in this context (Braxton, Doyle, Hartley, Hirschy, Jones, & McClendon, 2013). The formal and informal spaces where sorority and fraternity organizations gather offer members a community in which to socialize, collaborate, and develop (Montgomery & Miller, 2011).

Theories of involvement, engagement, and belonging show a positive linkage between social connections and positive educational outcomes (Long, 2012a; Strayhorn, 2012; Walton & Cohen, 2011). When measuring developmental outcomes of students in sororities and fraternities, it is useful to consider the environment and its interrelated systems as a context for student learning (Barber, et al., 2015). The principles of human ecology, as introduced by Bronfenbrenner (1979) note that people are influenced by their environment, resulting in reinforcement or adjustment of certain identities and behaviors. Renn and Patton (2010) assert that Bronfenbrenner's model, which involves interactions

among people, processes, contexts, and time is informative in explaining differences in learning outcomes for college students in a similar setting.

In an assessment of the research on sorority/fraternity involvement, Biddix, Matney, Norman, and Martin (2014) noted the absence of sorority/fraternity facilities in the literature. More specifically, information on sorority/fraternity residences "rarely surfaced in the literature outside of demographic characteristics in alcohol studies" (Biddix et al., 2014, p. 10). As such, this study on facilities seeks to contribute to the body of research on the sorority/fraternity experience.

Definition of Terms

Before moving into further discussion around the purpose of this study, it is important to first define terms associated with the research.

- *Chapter:* A local group associated with an inter/national organization (National Panhellenic Conference [NPC], 2017).
- *Fraternity:* An organization typically consisting of men who are associated for the purposes of socialization and brotherhood. The term *fraternity* was derived from the Latin term *frater* meaning "brother" (Syrett, 2009). While women's organizations founded before 1882 refer to themselves as "women's fraternities" (Syrett, 2009), *fraternity*, as a term for purposes of this study refers to men's organizations.
- *Greek:* A general term to describe a member or an organization on a college campus that is social in nature. In most cases, the names of the organizations consist of Greek letters (Torbenson & Parks, 2009).

- *Historically Black College and University (HBCU):* Higher education institutions historically founded for the purpose of educating Black students in the United States (Torbenson & Parks, 2009).
- *IFC organization:* Interfraternity Council organizations refer to fraternities in which the membership is historically White (Syrett, 2009).
- *Meeting-Only Facility:* A dedicated space on campus for a sorority/fraternity chapter to meet. May also apply if the council shares the space and chapters use for meetings on a rotating basis.
- *Mega Facility:* A sorority or fraternity chapter facility that includes residential spaces for at least five members, meeting/study space and a chapter dining area, where meals are typically catered in or prepared by a chef more than three times per week.
- *Moderate Facility:* A sorority or fraternity chapter facility that includes residential space for at one or more members and a general gathering space for meetings or studying. May also include a kitchen but chapter meals are not served on a regular basis.
- *Multicultural Greek Council (MGC):* MGC is the term used in this study to reflect culturally-based Greek lettered organizations including those within the National APIDA Panhellenic Association (NAPA), the National Association of Latino Fraternal Organizations (NALFO), the National Multicultural Greek Council (NMGC), and other culturally-based sororities and fraternities not affiliated with (inter)national umbrella organizations.

- *National PanHellenic Council (NPHC):* An (inter)national umbrella council comprised of nine organizations (four sororities and five fraternities) whose members are historically and traditionally Black (Kimbrough, 2003).
- *Panhellenic organization:* Panhellenic organizations refer to sororities in which the majority of its membership is historically White (Torbenson & Parks, 2009). These organizations are also recognized by the National Panhellenic Conference (NPC, 2017) – the governing council for which they belong.
- *Predominantly White Institution (PWI):* Higher education institutions in which more than 50% of the enrollment consists of White students (Brown & Dancy, 2016).
- *Sense of Belonging:* A number of researchers have defined this term; however, Strayhorn's (2019) working definition provided the framework for this study:

  > In terms of college, sense of belonging refers to students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campus such as faculty, staff, and peers (p. 4)

- *Sorority:* An organization typically consisting of women who are associated for the purposes of socialization and sisterhood. In 1882, a Syracuse professor coined the term *sorority,* derived from the Latin term "soror," meaning "sister" (Syrett, 2009). Note - Most women's organizations founded before 1882 refer to themselves as "women's fraternities" (Syrett, 2009). Those founded in 1882 or

later utilize the term “sorority” to reflect the newly established term (Syrett, 2009).

Purpose of the Study

The purpose of this research was to better understand the relationship between sorority/fraternity chapter facilities and a member’s experience. Research indicates campus facilities can help shape a student’s involvement, sense of community and engagement with others (Rullman & Harrington, 2014; Rullman & van den Kieboom, 2012; Wessel & Salisbury, 2017). Results from studies on sorority/fraternity residential facilities showed increased engagement with the organization (Blackburn & Janosik, 2009) and opportunities for leadership development (Love, 2015). In contrast, other research showed alcohol and drug use was more prevalent for those living in chapter facilities (Sidani, Shensa, & Primack, 2013). Though the campus physical environment where students dine, gather, study and meet can help shape social integration (Wessel & Salisbury, 2017), little research on sorority/fraternity chapter facilities explores this concept in the context of a member’s experience (Biddix, et al., 2014).

As this study examined student experiences, Strayhorn’s (2012) work on sense of belonging and Bronfenbrenner’s ecological systems model (1979, 1997) provided the theoretical framework for this research. Given the importance of peers in a student’s sense of belonging (Strayhorn, 2019), the ecology model (Bronfenbrenner, 1979, 1997) begins to explain these interactions in the nested networks of an individual’s environment. Specifically, in the microsystem, a student’s interactions with other chapter members can influence their personal identity and sense of belonging. In the mesosystem, that chapter, as a microsystem interacts with other microsystems (chapters, the institution,

other councils, etc.). These connections and exchanges shape a sorority/fraternity member's experience. As such, Bronfenbrenner's (1979, 1997), Strayhorn's (2019) research, and the relationship between the two provided an applicable theoretical foundation for this study.

Methods

I used a quantitative correlational design method to determine the relationship between sorority/fraternity facilities and a member's organizational and institutional experience. The 2017-2018 Fraternity and Sorority Experience Survey (FSES) was the instrument used in this study. The Council for the Advancement of Standards in Higher Education (CAS) student learning domains (2015) served as the foundation for assessing the student experience through the FSES. Five of the CAS (2015) student outcome domains were applicable to this study. They included: 1) knowledge acquisition, construction, integration and application, 2) intrapersonal development, 3) interpersonal competence, 4) humanitarianism and civic engagement, and 5) practical competence. The specific FSES questions that aligned with each construct were analyzed to determine participants' experiences. The sixth domain, cognitive complexity (CAS, 2015) was not included as a construct as it was not directly measured in the FSES.

The initial CAS learning outcomes were released in 2003 and included sixteen domains of learning with achievement indicators for each (CAS, 2015). CAS (2015) later revised these outcomes to incorporate models outlined in *Learning Reconsidered* (Keeling, 2004), *Learning Reconsidered 2* (Keeling, 2006) and other academic associations and accrediting agencies. The updated outcomes are categorized into six domains and include examples of learning outcomes for each (CAS, 2015). The student

learning outcome dimensions associated with each domain were developed to assist higher education practitioners with assessment and program development (Gulley, S. R. Dean, & L. A. Dean, 2017).

Using the CAS student learning outcomes as a framework to assess member experiences, a factor analysis was conducted on the applicable FSES questions to determine thematic constructs. From the twenty-four FSES questions analyzed for this study, four factors emerged: fraternal values, active intervention, intervention perceptions, and cultural appreciation. Note - though "fraternity" and "fraternal" typically refers to men's organizations, men's and women's groups founded before 1882 use these terms. "Fraternal" is terminology commonly used in sorority/fraternity research to characterize all groups, regardless of gender type. These factors serve as the dependent variables for this study. The methods for conducting the factor analysis are outlined in chapter three.

The independent variables were facility type and council type. Facility types included mega facilities, moderate facilities, meeting-only facilities, and no facility. Council types encompassed each major category of the sorority/fraternity population: National PanHellenic Council (NPHC), Multicultural Greek Councils (MGC), National Panhellenic Conference (NPC), and Interfraternity Council (IFC). With assistance from the Center for the Fraternity and Sorority Research, who hosts the survey, responses from chapters with varying organization facility types were collected for analysis.

Research Questions and Hypotheses

1. Do members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility and council type?

H_1: Members of sororities and fraternities with chapter mega facilities will actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type.

H_2: There will be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of council type) and those without chapter facilities (regardless of council type).

2. Does the cultural appreciation of members differ by facility and council type?

H_3: Members of NPHC and MGC chapters will report a stronger sense of cultural appreciation than members of IFC or Panhellenic organizations, regardless of facility type.

Significance of the Study

The results of this study can be informative for university officials who are trying to determine the value of sorority/fraternity facilities, specifically by type of facility. If a particular facility type is deemed to increase a student's sense of belonging, academic success, satisfaction with the chapter and the institution, an institution may make the case for additional facilities of that type to be constructed on campus. If a particular facility type is deemed cost-prohibitive for the members, campuses may decide against constructing such facilities for fear it may eliminate otherwise interested students from participating. Additionally, the study will provide information to student affairs practitioners and national Greek organizations about new initiatives that could be developed to strengthen the student experience for those without chapter facilities.

Chapter Summary

This dissertation explored member experiences of those with and without chapter facilities. Chapter One includes an introduction of the research topic, a statement of the problem and purpose of the study, research questions being examined, and an overview of the methodology. Chapter Two presents a review of the literature relevant to the topics, concepts, and framework used in this study. The methodology is described in Chapter Three and is comprised of an overview of the instrument, variables, sampling techniques, data collection, and analysis procedures. Chapter Four provides the results of the study. Finally, in Chapter Five, the results and implications are discussed.

Chapter 2. LITERATURE REVIEW

Introduction

The connection between sorority and fraternity membership and student success has been the subject of debate amongst researchers and the public (Bowman & Holmes, 2017). While Routon and Walker (2014) noted the negative outcomes of sorority and fraternity affiliation, others (Debard & Sacks, 2010; Walker, et al., 2015) found evidence of the positive influence these social organizations can play in the lives of students. In evaluating sorority/fraternity outcomes, it is important to recognize that exclusionary membership is often limited to individuals possessing some form of privilege (Garcia & Shirley, 2019; Ray, 2013; Syrett, 2009). Therefore, these individuals may already be more inclined to excel in traditional success measures.

Central to the sorority/fraternity experience on some campuses is a residential facility, where members live, meet, and dine. Some research on sorority and fraternity residential facilities helped identify the role of the residential environment in a student's learning, alcohol use, and socialization (Blackburn & Janosik, 2009; Gibson, Matto, & Keul, 2017; Vetter, 2011). However, there is little research on the value of those facilities by type and the connection between those facilities and the outcomes of students living in and utilizing those spaces (Biddix, et al., 2014). This chapter summarizes the literature on sororities and fraternities, chapter facilities, and outcomes associated with each.

Researchers have found that students who establish connections to their institution through student involvement and engagement are more likely to persist and graduate (Braxton, et al., 2013; Strayhorn, 2012). Central to student involvement is the feeling of belonging or "social support, a feeling or sensation of connectedness, the experience of

mattering or feeling cared about, accepted, respected, valued by, and important to a group (e.g. campus community) or others on campus (e.g., faculty, peers)" (Strayhorn, 2012, p. 3). The relationship between a student and their peers is further explained by Astin (1993), who concluded, "the student's peer group is the single most potent source of influence on growth and development during the undergraduate years" (p. 398). Through peer interaction and engagement, sororities and fraternities can enhance a student's sense of community and learning (Long, 2012a.; Walker, et al., 2015).

Also contributing to student learning is the physical environment, where the design of the living or learning space can encourage student engagement through a common experience (Gratto, Gratto, Henry, & Miller, 2002; Heeren & Romsa, 2017). Specifically, college residential facilities are known to improve a student's sense of community and feeling of belonging (Bronkema & Bowman, 2017; Pokorny, Holley, & Kane, 2016). In sorority and fraternity communities, residential facilities provide chapters a place to gather, meet, and socialize (Gibson, et al., 2017). Moreover, while sorority/fraternity housing can play a positive role in their member's experiences, research also shows that non-residential buildings and other campus spaces can be beneficial in creating a sense of community for students (Montgomery & Miller, 2011). Because belonging comes with a cost (McClure & Ryder, 2018) and traditional Greek housing is seen as a sign of privilege reserved for historically White fraternities and sororities (Ray & Rosow, 2012; Ray, 2013), these spaces should be reexamined to determine their value.

As colleges aim to ensure students grow academically and personally, institutions also seek to prepare students for citizenship and social responsibility (Chickering, 2010).

Sororities and fraternities encourage student development through accountability, civic engagement and values attainment (Tull, Shaw, & Barker, 2018). Outcomes of membership in fraternities and sororities are also linked to individuals' sense of self, collaboration, and personal responsibility (Hevel, et al., 2018).

When studying the developmental experiences of students in fraternities and sororities, the environmental context (Barber, et al., 2015) and a student's "feeling…of connectedness" (Strayhorn, 2019, p. 3) should be considered as factors that influence a student's success. Bronfenbrenner's ecological systems model (1979, 1997) and Strayhorn's (2012) work on student sense of belonging illustrate how a student's environment and the relationships within and outside of the organization contribute to their overall experience. In Bronfenbrenner's model (1979), the microsystem encompasses a person's interaction with immediate surroundings and interpersonal relationship(s) with one or more individuals. In the college setting, a student's relationship with peers or a club/organization is reflected in the microsystem. In a sorority/fraternity chapter facility where members reside and dine together, the interactions between an individual and other members and with those external to the organization (or facility) can be affected. It is the microsystem where we see the intersection of Bronfenbrenner's (1979) and Strayhorn's (2012, 2019) work as a student's sense of belonging can be a function of perceived support from peers. Strayhorn (2019) also emphasized the positive influence of socialization with peers with different backgrounds from one's own. If a sorority/fraternity member's interactions with those outside of the organization is limited, the member's sense of belonging may be negatively affected.

To better understand the relationship between sorority and fraternity facilities and student outcomes, this chapter provides an overview of the research literature related to these topics. Specifically outlined in this chapter is a history of sororities and fraternities and outcomes of students involved in those organizations. Also discussed is the research on campus facilities, the sorority/fraternity experience, and the theoretical framework guiding this study.

History of Fraternities and Sororities

College fraternities originated as literary societies where the primary activities centered on debates, discussions, and other opportunities to strengthen writing and speaking skills (Torbenson & Parks, 2009). Cohen and Kisker (2010) noted that the original Greek-letter organizations operated in response to an institution's prescribed curriculum, which was often seen as strict and rigid. As the societies fulfilled a social role outside of the classroom, they competed for members, sought out student leadership positions, and used secret initiation rituals, handshakes, and logos to differentiate from one another (Brown, Parks, & Phillips, 2012). Founded at William and Mary College, Phi Beta Kappa was the first Greek-lettered organization (Brown, et al., 2012). By 1780, Phi Beta Kappa had expanded to more than 20 college chapters with the mother chapter granting charters at each of the subsequent institutions. By the late 1820's, additional Phi Beta Kappa chapters were formed at institutions along the east coast (Torbenson & Parks, 2009).

Women's fraternities were first established at co-educational institutions where women, who were in the minority, "organized to unite their small numbers and give them a stronger position in campus activities" (Torbenson & Parks, 2009, p. 22). In the early

years, a few organizations opened their membership to women to provide food for the male members, decorate the organization room/facility, and offer their homes as a meeting location (Brown, et al., 2012). By 1852, secret literary societies at Wesleyan College formed as local organizations that later became Alpha Delta Pi and Phi Mu (Torbenson & Parks, 2009). Pi Beta Phi was the first national women's fraternity in 1867 at Monmouth College (Johnson, 1972). Gamma Phi Beta, initially a literary society became the first "sorority" in 1882 when a professor at Syracuse University proposed use the Latin term *sororitas*, meaning sisterhood (Johnson, 1972).

Membership of the early Greek-lettered organizations mirrored that of higher education at the time – White Protestant males from wealthy families. Between 1895 and 1925, new fraternities were formed in support of men from other religious backgrounds - Catholics, Mormons and Lutherans (Torbenson & Parks, 2009). Jewish fraternities and sororities formed between 1900 and 1909, largely in New York where the Jewish student population was larger than in other states (Torbenson & Parks, 2009). Other fraternities, Rho Psi (1916) and Sigma Iota (1904) supported Chinese and Latinx students, respectively (Torbenson & Parks, 2009).

As an answer to racist policies that prevented People of Color from attending other colleges and universities, Black colleges were established in the mid 1800's (Gillon, Beatty, & Salinas, 2019). However, the first collegiate Black fraternity was formed at Cornell in 1906 – a predominantly White, all-male institution at the time (Kimbrough, 2003). Alpha Phi Alpha, Inc. met at an off-campus location and was formed to "address the toxic social relations of segregation and isolation by the modern academy" (Torbenson & Parks, 2009, p. 58). While Alpha Phi Alpha was the first

collegiate Black fraternity, the first Black Greek-lettered organization was actually formed by physicians and dentists in Philadelphia, PA in 1904 (Kimbrough, 2003). Sigma Pi Phi only admitted elite business professionals who were college graduates (Kimbrough, 2003). Between 1908 and 1920, five of the nine Black collegiate fraternities and sororities later known as the National Pan-Hellenic Council were founded at Howard University (Kimbrough, 2003). Because Howard was "very strict and disciplined, the formation of fraternities and sororities also represented a means for student expression and escape" (Kimbrough, 2003, p. 32). Today, some reference students in Black Greek-lettered organizations as being in the top 10 per cent of the Black community – educated, upper-class students assisting their peers in gaining socio-economic parity (Hughey & Parks, 2011).

By 1975, desegregation orders forced institutions to diversify and a new wave of growth occurred in the sorority/fraternity community (Torbenson & Parks, 2009). Between 1975 and 1999, there was significant growth in the number of social organizations for Latinx, Asian American, and Native American students (Torbenson & Parks, 2009). The primary goal of each of these organizations was to create a brotherhood or sisterhood based on a common cultural background (Brown, et al., 2012; Torbenson & Parks, 2009). Beta Sigma Tau, in 1948 became one of the first intercultural/interracial fraternities, promising to be a fraternity with no discriminatory barriers (Torbenson & Parks, 2009). Approximately thirty multicultural fraternities and sororities formed between 2002 and 2007 with their primary purpose being to promote diversity and multiculturalism (Torbenson & Parks, 2009).

Today, there are multiple national umbrella organizations representing national sororities and fraternities. The North-American Interfraternity Conference (NIC), represents as many as seventy-five all-male fraternities and was founded in 1909 (Torbenson & Parks, 2009). The National Association of Latino Fraternal Organizations, Inc. (NALFO) was formed in 1997 to serve as an umbrella organization for Latino fraternities and sororities (Torbenson & Parks, 2009). Founded in 1902, the National Panhellenic Conference (NPC), represents twenty-six national Greek lettered sororities and women's fraternities (Axelrod, 1998). The National Pan-Hellenic Council (NPHC), formed in 1930, represents the nine largest and most established Black Greek lettered organizations (Kimbrough, 2003). The National Asian Pacific Islander American Panhellenic Association (NAPA) representing Asian Pacific American fraternities and sororities was formed in 2004 (Torbenson & Parks, 2009). The National Multicultural Greek Council (NMGC) formed in 1998 as an umbrella organization for eleven multicultural fraternities and sororities (Kimbrough 2003).

Outcomes of Sorority and Fraternity Membership

College sororities and fraternities can provide positive benefits to its members. O'Brien, McNamara, McCoy, Sutfin, Wolfson, and Rhodes (2012) found sororities and fraternities to offer social activities and friendship, career networking, academic development, leadership skill building, and community outreach. Specific to community outreach, the National Panhellenic Conference (2016) reported that in 2014-2015, "$34,880,415 was raised for philanthropic causes by collegiate and alumnae members…, and 2,958,395 hours volunteered in support of nonprofit organizations" (p. 13).

Researchers have shown a link between sorority/fraternity involvement and personal development. Long (2012b) determined that "the sorority/fraternity experience was excellent at producing gains in sense of belonging and peer interaction, and good at developing respondents' study skills, critical thinking, commitment to service, management skills, and career skills" (p. 21). Long (2012b) used data from the Fraternity/Sorority Assessment, reviewing results from 9,380 college students from 15 institutions. Though the research revealed the respondents' commitment to scholarship, service, friendship, and leadership improved during their time as members, a limitation of the study was that the participants were primarily White/Caucasian (Long, 2012b).

Sororities and fraternities also provide the structure for developing and strengthening personal and shared values (Schutts & Shelley, 2014; Tull & Cavins-Tull, 2018). Tull and Shaw (2017) conducted a study on common fraternity values of 76 organizations. These included scholarship, service, responsibility, excellence, leadership, and brotherhood (Tull & Shaw, 2017). In a similar review of the 26 organizations in the National Panhellenic Conference, service, friendship, scholarship, loyalty (to school and sorority), sisterhood, philanthropy, and leadership emerged as common themes (Tull, Shaw, & Barker, 2018). Research on NPHC organizations revealed six common values for the men's groups: brotherhood, leadership, service, scholarship, manhood, and citizenship (Tull, Shaw, Barker, & Sandoval, 2018). In the same study, Tull, Shaw, Barker & Sandoval (2018) found that the majority of NPHC sororities shared charity, friendship, honesty, integrity, respect, service, sisterhood, unity, and womanhood as common values. Shared values amongst multicultural sororities in the National Multicultural Greek Council (NMGC) and the National Association of Latino Fraternal

Organizations (NALFO) were integrity, multiculturalism, advancement, leadership, sisterhood, unity, and community service (National Multicultural Greek Council [NMGC], 2018; Tull, Shaw, Barker & Sandoval, 2018). Similarly, common values amongst the NMGC and NALFO fraternities were academic excellence, cultural awareness, personal growth, friendship, and service (NMGC, 2018; Tull, Shaw, Barker & Sandoval, 2018). While stated values project the ideals of the organization, the desired outcome is that members live out those values.

Race/Ethnicity

In literature on the sorority/fraternity experience, little comparative research identifies differences among Students of Color and their White peers within the same study (Biddix, et al., 2014). However, one study explored the effect of Greek affiliation on the student engagement of African American students (Patton, Bridges, & Flowers, 2011). Patton, et al. (2011) obtained data from the National Survey of Student Engagement (NSSE) to compare NPHC students at Historically Black Colleges and Universities (HBCU) to those at Predominately White Institutions (PWIs). Of the 9,539 African American students in the data set, 6,543 attended PWIs and 2,996 attended HBCUs (Patton, et al., 2011). On the active and collaborative learning and the student-faculty interaction scales, NPHC students at HBCUs had higher engagement scores than those at PWIs. The researchers recommended higher educational professionals, particularly those at PWIs work with NPHC organizations to develop specific programs and initiatives to promote further engagement with faculty (Patton, et al., 2011).

Cultural Heritage

Many culturally-based sororities and fraternities were founded out of growing demand to meet the needs of women and men who felt marginalized on campus, particularly at PWIs (Torbenson & Parks, 2009; Tull, Shaw, Barker, & Sandoval, 2018). To create a positive climate for minoritized students, culturally-based sororities and fraternities sought to develop a culture in which their members would be highlighted and highly valued (NMGC, 2018). The importance of inclusivity in all groups within the sorority/fraternity community is further emphasized in the Council for the Advancement of Standards in Higher Education (CAS) Standards. Specifically, in the Standards for Fraternity and Sorority Advising, authors recommend a practice that "fosters communication and practices that enhance understanding of identity, culture, self-expression, and heritage; and promotes respect for commonalities and differences among people within their historical and cultural contexts" (CAS, 2015, p. 25).

Culturally-based sororities and fraternities can create a sense of belonging and connectedness with others of similar cultural backgrounds (Garcia, 2019). Guardia and Evans (2008) found students involved in a Latino-based fraternity to have an increased sense of cultural identity after joining the group. One student noted that his fellow members of the Latino fraternity helped him explore their Latino heritage at a deeper level (Guardia & Evans, 2008). Similar findings were reported in a study on Asian American fraternities (Tran & Chang, 2013). The men lived together in a fraternity house and compared that setting to the multigenerational tradition of Asians and Asian Americans living under the same roof (Tran & Chang, 2013). Through this residential structure, the older brothers were able to share important knowledge, traditions, and

values about the Asian culture with the younger members of the group (Tran & Chang, 2013).

Academic Achievement

Academic achievement is a stated goal in sorority and fraternity mission statements (Debard & Sacks, 2010). However, how does this correlate to the academic outcomes of sorority and fraternity members? In a 2011 study, Debard and Sacks found that students who are members of fraternities and sororities often have higher grades than their non-affiliated peers. In Walker, et al.'s (2015) study of students at a selective, private institution found that 99% of students in sororities and fraternities earned a degree within five years and had higher GPA's than their non-affiliated peers. Walker, et al. (2015) further asserted the results of their survey "should not be generalized beyond other highly selective colleges and universities" (p. 218).

To assess academic achievement among Black women in Pan-Hellenic sororities, Chambers and Walpole (2017) reviewed GPA data from 193 sororities and fraternities at 33 flagship institutions in the U.S. The data included 1593 chapters from the Interfraternity Council, National Panhellenic Conference, Multicultural Greek Council, and National Pan-Hellenic Council (Chambers & Walpole, 2017). From the sample, 622 were sororities, 64 of which were NPHC sororities (Chambers & Walpole, 2017). The NPHC mean sorority Grade Point Average (GPA) was 2.82 while the NPC mean was 3.21. However, there was no significant difference between the average GPAs of NPHC sororities and fraternities (Chambers & Walpole, 2017). A limitation of the study was that these data were compared within the Greek community as opposed to the Black student community at large. These data and additional research can inform higher

education professionals of specific strategies needed to improve academic achievement for Black sorority women.

Researchers also found a positive relationship between sorority and fraternity membership and college graduation. Routon and Walker (2014) found that sorority and fraternity members are more likely to graduate on time, have a higher level of graduate school aspirations, and an increased likelihood of beginning careers immediately after graduation. Yates (2018) studied student involvement and graduation rates, specifically at institutions with a newly added Greek system. The researcher compared institutions that had recently added a Greek system to those with no Greek system, and those with well-established Greek systems (Yates, 2018). Students at institutions with new Greek systems had significantly higher graduation rates than students at institutions without Greek organizations (Yates, 2018). This aligns with Walker, et al.'s (2015) finding that students in sororities and fraternities are more likely to graduate than their non-affiliated peers.

Gallup (2014) data also provides insight on the effect of sorority/fraternity involvement on post-graduate career success. Based on information from more than 30,000 college graduates, those involved in sororities and fraternities as undergraduates were more intellectually and emotionally connected to their work than their non-affiliated peers (Gallup, 2014). Specifically, alumni from sororities and fraternities reported a greater commitment to their alma mater and felt more prepared for a career than their non-affiliated peers (Gallup, 2014).

Negative Outcomes of the Sorority/Fraternity Experience

While the effects of sorority and fraternity membership can be positive, headlines over the years brought attention to racist, sexist and homophobic incidents as well as

hazing, alcohol consumption, drug use, and binge drinking (Barone, 2014; Clay, 2018; Collins & Liu, 2014; DeSantis, Noar, & Webb, 2010; O'Brien et al., 2012; Spencer, 2018). Collins and Liu (2014) found sorority and fraternity students were more likely to engage in violent behavior and substance abuse. Conflicting research around academic outcomes has shown the negative effect of fraternity involvement on members' grades. Bowman and Holmes, (2017) found that students who participated in fraternities had lower grades during their first year of college than non-affiliated peers. Studies on the cultural competency of sorority/fraternity members indicate they are less open to diversity and appreciation of people from different backgrounds (Pascarella & Terenzini, 2005). Similarly, sorority/fraternity students are not as likely to have peer interactions with those of a different race and, compared to non-affiliate peers, are less tolerant of different viewpoints (Walker, et al., 2015).

Exclusion and Racism

Discrimination is a known characteristic of sorority/fraternity membership. In the early 1900's, fraternities incorporated codes of exclusion into their constitutions to limit membership to "white, Christian males" (Syrett, 2009, p. 172). As an example, Sigma Nu, a historically White fraternity had a discrimination clause against "Negroes" and "Orientals" (Torbenson & Parks, 2009). When a chapter requested elimination of the "Oriental" clause at the 1954 convention, the request was denied because members expressed fear that admission of an "Oriental" might tarnish their campus prestige (Torbenson & Parks, 2009). Exclusion at the University of Alabama made headlines in 2013 when two black women failed to receive bids from Panhellenic organizations

(Barone, 2014). These and other examples represent a pattern of racism in historically white sororities and fraternities.

Wealth and privilege is often associated with sorority and fraternity membership. During the nineteenth and twentieth centuries, the members of Greek-letter organizations consisted of wealthy and socially connected students (Walker et al., 2015). Stevens, Armstrong, & Arum, (2008) stated that, ‘‘fraternity and sorority recruitment is perhaps the most formalized and explicit version of social evaluation and exclusion on campuses’’ (p. 133). Students involved in today’s sororities and fraternities are more likely to be White upper or middle class students (Martin, Hevel, & Pascarella, 2012).

The historical exclusion within sorority and fraternity life extended to organizations’ residential opportunities as well. Discrimination was evident for an Asian American sorority that attempted to secure a house on the UCLA campus. Chi Alpha Delta was offered the opportunity to purchase a building in 1938 (Torbenson & Parks, 2009). The owner of the building refused to sell to “Orientals” but by the time the restricted guidelines were forbidden, the housing prices were cost-prohibitive to the organization (Torbenson & Parks, 2009).

Ray and Rosow (2010) found a “historical legacy of racial discrimination, both within and external to the university, that has traditionally precluded Black fraternities and sororities from gaining equal access to economic resources such as Greek houses and large alumni endowments” (p. 526). Ray (2013) further described racial separation in his ethnographic study of fifty-two men in three White and four Black fraternities at a Predominantly White Institution (PWI), where, for White fraternities, the house symbolized exclusivity, privilege, status, and power. As Black fraternity men often utilize

university venues for programming, social events, and meetings, they encounter university administrators more regularly and are "surveilled more than White fraternity men with houses" (Ray & Rosow, 2012, p. 71).

Bias and exclusion are common among culturally-based organizations as well. Black students "are labeled as 'sellouts' for joining White fraternities" (Kimbrough, 2003, p. 181). In Black Greek organizations, some will consider appearance as a condition of membership (Tindall, Hernandez, & Hughey, 2011). Specifically, "…Stereotypes based on colorism or discrimination based on skin color and elitism might operate as unofficial symbols and signs for historically Black sororities" (Tindall, et al., 2011, p. 36). Bryant (2013) interviewed 18 African-American women and men between ages 24-42 who initially joined NPHC organizations as undergraduate students. One noted the continued prevalence of colorism with chapters being referred to as "the light versus the dark, the house slave, and the field slave" (Bryant, 2013, p. 101). For context, participants in this study associated light skin with intelligence, politeness, and poise whereas darker skin was associated with loudness, unruliness, and wild behavior (Bryant, 2013). One participant stated this about her graduate chapter, "I see skin tone bias. It's amazing to me to hear someone older than you say that someone would not fit in with the organization because of their skin tone" (Bryant, 2013, p. 107).

Sorority and Fraternity Housing Facilities

History

Greek organization housing can be traced back to the Masons (Axelrod, 1998). In the fourteenth century, Freemasonry was organized by skilled laborers who constructed bridges, palaces, and cathedrals. To create a place of shelter and a location for meetings,

the Masons established lodges (Axelrod, 1998). Here, only those who used secret handshakes and passwords were allowed to enter (Axelrod, 1998). Several fraternities founded by Masons (Acadia, Beta Theta Pi, Kappa Alpha Order and Chi Psi) continue to refer to their chapter houses as "lodges" – a reference to the original facilities of the Mason organization (Kimbrough, 2003). Lodges had their place amongst the Black community as well. However, like the origins of Black and multicultural social organizations, the opportunity arose because Black Masons felt their needs were unmet in the traditionally White masonic organizations (Kimbrough, 2003). In 1787, Black Masons in England formed their own lodge after experiencing racism as members of the historically White lodge (Axelrod, 1998).

The original fraternity lodges were located above stores and were rented for organization meetings and gatherings (Axelrod, 1998). Though some organizations rented off campus housing, Nicholas Syrett (2009) noted that on campus fraternity houses originated to fulfill a need to provide living space for students. At the University of California, Berkeley, one of the first official fraternity houses was built in 1876, allowing the institution to enroll more students without paying the cost of housing (Syrett, 2009). By 1920, Syrett (2009) found that as many as 774 such houses existed for sororities and fraternities. Housing type and scope varied by campus as some were funded by alumni, some rented, and others built on land that was leased by the institution (Syrett, 2009).

As we look at the history of sorority and fraternity housing, it is also important to understand the exclusive nature of the organizations and their associated facilities at the time. In the late 1800's, fraternities started building large residential houses because of "dissatisfaction with the ramshackle boardinghouses" occupied by other students (Yanni,

2019, p. 59). These mansion-like facilities had servants – cooks and housekeepers who, though grown adults were beholden to the young White college men who occupied the fraternity house (Yanni, 2019). Fraternities competed for members by constructing grand houses to show the "fraternity's wealth and a demonstration of the brothers' contributions to the college and the town in which they lived" (Yanni, 2019, p. 62).

Modern-Day Sorority and Fraternity Facilities

Today, chapter facilities include large houses with residential and dining facilities, college residence halls areas, and campus meeting rooms (Morettes, 2010). Gratto, et al. (2002) highlighted a village-style housing project for sorority/fraternity chapters. At the University of South Florida, the Greek Community Project was designed to create a sense of community for sorority and fraternity organizations, allowing groups some independence in design of chapter rooms while encouraging a connection to the larger university community (Gratto, et al., 2002).

The villas, described by Gratto et al. (2002) included two units per building with each chapter sharing an internal wall with another chapter. Each unit included 20-28 beds on two or three floors. Some chapters had community rooms that are either attached to the building or added as a stand-alone building. Since the basic floor plans were the same throughout the community, organizations were allowed to "compete on more healthy terms, such as the quality and extent of community service, engagement in student life, and leadership positions, intramural sports, and so forth" (Gratto et al., 2002, p. 30). Pathways from the complex lead in one direction, allowing students living in the community to walk to and from their residential facility towards the academic buildings.

This was designed to encourage students from different organizations to walk together, solidifying a common connection rather than a differential, competitive one (Gratto, et al., 2002).

Campus Facilities: Role in a Student's Experience

The physical environment on a college campus has the potential to affect a student's sense of community, whether through academic buildings, residence halls, or outdoor spaces (Rullman, & van den Kieboom, 2012). Campus architecture, roads, and landscapes illustrate an institution's values and priorities (Coulson, Roberts & Taylor, 2015a.). Rullman and Harrington (2014) noted the role a campus facility can play in a student's sense of belonging. Specifically, college unions play host to events, activities and social spaces designed to create a sense of community (National Association of Student Personnel Administrators [NASPA], 2010). Institutions have the ability to promote learning when the conditions "for students' inclusion, safety, engagement, and full membership" are in place (Strange & Banning, 2015, p. 272). And while the design of campus facilities can help students become more engaged, (Strange & Banning, 2015), it is the relationships, feelings, and interactions within the space that create community (Johnson & Glover, 2013). Ideally, the physical environment on a college campus portrays a welcoming setting where students feel engaged and comfortable (Gratto, et al., 2002).

With physical facilities, architects strive to create buildings that serve as a meaningful place using cultural and aesthetic qualities to shape user's experiences (Manzo & Devine-Wright, 2014). The idea of place is considered a contributing factor in the student learning experience in a higher education environment (Coulson, Roberts, &

Taylor, 2015b.). However, the experience itself is what economists and higher education professionals seek to promote. *Experience economy* often referenced in tourism, entertainment, and retail industries focuses on customers as co-producers of the engagement experience (Pine & Gilmore, 2013). Here, companies such as LEGO, Apple, and Starbucks market the experience to create demand (Pine & Gilmore, 2013). This concept is sometimes reflected in facility design at higher education institutions.

While a physical facility can serve as a place of learning on a college campus, today's higher education institutions are "reorienting facilities design away from being backdrops for staid teaching and research" (McLane & Kozinets, 2019, p. 79) to one that offers students the opportunity for personally meaningful engagement. By encouraging students to "engage actively in their own educational journeys" (McLane & Kozinets, 2019, p. 79), universities can develop environments that promote community and stronger affiliation to the institution.

Strange and Banning (2015) also emphasized the role students play in shaping their environmental learning experience, characterized as the "ecology of learning" (p. 272). This concept is defined by Strange and Banning as "a state of dynamic balance when student characteristics synergize with institutional features (physical, aggregate, organizational, and socially constructed) in support of the outcomes of learning" (p. 272). Students find success in educational environments when they include three conditions: security and inclusion, opportunities for involvement, and a sense of community (Strange & Banning, 2015). By understanding how learning environments affect student recruiting and retention, campus administrators are better positioned to maximize these spaces as a venue for student engagement.

The Concept of *Place*

Conceptually, physical *place* is more than a mere physical area, or space. *Place*, as defined by David Seamon (2014) is a "locus in and through which individual or group actions, experiences, intensions, and meanings are drawn together spatially" (p. 11). In a place that successfully draws people together, individuals make "involuntary emotional connections – or *place attachment*" (McLane & Kozinets, 2019), leading to areas that are meaningful, satisfying, and frequently visited. Researchers of place attachment theories reference two primary characteristics as central to the concept: social and physical (Lewicka, 2011). Here, the emphasis is on place as a social construct, which is more meaningful than the physical or geographic location (Lewicka, 2011; Seamon, 2014).

McLane and Kozinets (2019) utilized the phenomenological framework of place attachment to understand the influence of student life centers on students' sense of belonging and community identification. Using Seamon's (2012, 2014) six processes of place attachment (place interaction, place identity, place release, please realization, place creation, and place intensification), McLane and Kozinets (2019) analyzed student life buildings at two universities. They conducted field observations and interviews of sixteen students from the two campuses (McLane & Kozinets, 2019). Results suggest design and use of space help shape a student's "physical, emotional, and intellectual individual and social experiences" (McLane & Kozinets, 2019, p. 92). In summary, when spaces are clean, safe, and designed to promote social interaction, there is an increased likelihood of developmentally meaningful experiences amongst its users (McLane & Kozinets, 2019).

The Third Place

Through informal interactions, *third places* play host to engaging conversations, and influence well-being and personal satisfaction (Campbell, 2017). Sociologist Ray Oldenburg (1989) developed the concept of the "third place," as an informal place between home (first place) and work (second place). Houses, Oldenburg (1999) noted, do not make a community, even if well-furnished, well-equipped, and well-designed. Conversely, third places are breeding grounds for social connectedness where someone "may go alone at almost any time of the day or evening with assurances that acquaintances will be there" (Oldenburg, 1989, p. 32). On college campuses, examples of third places include coffee shops, bookstores, outdoor courtyards, and other hangout spots that "host the regular, voluntary, informal, and happily anticipated gatherings of individuals" (Oldenburg, 1989, p. 14). As institutions plan and design campus facilities, it is important to recognize the value of third places as less formal locations for encouraging companionship and emotional support.

Montgomery and Miller (2011) argue a campus library, as a location for collaborative learning and community interaction meets the criteria of a third place. While a library is traditionally known as being a storehouse of collections, Montgomery and Miller (2011) note the campus library can provide users the "chance to be around others where they are not restricted by time, nor are they compelled to be there" (p. 232). Williams (2018) also referenced the third place as an element of retention, particularly for HBCUs. At the Morehouse School of Medicine, Williams (2018) created a pavilion to connect two academic buildings with the goal of allowing students to connect with each other and with faculty. Serving primarily as an informal gathering space, the pavilion

includes meeting rooms, a rooftop terrace, natural light, and a glass façade (Williams, 2018).

Banning, Clemons, McKelfresh, and Gibbs (2010) explored college student perceptions of third spaces and restorative spaces. Restorative environments are described as places where individuals recuperate, relax, and rest (Kaplan, Kaplan, & Ryan, 1998). Through an ethnographic study, researchers asked 91 students to identify and describe their third place and 67 students to identify and describe their restorative spaces. While students saw restorative places as areas to reduce stress and relax, third place environments were recognized as important places to focus on "social interaction – socializing/conversing, eating and drinking, reading and studying" (Banning et al, 2010, p. 6). Harrington (2014) explored the effect of campus space on student engagement and involvement. Through reflexive photography, journals, and interviews, nine students were asked to identify the role of the campus physical environment in building community, student involvement, ability to meet and interact with peers, student safety, and inclusion and diversity (Harrington, 2014). In the formal and informal student involvement spaces, students noted the opportunity to plan organizational activities in a setting that resulted in "engagement, academic persistence, and additional leadership development opportunities" (Harrington, 2014, p. 58). Additionally, students cited outdoor green spaces, the Student Union, the Learning Commons, the community room in the freshman residence hall, and a fraternity house as important places to connect and have meaningful conversations with peers (Harrington, 2014).

Influence of Residential Communities: Sorority, Fraternity, and Non-Greek

The significance of place underscores scholarship on the role of residential environments in student experiences. While this study measured the experiences of sorority/fraternity members and the chapter facilities in which they lived, met, and dined, research on general housing facilities provided a useful framework for understanding student outcomes in any residential context. Specifically, on-campus housing promotes opportunities for social engagement between peers. Pascarella and Terenzini (2005) found consistent evidence that on-campus students are more likely to be retained and graduate than other students who commuted to and from campus. Turley and Wodtke (2010) made similar conclusions on the effect of residence on achievement, specifically for Black students living on campus. At liberal arts colleges, in particular, Black residential students maintained higher GPAs than those living with family off campus (Turley & Wodtke, 2010).

Commuter versus Residential Outcomes

Distance from campus also matters when determining the relationship between off-campus living and student engagement. Graham, Hurtado, and Gonyea (2018) compared residential students with those living within walking distance off-campus and within driving distance off-campus. Utilizing four years of data from the National Survey of Student Engagement (NSSE), researchers evaluated 94,577 first year student responses from 576 U.S. institutions (Graham, et al., 2018). Of the respondents, 60.3% lived on campus, 9.3% lived within walking distance off campus, and 30.4% lived father than walking distance. None of the students surveyed lived in sorority/fraternity housing (Graham, et al., 2018). On-campus residents showed significantly higher levels of engagement in collaborative learning, interactions with faculty and communications with

diverse students than those living off-campus – particularly those living farther than walking distance. However, the differences between on and off campus students in reported quality of interactions, perceived co-curricular gains, and time spent preparing for class were not significant (Graham, et al., 2018).

Residence Halls: Social Integration, Living-Learning Communities, and Facility Design

Faculty and peer interactions are essential elements of a student's successful integration into an academic community (Sidelinger, Frisby, & Heisler, 2016). Sense of belonging, as a psychological dimension of integration is particularly important in the experiences of marginalized students (Hurtado, Ruiz Alvarado, & Guillermo-Wann, 2015; Strayhorn, 2012). To assess belonging of residence hall students, Spanierman, Soble, Mayfield, Neville, Aber, Khuri, & De La Rosa (2013) utilized a mixed methods approach, collecting data from 344 students at a large Midwestern public university. Half of the participants resided in a living-learning community (LLC) and the other half did not. Through surveys at the beginning and end of fall semester, researchers measured belonging to residence and to institution, assessing by gender, race, and residence hall type (Spanierman, et.al. 2013). In both surveys, LLC students reported a higher sense of belonging in residence than non-LLC students (Spanierman, et al., 2013). Additionally, students living in the STEM Women LLC felt more socially and academically supported than non-LLC peers, noting opportunity for collegiality amongst women as important in their male-dominated career field (Spanierman, et al., 2013). There were no significant differences in sense of belonging to the institution for either group; however, White students reported a higher sense of belonging to institution than Black and Latino

students (Spanierman, et al., 2013). Students of Color reported higher levels of belonging when they perceived their residence hall environment as socially supportive of diversity (Spanierman, et al., 2013). These results emphasize the importance of providing positive diversity experiences and study opportunities in a residential setting.

Also essential to a student's social integration is the degree to which they feel connected to their peers (Henninger, William, Eshbaugh, Osbeck, & Madigan, 2016). Researchers used the UCLA Loneliness Scale to determine the relationship between self-reported loneliness and social support, roommate status, gender, and year in college. Four hundred ninety-five students from three residence halls at a mid-sized Midwestern university were mailed a questionnaire. Of those surveyed, 317 (64%) responded (Henninger, et al., 2016). Students living with roommates reported a higher level of social support from friends and family and were less lonely than those living by themselves (Henninger, et al., 2016). Additionally, Henninger, et.al. (2016) also found that students with a higher academic classification (seniors) were lonelier than others and men were lonelier than women. Finally, students who reported more support from friends and significant others were less lonely than those without that support; however, students with more support from family reported feeling significantly more lonely than those without family support (Henninger, et al., 2016). Through these findings and other studies on social environments (Chao, 2012) and dropout rates/morale in residential environments (Zawadzki, Graham, & Gerin, 2013), higher education professionals should promote programs and initiatives to encourage community engagement.

The physical design of residential facilities can influence a student's experience (Bronkema & Bowman, 2017; Graham, et al., 2018). While the architectural layout does

not guarantee interaction, physical barriers can deter or improve opportunities for engagement (Brown, et al., 2019). Facility design has also been studied by researchers assessing homophily – wherein individuals form friendships with persons like themselves (Brown, et al., 2019). This phenomenon is illustrated in typical neighborhoods, where people often live with others of similar racial, cultural, and ethnic backgrounds (Owens, 2010). Brown, et al., (2019) studied the interactions of students according to residential hall type at a PWI. Students who live in structures where the design promotes social interaction (long, open corridors; shared rooms) had higher grades than those in isolating structures (private bedrooms; apartment-style units) (Brown, et al., 2019). Further, Black students benefitted from living with or near other Black students in structures that promoted social interaction (Brown, et al., 2019). These findings underscore the potential benefits of shared living arrangements, particularly for Students of Color.

Sorority/Fraternity Facilities: Outcomes, Satisfaction, Learning, Social Integration

The behavior of students in sorority/fraternity facilities is associated with the persistence, retention and quality of the educational experience for those who live, dine, or meet together as a chapter (Morettes, 2010.) As stated by Chickering and Reisser (1993),

> A residence hall or Greek house has the most impact when it [through influence of friends] becomes an effective – and affective – subculture or reference group for its members. Like a new floor plan, the values and behavioral norms of an adopted group become the background for the individual's personal actions and attitudes. When students themselves form the community, shared standards and rules for conduct are not as likely to be seen as arbitrary or coercive. It is ironic

> that the group may demand more obedience than a parent would. It may even reinforce self-defeating behavior, but since we tend to defend what we identify with, those sub-cultural tyrannies may not be questioned. (p. 393)

In an environment where the members of a sub-culture reside together, student self-governance naturally occurs and may positively or negatively influence the educational outcomes of its participants.

Campus residential environments can provide opportunities for social integration for the sorority women who live in these facilities (Wessel and Salisbury, 2017). In addition to Tinto's (1993) work on social and academic integration, Wessel and Salisbury (2017) also studied the role of women in building consensus, and facilitating decision-making processes. Researchers utilized qualitative phenomenological methodology to assess the lived experiences of seven White women (sophomore and older) who were members of a sorority living in a campus residence hall but not necessarily together (Wessel & Salisbury, 2017). Using semi-structured interviews, Wessel and Salisbury (2017) asked questions related to their residential experience and their sorority experience, and a comparison the two. Participants noted the proximity of the hall to campus resources, positive experience with the Resident Advisor, and attendance at hall events as factors in creating sense of community and connectedness to the campus (Wessel & Salisbury, 2017). While living in on-campus housing provided the women their initial assimilation to campus, sorority membership provided a "deeper integration experience" (Wessel & Salisbury, 2017), allowing them to develop stronger connections with their sorority sisters.

Research on student involvement in sororities and fraternities indicates that living in chapter housing can have a positive effect on student members (Long, 2012a). To test this theory, Robert Love (2015) conducted a qualitative study of 12 fraternity students who lived in a fraternity house, assessing the residential experience and its relationship on the leadership identity of those students. Through a case study using focus groups and in-depth, semi-structured interviews, Love (2015) found six emerging themes that illustrate the positive influence of the residential environment: "a. multiple support systems, b. diversity of other viewpoints, c. older fraternity brothers' influence, d. positional leadership roles, f. brotherhood events, and g. formal chapter meetings (p. 84)." Though the findings in this study may have been a reflection of the chapter being "a high-functioning chapter as measured by awards and recognition" (Love, 2015, p. 100), the outcomes suggest opportunities for positive engagement in a fraternity house setting.

Learning communities have proven to be an effective way to combine classroom learning with out of class experience (Spanierman, et al., 2013). Blackburn and Janosik (2009) studied sorority and fraternity housing as a possible learning community. They identified 101 affiliated women and 100 affiliated men from eight on-campus sorority houses and 63 affiliated men from nine off-campus fraternity houses (Blackburn & Janosik, 2009). Outcomes of the Blackburn and Janosik (2009) study showed mixed results. Students living in chapter housing felt a strong sense of community and active engagement with their organization and institution. However, the study revealed that sorority and fraternity members did not characterize their residential environment as a place of learning (Blackburn & Janosik, 2009). Fraternities and sororities without housing facilities as well as the sorority with an off campus housing facility were not

surveyed as part of this study (Blackburn & Janosik, 2009). Also, the authors of the study did not identify the councils to which each chapter belonged.

Vetter (2011) noted a limitation of the Blackburn and Janosik 2009 study in that differences in size and location of on-campus and off-campus fraternity housing was not taken into account. Vetter (2011) conducted a study to examine the levels of thriving (engaged learning, diverse citizenship, academic determination, positive perspective, and social connectedness) for sorority and fraternity members versus non-affiliated students based on residential location and type. Research has shown thriving can account for significant variance in student success (Schreiner, Edens, & McIntosh, 2011). Vetter's (2011) findings indicated no significant difference on the variance of thriving based on residential type (fraternity houses, traditional residence halls, or apartment-style residences). Sorority and fraternity involvement (regardless of residential location) was positively associated with social connectedness but there was no significant relationship between sorority/fraternity members and diverse citizenship (Vetter, 2011). Additionally, there was a negative correlation between sorority and fraternity involvement and Engaged Learning, suggesting Greek organizations identify additional opportunities to involve their members in specific programs to promote academic success (Vetter, 2011). Vetter's study (2011) does not provide conclusive guidance for institutions wishing to develop sorority/fraternity housing. As such, university administrators and inter/national organizations should identify additional mechanisms for promoting learning within the sorority/fraternity residential community.

Differences exist for those living in traditional residential environments and those in sorority/fraternity facilities. Larry Long (2014) compared the experiences of students

living in campus residence halls to those living in sorority/fraternity housing. The findings indicate dissimilarity, particularly in terms of programming, safety, interaction with peers, and living conditions (Long, 2014). Traditional residence hall students reported feeling safer and more satisfied with their living conditions than those living in sorority/fraternity housing (Long, 2014). In contrast, students living in sorority/fraternity housing cited a higher degree of satisfaction with peer interaction and sense of belonging than those living in residence halls (Long, 2014). There was no difference in the study habits of the two living experiences but women, regardless of living experience did report studying more frequently than men (Long, 2014).

Research shows that academic outcomes also vary by housing type. As an example, Morettes (2010) studied the perceptions of sorority members who moved to an on-campus sorority/fraternity housing facility after living in an off-campus facility. This qualitative research yielded significant differences between the two environments. Specifically, students residing in off-campus housing reported that their academic performance declined during their time living off campus (Morettes, 2010).

Additional research on sorority/fraternity facilities indicates differences in members' misuse of alcohol and other drugs. Sidani, et al., (2013) explored marijuana use and binge drinking for sorority and fraternity students. Students living in sorority/fraternity housing reported a higher level of drug use and binge drinking than those who did not live in the chapter facility. Gibson, et al. (2017) compared alcohol and drug use among sorority and fraternity members versus non-affiliated students at two neighboring institutions in the mid-Atlantic region. One institution allowed sorority/fraternity housing on campus. The other institution recognized sororities and

fraternities but did not permit chapter housing on campus. As such, sororities and fraternities established unofficial chapter houses off campus. Greek-affiliated students living in on-campus chapter facilities reported significantly lower alcohol use than those residing in off-campus, unrecognized chapter housing (Gibson, et al., 2017). Further, Greek and non-Greek students at the institution with unrecognized off-campus Greek housing were significantly more likely to use alcohol and marijuana in Greek housing than students attending the institution with on-campus Greek housing. Finally, males "were more than twice as likely and females more than nine times as likely to use marijuana in off-campus, unrecognized Greek housing than in on-campus Greek housing" (Gibson, et al., 2017, p. 315).

In addition to residential living spaces, some sorority and fraternity facilities include in-house dining. To measure the effects of chapter dining, Mize and Valliant (2012) studied meal consumption patterns of Panhellenic women who are required to purchase meal plans in the dining facility within their chapter house. Seventy-two White women in Panhellenic chapters completed a 62-item questionnaire of Eating Behaviors, a 24-hour dietary recall interview, and a Body Mass Index (BMI) assessment (Mize & Valliant, 2012). Members who consumed six or more meals per week at the sorority house had a lower BMI and a greater mean intake of each food group than those consuming less than six meals per week (Mize & Valliant, 2012). Mize and Valliant (2012) noted that sororities with dining facilities "are in a unique position to influence the health choices of members by offering and communicating healthy food options" (p. 58). Through healthy menus and structured meal times, student organization dining facilities can provide members with for consistent and healthy eating options.

Theoretical Framework

Sense of Belonging

Belonging, as a basic human motivation is tied to an individual's self-esteem, self-worth, identity, and purpose (Strayhorn, 2019). Students who are socially integrated, connected to the institution, have positive peer relationships and a strong sense of belonging are more likely to persist in college (Glass, Kociolek, Wongtriat, Lynch, & Cong, 2015; Morrow & Ackerman, 2012; Tinto, 1993). Sense of belonging is especially important in environments where "individuals are prone to feel alienated, invisible, (pre)judged, stereotyped, or lonely" (Strayhorn, 2019, xiv.). In the college environment, sororities and fraternities offer the social framework to potentially satisfy an individual's feeling of connectedness and support. As such, sense of belonging provides an appropriate theoretical foundation for this study.

Strayhorn (2012) outlined seven core elements of sense of belonging. The first is that sense of belonging is a basic human need expressed as two types: latent (unaware of and not actively requested) and expressed (conscious and present) (Strayhorn, 2012). Secondly, sense of belonging is "a fundamental motive, sufficient to drive human behavior" (Strayhorn, 2019, p, 32). With a motive, people are more likely to act. In a college setting, Strayhorn (2019) contends, the motive is not always healthy or productive, particularly in sororities and fraternities where students, in a desperate need to belong, subject themselves to dangerous hazing.

In the third element, sense of belonging is increasingly important in "certain contexts, at certain times, among certain people" (Strayhorn, 2019, p. 19). As examples, college students feel most vulnerable (and feel an increased need to belong) in an

academic course where they are struggling, or during a crisis. The fourth element explains belonging and its relationship to, or consequence of mattering – where someone, Strayhorn (2019) contends, feels cared for and valued (Strayhorn, 2019).

In the fifth element, "social identities intersect and affect college students' sense of belonging" (Strayhorn, 2019, p. 37). Here, Strayhorn (2019) shares the importance of accepting oneself as is, rather than simply fitting in with a culture, or setting just to belong. The sixth element (Strayhorn, 2019) explains the positive outcomes associated with sense of belonging including happiness, accomplishment, and wellness. The seventh element indicates that sense of belonging can change as experiences and context change and must be satisfied continually (Strayhorn, 2019).

Walton and Cohen (2011) determined sense of belonging could be affected by a single episode of isolation or rejection. In their study, researchers delivered an intervention to two cohorts – African-American students (N=49) and European-American students (N=43). Walton and Cohen (2011) had participants (in the treatment-condition group) read other students' essays about their concerns related to belonging as being temporary, common, and unrelated to personal (perceived) inadequacies. Participants then wrote their own essays to explain how their experiences mirrored the others followed by a speech, which, they believed, would be shown to future students. Three years after the intervention, the African-American students in the treatment group reported a higher GPA and improved health (Walton & Cohen, 2011). The intervention, researchers claim, "prevented students from seeing adversity on campus as an indictment of their belonging" (Walton & Cohen, 2011, p. 1447).

Researchers have argued a student's (or parent/guardian's) income can influence their sense of belonging (Ostrove, Stewart, & Curtin, 2011; Soria & Stableton, 2013). To enhance social connections, students create social pathways that can create a financial burden for students and "potentially place their learning and development at risk" (McClure & Ryder, 2018, p. 199). Armstrong and Hamilton (2013) found that low-income and working-class students have particular difficulty covering costs associated with the college social experience. To better understand the relationship between costs of belonging and a student's access to social relationships, McClure and Ryder (2018) gathered survey and focus group data on financially independent students and those from low, middle, and high-income families. Participants with limited access to money often sought "relationships more commensurate with their financial resources" (McClure & Ryder, 2018, p. 206). Higher income students were more likely to participate in sororities and fraternities and study-abroad trips, dine out with peers, and meet friends for coffee (McClure & Ryder, 2018). In contrast, students from lower-income families turned down opportunities for organizational involvement and "ended friendships they could not afford" (McClure & Ryder, 2018, p. 206). When cost is attached to sense of belonging in college, involvement opportunities and experiences can "effectively 'price out' students who lack the financial resources to participate" (McClure & Ryder, 2018, p. 217).

Bronfenbrenner's Bioecological Theory of Human Development

A foundational framework for this study is Bronfenbrenner's (1979) ecological systems theory. Bronfenbrenner (1979) defines human development as:

> The process through which the growing person acquires a more extended, differentiated and valid conception of the ecological environment, and becomes

> motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content. (Bronfenbrenner, 1979, p. 27)

This model provides a useful context for understanding the interaction of a person and their environment and, specifically the influence of peer culture on the development of college students. Sororities and fraternities can provide the opportunity for significant and impactful relationships within closely connected settings. As such, Bronfenbrenner's (1977, 1979) work connects with this study in many ways.

Bronfenbrenner's (1993) ecology model includes "a system of nested, interdependent, dynamic structures ranging from the proximal, consisting of immediate face-to-face settings, to the most distal, comprising broader social contexts such as classes and culture" (1993, p. 4). To explain an individuals' development in the context of their environment, Bronfenbrenner (1993; 1995; 1997) explained the ecological systems:

- *Microsystem:* the innermost layer of the model and encompasses an individual's interpersonal relationships and direct interactions with a person's immediate surroundings. Bronfenbrenner (1997) describes the microsystem as

  > A pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit, engagement in sustained, progressively more complex interaction with, and activity in, the immediate environment. (p. 307)

- *Mesosystem*: encompasses interactions between the various components within the microsystem and the influence of those interactions on the

development of the individual (Bronfenbrenner, 1995). The mesosystem is comprised of

> The linkages and processes taking place between two or more settings containing the developing person. Special attention is focused on the synergistic effects created by the interaction of developmentally instigative or inhibitory features and processes present in each setting. (Bronfenbrenner, 1997, p. 314)

- *Exosystem*: contains elements of the microsystem that do not have a direct effect on the individual but may influence his/her environment (Bronfenbrenner, 1993).
- *Macrosystem*: includes cultural and societal "belief systems, resources, hazards, lifestyles, opportunity structure, life course options, and patterns of social interchange" (Bronfenbrenner, 1993, p. 25).
- *Chronosystem*: refers to major experiences, transitions, or historical events that affect an individual during the course of their life (Bronfenbrenner, 1997).

Barber et al., (2015) applied this theory to the sorority/fraternity experience noting the levels are "embedded within and external to the college environment that affect a person's development" (p. 247). See Figure 1 on the application of Bronfenbrenner's Ecological Systems Theory (1977, 1986, 1994, 2005) to sorority/fraternity life. Examples of microsystems within sorority/fraternity communities are the interactions between individual member(s) and their environment in a particular setting. Specifically, microsystems in a sorority or fraternity chapter might include relationships between a member and their alumni/ae, chapter advisors, organization, or

university (Barber, et al., 2015). Chapters host meetings and often live together in a residence hall or house, “which may affect the quality of interactions among members and may silo members from interacting with informal groups and campus organizations external to the fraternity/sorority community” (Barber et al., 2015, p. 249). The mesosystem, in sorority and fraternity communities includes the relationships among chapters and within the greater campus culture (Barber, et al., 2015). Here, conflict is likely as chapters attempt to adhere to university policies that apply to all organizations, regardless of size and scope. In the exosystem, the governing councils, alumni, and inter/national headquarters indirectly affect the individuals in the organizations (Barber, et al., 2015). Students may not be involved in the policy changes at a national level but those decisions can change the course of a student’s experience. As the macrosystem includes the culture and social norms of the environment, an example in sorority/fraternity community is how the “campus culture relates to student demographics and dominant/marginalized groups” (Barber, et al., 2015, p. 252). The chronosystem was added in 1986 by Bronfenbrenner to “include the changes and continuities over time in the environment” (Barber et al., 2015, p. 253). In sorority and fraternity communities, the legal drinking age change, state and federal legislation, and social media are examples of the elements of the chronosystem affecting students.

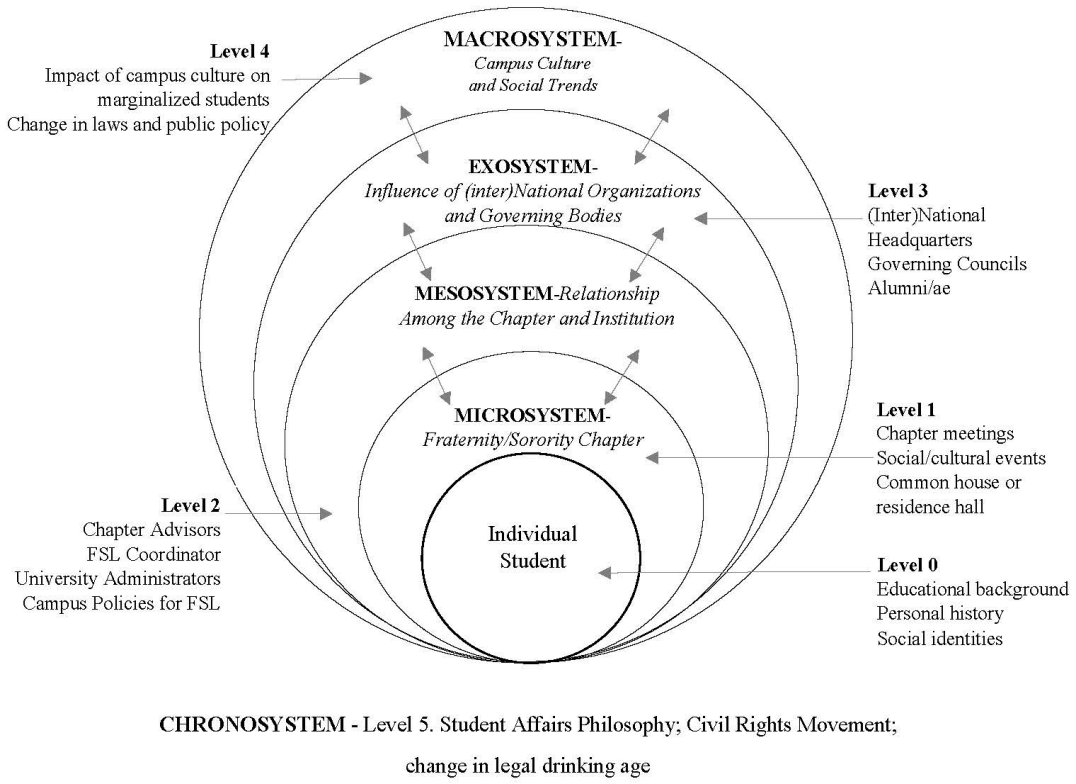

Figure 1. Use of Bronfenbrenner's framework in working with members of fraternities and sororities. Reprinted from "Fraternities and Sororities: Developing a Compelling Case for Relevance in Higher Education", by J. Barber, M. Espino, and D. Bureau, 2015, in *Today's College Students* (p. 248), by P.Sasso and J. DeVitis (Eds.), New York, NY: Peter Lang Publishing. Copyright 2015 by Pietro A. Sasso and Joseph L. DeVitis.

Garcia (2017) studied Latinx students at PWIs and the impact of involvement on their student experience. Campus subcultures, Garcia (2017) suggests, can positively influence a student's sense of belonging. Utilizing Bronfenbrenner's (1997) description of a microsystem, Garcia (2017) identified characteristics of campus spaces that created a more positive sense of belonging amongst the study participants. Whether dining venues, statues, courtyards, or meeting rooms, students associated certain spaces with their

cultural identity, and served as "a tangible representative of the care and love" felt when in that space (Garcia, 2017, p. 207).

Cohen (2015) referenced Bronfenbrenner's (1993) model in explaining how sisterhood transcends a sorority member's experience. Cohen (2015) believed sororities served as an ecological niche for its members. The niche, according to Bronfenbrenner (1993) is a "specified region in the environment that is especially favorable or unfavorable to the development of individuals with particular personal characteristics" (p. 22). As there are varying levels of sisterhood within a sorority, so too are the opportunities for connectivity and common purpose (Cohen, 2015).

Summary

Sorority and fraternity facilities may promote a sense of community, providing members a place to live, dine, and meet (Montgomery & Miller, 2011). However, the cost of such facilities raises questions about privilege (Ray & Rosow, 2012). As fraternities and sororities encourage community, personal growth, development, and a sense of belonging (Hevel, et al., 2018), Strayhorn (2012)'s Sense of Belonging theory and Bronfenbrenner's (1979, 1997) Bioecological Theory of Human Development are further explored as theoretical frameworks for this study.

Chapter 3. METHODS

Purpose

Research links sorority/fraternity involvement to enhanced personal development (Long, 2012a), sense of belonging (Strayhorn, 2012), graduation (Walker, et al., 2015; Yates, 2018) and career success (Gallup, 2014). Further, students in sorority/fraternity housing have reported positive peer engagement and social connectedness (Wessel & Salisbury, 2017), improved leadership identity (Love, 2015), and academic success (Morettes, 2010). While varying types of sorority/fraternity housing, dining, and meeting facilities exist, very few studies examine the potential benefits or disadvantages of each (Vetter, 2011). As institutions and chapters invest in expensive residential facilities and other high-end amenities to compete for students (Potter, 2011), it is important to identify the role these facilities play in a student's chapter and collegiate experience. Additionally, when the expense of these facilities is covered by the student membership, these costs may limit participation in the sorority/fraternity experience.

The purpose of this study was to better understand sorority/fraternity member experiences and evaluate student outcomes based on the chapter facilities in which they live, dine, and meet. Specifically, this study attempts to determine if sorority/fraternity members with chapters owning or leasing facilities (of varying sizes and types) differ from those without. Sororities and fraternities make up a diverse community of more than 200 national and international organizations (Bureau & Barber, 2017). While each organization has its own distinct values (Tull & Shaw, 2017), many promote a similar purpose – to create a social community of peers, encourage leadership and service, and establish a support network during and beyond the college years (Tull, Shaw, & Barker,

2018). These organizations can influence (positively and negatively) a student's behavior and experience (Biddix, et al., 2014). Furthermore, the physical environment in which the organization gathers, holds meetings, resides, and/or shares meals also has the potential to shape a student's sense of community, involvement and social integration (Wessel, & Salisbury, 2017). Yet little research has explored the role of sorority and fraternity chapter facilities in a member's experience.

This study compared the self-reported outcomes of sorority/fraternity members to determine the relationship between these outcomes and facility type. Additionally, I conducted an analysis of student responses by specific facility type to ascertain possible differences between each. Using quantitative methods, I utilized sample data from institutions that participated in the Fraternity and Sorority Experience Survey (FSES). This chapter presents a summary of the methods used for this study including the research questions, hypotheses, instrument, population and sample, variables and constructs, data collection, and statistical analysis.

Methods

Overview

Researchers have demonstrated the importance of sorority and fraternity involvement in developing college students' knowledge, acquisition, construction, integration, and application (Martin, et al., 2012), intrapersonal development (Dugan, Bohle, Woelker, & Cooney, 2014), interpersonal competence (Bannon, Brosi, & Foubert, 2013), humanitarianism and civic engagement (Bureau, Ryan, Ahren, Shoup, & Torres, 2011), and practical competence (Sema, Wiese, Simo, 2019). Contrarily, students involved in sororities and fraternities may be less likely to understand and appreciate

diversity (Morgan, Zimmerman, Terrell, & Marcotte, 2015; Zimmerman, Morgan, & Terrell, 2018). While this research is helpful in understanding opportunities and challenges for the sorority/fraternity community, little is known about how these outcomes differ based on the facility type owned or used by the organization. This study attempted to better understand the sorority/fraternity experience in this context.

As college students' "social identities and campus environments" (Strayhorn, 2019, p. 3) can shape one's ability to succeed, Strayhorn's (2019) research on sense of belonging and Bronfenbrenner's Bioecological Theory of Human Development (1979, 1997) served as the foundation for this research. Further, as peer culture plays an important role in a student's identity, the ecology model provided a useful structure for understanding a student's interactions with their peers (classified as microsystems in the Bronfenbrenner model) and how those microsystems interact with one another to form a mesosystem. Engagement with peers through social gatherings or organization involvement can foster a student's sense of belonging (Strayhorn, 2012, 2019). Strayhorn (2019) further asserted involvement in college contributes to a student's sense of belonging by, in part "familiarizing students with the campus environment and ecology" (p. 152).

Using the Council for the Advancement of Standards in Higher Education (CAS) student learning domains (2015), this study assessed student survey participants' knowledge acquisition, construction, integration and application, intrapersonal development, interpersonal competence, humanitarianism and civic engagement, and practical competence. The sixth domain, cognitive complexity (CAS, 2015) was not

directly measured in the FSES and was, therefore, not included as a construct in this research study.

Research Questions and Hypotheses

This study was guided by two research questions and three hypotheses:

1. Do members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility and council type?

   H_1: Members of sororities and fraternities with chapter mega facilities will actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type.

   H_2: There will be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of council type) and those without chapter facilities (regardless of council type).

2. Does the cultural appreciation of members differ by facility and council type?

   H_3: Members of NPHC and MGC chapters will report a stronger sense of cultural appreciation than members of IFC or Panhellenic organizations, regardless of facility type.

Instrument

For this study, I analyzed previously collected data from the 2017-2018 Fraternity and Sorority Experience Survey (FSES). The FSES, housed at the Center for Fraternity and Sorority Research (CFSR) assesses student perceptions of and satisfaction with their sorority/fraternity experience, measuring learning outcomes associated with the Association of American Colleges and Universities Essential Learning Outcomes, Call

for Values Congruence, and the Council for the Advancement of Standards in Higher Education (Center for the Study of the College Fraternity [CSCF], n.d.). The FSES was derived from the University of Minnesota's Greek Experience Survey, the College Student Experiences Survey, and the University of Southern Illinois Core Institute's Alcohol and Other Drug Survey (Cogswell, Fosnacht, Maynen, Veldkamp, & Pike, 2019). The online survey includes thirty-three questions,

> Arranged into five constructs: Learning (academic experiences, educational programming, mentoring and leadership); Values (integrating fraternity and/or sorority into life, personal growth and development, civic/community engagement); Alcohol/Social Issues (alcohol and drug use, social and sexual misconduct, intervention behaviors); Operations (chapter activities, advising, alumni/ae involvement, membership intake process); Community (sense of belonging, impact of chapter housing on experience, relationships outside the chapter). Cogswell, et al., (2019)

Institutions and organizations have the option to add additional questions to measure experiences relevant to their specific campuses. (CSCF, n.d.)

In 2015, the Center for the Study of the College Fraternity (CSCF) announced a redesign of the survey and added questions about values and attitudes related to alcohol, sexual misconduct, bystander intervention, and social behavior (Veldkamp, 2015). In redeveloping the survey, doctoral students from the Indiana University School of Education conducted focus groups, evaluations from experts in the field, and a comprehensive literature review of current trends and issues (Veldkamp, 2015).

In recent years, the FSES has been expanded (Barber, Biddix, Hesp, Norman, & Bureau, 2019). Since 2015, more than 70,000 college students have completed the survey (Cogswell, et al., 2019). Participants represent a diverse sample of institutions and students – including, but not limited to culturally based organizations. Though the participation of cultural groups is relatively small compared to historically White organizations, this more diverse representation "adds a new perspective to fraternity/sorority research, which historically has focused on the experiences of majority-White groups" (Barber et al., 2019, p. 171).

Psychometric Properties

The CSCF conducted content validity testing in 2013 (CSCF personal communication, June 26, 2019). Researchers directed a comprehensive literature review and focus group assessments to determine if the FSES survey questions represented appropriate outcomes of the sorority and fraternity experience. They interviewed students at 15 institutions drawn from six large, public research universities, six mid-size urban institutions, and three small private schools. Individuals from NPHC, IFC, and Panhellenic council organizations were interviewed as part of the study. Through the focus groups, researchers determined the FSES did not adequately measure student development and cognitive gains in the survey. As such, the CSFR redesigned the questions to explore these measures more deeply. Researchers modified social behavioral questions to align with literature and feedback from focus groups. Also, they integrated student identity development, mental health, eating disorders, and bystander intervention into the questions (CSCF personal communication, June 26, 2019). As part of this

research study, I evaluated reliability for the newly created scales. After I realigned the items into factors, I calculated the score reliability of each subscale.

Population and Sample

The original 2017-2018 FSES dataset included 24,108 participants from 19 institutions and two (inter) national headquarters. The CSCF sent a sample from the larger dataset, which included 12,742 participants from 11 institutions. The data from the (inter) national headquarters were removed due to the amount of time it would have taken to determine facility types for the institutions represented in that subset. The institutions represented in the initial sample dataset included: Baccalaureate Colleges: Arts and Sciences Focus (2); Master's Colleges & Universities: Small Program (1); Master's Colleges & Universities: Larger Programs (1); and Doctoral Universities: Very High Research Activity (7).

Sampling Strategy

I obtained a list from the CSCF of institutions that participated in the 2017-2018 survey. To determine the sorority/fraternity facility type of each chapter from every participating institution, I conducted an in-depth analysis through a website search of each campus's sorority/fraternity community and phone calls to each institution's sorority/fraternity office. Of the institutions participating in the 2017-2018 FSES survey, I selected 11 institutions based on who responded to the request for specific facility type by chapter. I then categorized the data by council and facility type and submitted to the CSCF for further review. CSCF then created identifiers by facility, council, and institution type and returned the data in aggregate, with all personal identifiers omitted. In the final sample, I excluded data from two institutions with local chapters as, for

comparison purposes, it was unclear the council to which each chapter belonged. Additionally, seven chapters from five institutions were either incorrectly characterized (by facility) or omitted in the institution's initial responses to my request. As such, I removed those data from the final sample. I used a stratified sampling technique by dividing the population into subgroups (by facility type and council type) and then drawing a sample from each subgroup (Creswell & Creswell, 2017).

The final sample was comprised of 11,274 sorority and fraternity members from nine post-secondary institutions with student populations ranging from 2,267 to 37,155. Institutions in this sample consisted of seven public doctoral universities, one private baccalaureate college, and one public master's university (Indiana University, 2018) located in the northeast, Midwest and southeastern United States. Institution types included Liberal Arts, Comprehensive, and Land-Grants in rural, suburban, and urban environments. The student participants represented 296 individual chapters. Of the participating chapters, 139 had mega facilities, 53 had moderate facilities, three had meeting-only facilities, and 101 had no facilities. All but one institution in the sample had participants from each of the four council types. See Table 1 for an overview of the sizes of each subset within the data sample used for this study.

Table 1

Sizes of Each Subset Within the Data Sample

Facility Types	Number	Council Types	Number
Mega Facilities	139	Panhellenic	80
Moderate Facilities	53	IFC	129
Meeting-Only	3	NPHC	49
No Facilities	101	MGC	38
TOTAL	256		256

Variables and Measurement

For purposes of this study, I utilized the Council for the Advancement of Standards (CAS, 2015) Learning and Developmental Outcomes to assess the experiences of sorority and fraternity members. In examining the role of sororities and fraternities in various institutional cultures, CAS (2015) created a framework for practitioners to measure students' behavior, values, and learning (Barber, et al., 2015; CAS, 2015). The CAS (2015) "promotes standards to enhance opportunities for student learning and development from higher education programs and services" (p. 1). The CAS student learning domains support the holistic learning of all students, integrating curricular and co-curricular components essential to success during and beyond college (CAS, 2015). Additionally, the dimensions of outcome domains and examples of learning and development outcomes in the revised CAS learning outcomes (CAS, 2015) were adapted from outcomes referenced in *Learning Reconsidered* (Keeling, 2004) and aligned with the FSES survey questions (see Table 2.). Because the FSES measured learning outcomes

associated with CAS (CSCF, n.d.), the CAS student learning domains provided a useful context for evaluating sorority/fraternity members' experiences.

Table 2

Council for the Advancement of Standards Learning and Developmental Outcomes (2015)

Student Outcome Domain	Dimensions of Outcome Domain
Knowledge acquisition, construction, integration, and application	Understanding knowledge from a range of disciplines; connecting knowledge to other knowledge, ideas, and experiences; constructing knowledge; relating knowledge to daily life
Intrapersonal development	Realistic self-appraisal, self-understanding, and self-respect; identity development; commitment to ethics and integrity; spiritual awareness
Interpersonal competence	Meaningful relationships, interdependence, collaboration, effective leadership
Humanitarianism and civic engagement	Understanding and appreciation of cultural and human differences; global perspective; Social responsibility; Sense of civic responsibility
Practical competence	Pursuing goals; communicating effectively; technological competence; managing personal affairs; managing career development; demonstrating professionalism; maintaining health and wellness; living a purposeful and satisfying life

Table 2. Integrates CAS and *Learning Reconsidered* (Keeling, 2004) outcomes; domain categories adapted from *Learning Reconsidered* (Keeling, 2004) and Kuh, Douglas, Lund, and Gyurmek (1994).

Dependent variables for this study included five of the six student outcome domains (CAS, 2015) including knowledge acquisition, construction, integration and application; intrapersonal development; interpersonal competence; humanitarianism and civic engagement; and practical competence. The independent variables used were facility type and council type. To assess the depth and diversity of sorority and fraternity

communities (Torbenson & Parks, 2009), I reviewed individual participant data from four sorority and fraternity councils: National PanHellenic Council (NPHC) Multicultural Greek Council (MGC), National Panhellenic Conference (NPC), and Interfraternity Council (IFC). The data contained students nested within institutions, and within chapters.

To evaluate student outcomes, I utilized 24 of the 33 survey questions from the FSES that best aligned with the CAS (2015) student outcome domains. The level of measurement was a Likert scale (ordinal). The rating scale for items 1-14 was: 1 = *agree*, 2 = *somewhat agree*, 3 = *neither agree or disagree*, 4 = *somewhat disagree*, and 5=*disagree*. The rating scale for items 15-19 was: 1 = *never*, 2 = *once*, 3 = *twice*, 4 = 3-5 *times*, 5 = 6 *or more times*, 6 = *not applicable*. The rating scale for items 20-24 was: 1 = *agree*, 2 = *somewhat agree,* 3 = *neither agree or disagree*, 4 = *somewhat disagree*, 5 = *disagree*, 6 = *unsure*. See Table 3 for the list of FSES questions utilized and the specific student outcome domains associated with each. The items in the survey represented underlying but not observed variables and, as such, an exploratory factor analysis was needed to identify constructs.

Table 3

FSES Questions on Student Experience and Associated CAS Student Outcome Domains

Survey Item	SOD
My chapter experience has positively impacted my:	
1. Sense of personal values.	ID
2. Sense of integrity.	ID
3. Sense of my own cultural heritage.	HCE
4. Sense of campus community.	HCE
5. Ability to cope with problems on my own.	KA;IC
6. Ability to become involved in things that interest me.	IC;PC
7. Ability to develop positive relationships with others.	IC
8. Comfort with people of a different culture/race than my own	KA;HCE
9. Comfort with people with other religious and spiritual traditions	KA;HCE
10. Comfort with people of a different sexual orientation	KA;HCE
11. Commitment to serve the community	HCE
12. Commitment to social justice	HCE
13. Sense of confidence.	PC
14. Academic success	KA
In a typical week, how often have you:	
15. Encouraged others to limit drinking alcohol	KA;HCE;IC;PC
16. Encouraged others to limit taking recreational/prescription drugs	KA;HCE;IC;PC
17. Encouraged others to avoid an unwanted sexual situation.	KA;HCE;IC;PC
18. Set limits on my own drinking of alcohol	KA;HCE;ID;IC;PC
19. Intervened in harmful situation	KA;HCE;IC;PC
*In the context of your chapter, please indicate your level of agreement with the following statements**:***	
20. I feel empowered to stand up against behavior I do not think is right at chapter functions.	KA;HCE;ID;IC;PC
21. I have the skills to intervene in a chapter situation that may be a harmful experience.	KA;HCE;ID;IC;PC
22. I would respect someone who intervened in potentially harmful situation at a chapter function.	KA;HCE;ID;IC;PC
23. I want to be a part of a chapter that intervenes on a member's behalf when the person is unable to.	KA;HCE;ID;IC;PC
24. I believe my brothers/sisters will confront me if my behavior needs to be addressed.	KA;HCE;ID;IC;PC

Note. SOD = student outcome domains; KA = Knowledge acquisition, construction, integration, and application; HCE = Humanitarianism and civic engagement; ID = Intrapersonal development; IC = Interpersonal competence; PC = Practical competence

Four facility types were examined to determine possible trends/correlations with students' experiences. While participant responses were analyzed by facility type, it was

not known if the participant lived in the facility at the time they completed the survey or if they ever lived in the facility at any point during their time with the chapter. Facility types were categorized as: mega facilities (residential space for more than five individuals, meeting/study space and a dining area, where meals are typically catered in or prepared by a chef), moderate facilities (residential space for more than five individuals and meeting/study space), meeting-only facilities, and no facility. The term "mega facilities" is derived by literature on mega-chapters, defined as organizations with more than 200 members (Cohen, McCreary, & Schutts, 2016; McCready, A., Cohen, S., McCreary, G., & Schutts, J., 2017). McCready et al. (2017) found that the size of mega-chapters affects members' retention, sense of belonging, and quality of sisterhood experience. The additional categories (moderate facilities, meeting-only facilities and no facility) were derived from studies on residential attributes (Bronkema & Bowman, 2017; Chambliss & Takacs, 2014) and the effect of space on social interaction (Shushok, Farquhar-Caddell, & Krimowski, 2014; Strange & Banning, 2015).

Demographic Data

To segment the population into meaningful categories, I used the following demographic data from the FSES: academic classification, level of education completed by either parent/guardian, gender identity, sexual orientation, race/ethnicity, and other special statuses (international student, transfer student, veteran student, Pell Grant recipient, sorority/fraternity legacy). See Table 4 for demographic data. Because previous research identified differences on one or more of the variables across gender (Long, 2014; Love, 2015; McClure & Ryder, 2018), race (Spainerman, et al., 2013; Tindall, et al., 2011; Wessel & Salisbury, 2017), academic classification (Bronkema & Bowman,

2017; Long, 2012a), and financial status (Soria & Stableton, 2013; Walker, et al., 2015; Walton & Cohen, 2011) further analysis on these data could inform future practice.

Table 4

Demographic Data

Membership Status	
New Member	2505
Active Initiated Member	8476
Inactive member	186
Classification	
Freshman	2188
Sophomore	2851
Junior	2466
Senior	1879
Highest level of parent(s)/guardian(s) education	
Did not finish high school	65
High school diploma or G.E.D	1000
Attended college but did not complete degree	599
Associate's degree (A.A., A.S., etc.)	401
Bachelor's degree (B.A., B.S., etc.)	3700
Master's degree (M.A., M.S., etc.)	2571
Doctoral/ professional degree (Ph.D., J.D., M.D., etc.)	1134
Sexual identity	
Bisexual	165
Lesbian, gay, queer, or homosexual	58
Straight or heterosexual	9099
Don't know	52
Prefer not to respond	76
Other affiliations/statuses	
International Student	67
Transfer student	525
Veteran of Armed Forces	43
Pell Grant recipient	1183
Are/were Immediate family members in fraternity/sorority?	5204
Racial/Ethnicity	
American Indian or Alaska Native	159
Asian	285
Black or African American	376
White or Caucasian	8558
Hispanic or Latino	355
Native Hawaiian or Other Pacific Islander	36
Middle Eastern or North African	50
Other	70

Data Collection Approval

I was granted permission to utilize data previously collected by the CSCF for the purpose of this study. The approval letter is included in Appendix A. The CSCF followed appropriate protocols, receiving approval from the Institutional Review Board prior to collecting data from participating institutions and headquarters.

Statistical Analysis

The IBM Statistical Package for the Social Sciences (SPSS 26.0) was the software utilized for all statistical procedures (Muijs, 2010). To confirm the structure of the data and reliability of the scale, I conducted a factor analysis, defined as "a mathematical process of sequentially identifying solutions to the Equations that can be developed by the interrelationships of a set of items" (Howard, McLaughlin, Knight, 2012, p. 467). Specifically, I used a principal components analysis to allow for the exploration of the factor structure of the measure. Because the FSES was designed to assess the congruence of sorority/fraternity values and member behavior (Cogswell, et al., 2019) it was not surprising that the emergent factors aligned with desired outcomes of the sorority/fraternity experience and the expected learning outcomes of college students, in general (CAS, 2015). The four factors emerging from the factor analysis included: fraternal values, active intervention, intervention perceptions, and cultural appreciation.

I used a factorial (4x4 design) multivariate analysis of variance (MANOVA) to determine the relationship between the dependent variables and the independent variables. With a MANOVA, testing dependent variables concurrently helped determine which factor was most important (French, Macedo, Poulsen, Waterson, & Yu, 2008) and allowed for a more in-depth analysis of differences in outcomes by facility type. To test

for homogeneity of covariance, I used Box's *M* analysis assessing whether the covariance matrices of the dependent variables were significantly different across levels of the independent variables (Tabachnick & Fidell, 2012). I utilized omega-squared (ω^2) to test for effect size (Warne, 2014). Then, a multivariate *F* value using Wilks' *lambda* was needed to determine the variance in the dependent variables that was not explained by differences in the levels of the independent variables (Warne, 2014). For any significant *F* test, I used the main effects of each independent variable on each of the dependent variables (Thompson, 2006). For *F* tests that were significant, I utilized a factorial (4x4 design) analysis of variance (ANOVA) (Finch & French, 2013). With the ANOVA analyses, I utilized post hoc Tukey pairwise comparisons where there were significant differences in the dependent variables (Tabachnick & Fidell, 2012).

Summary

Using a quantitative analysis, I reviewed data from the previously collected 2017-2018 FSES. I utilized a sampling strategy to assess sorority/fraternity members' responses based on the type of facility available to their organizations on the respective campuses. Specifically, I reviewed outcome ratings of individual members based on their assessment of the chapter's impact on their collegiate experience. To test the relationship between the dependent variables (knowledge acquisition, construction, integration and application; intrapersonal development; interpersonal competence; humanitarianism and civic engagement; and practical competence) and the independent variables (facility type and council type), I conducted a MANOVA.

Chapter 4. RESULTS

Introduction

The purpose of this study was to determine whether sorority/fraternity member experiences differed by chapter facility type. The study compared participant responses from the 2017-2018 Fraternity and Sorority Experience Survey (CSCF, n.d.) based on facility type and council type. I utilized previously collected data from the 2017-2018 Fraternity and Sorority Experience Survey to form a new sample using the exclusionary criteria explained in Chapter 3. This chapter provides the specific methodological analyses used to evaluate the research questions and corresponding hypothesis(es) as well as the associated results for each. I statistically analyzed the data by using the SPSS statistical software package (SPSS, 26.0). Analyses included an exploratory factor analysis, two one-way MANOVAs, and one one-way ANOVA.

Research Questions

The research questions and associated hypotheses for this study included:

1. Do members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility and council type?

H_1: Members of fraternities and sororities with chapter mega facilities will actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type.

H_2: There will be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of council type) and those without chapter facilities (regardless of council type).

2. Does the cultural appreciation of members differ by facility and council type?

H_3: Members of NPHC and MGC chapters will report a stronger sense of cultural appreciation than members of IFC or Panhellenic organizations, regardless of facility type.

Results

Factor Analysis

First, I used a principal components analysis (PCA) to explore the factor structure of the measure. Bartlett's test of sphericity indicated the inter-item correlation matrix was not an identity matrix and, as such, was passed ($\chi^2_{276} = 143270.415$, $p < .001$). The Kaiser-Meyer-Olkin test of sampling adequacy was also passed ($KMO = .93$). The scree analysis suggested retaining three or four factors (see Figure 1), although the K-1 rule would result in retaining four (see Table 5 for initial eigenvalues). To further test the number of factors to extract, I used Horn's parallel analysis. That analysis suggested four factors should be retained, because the fourth factor's eigenvalue (1.325) exceeded the mean of the randomly generated datasets (1.059) and the upper boundary of the 95% percentile of the randomly generate datasets (1.067). See Table 6 for the Horn's Parallel Analysis results. Because the factors were expected to be correlated, I used a direct Oblimin rotation. I applied a criterion pattern loading of .50 or higher to determine which items were loading onto which factors.

Items 1., 2., 4., 5., 6., 7., 11., 13., and 14 loaded onto Factor 1. Items 15., 16., 17., 18., and 19 loaded onto Factor 2. Items 20., 21., 22., 23., and 24 loaded onto Factor 3. Finally, items 3., 8., 9., 10., and 12 loaded onto Factor 4. Factor 1, characterized as fraternal values related to values-driven concepts and principles. Values-related questions

examined a member's personal growth and development, civic engagement, personal relationships, and integration into the organization and campus community. Factor 2 was comprised of items related to intervention behaviors at chapter events and was interpreted as active intervention. These items assessed students' active involvement in addressing concerns (alcohol, drug, and unwanted sex) and setting personal limits on alcohol intake. Factor 3, consisted of belief-oriented values associated with helping chapter members and was defined as intervention perceptions. The items in this construct explored students' feelings and attitudes about standing up to problematic behavior, assisting others in harmful situations, and respecting members who intervene. Finally, Factor 4, interpreted as cultural appreciation consisted of culture and social-justice oriented concepts. Questions in this factor measured student perceptions of their chapter's impact on comfort with others different from them, and sense of cultural heritage. Scale reliabilities (Cronbach's alpha) were .79 (active intervention and intervention perception), .89 (cultural appreciation) and .90 (fraternal values). See Table 7 for pattern and structure coefficients by factor. For inter-factor correlations, see Table 8. A complete list of items ordered by factor is outlined in Table 9.

Table 5

Initial Eigenanalysis

Component	Eigenvalue	% Var.	Cum. % Var.
1	9.01	37.54	37.54
2	3.28	13.70	51.23
3	2.33	9.71	60.95
4	1.32	5.52	66.48
5	0.80	3.36	69.83
6	0.67	2.80	72.63
7	0.63	2.59	75.22
8	0.58	2.42	77.65
9	0.52	2.19	78.85
10	0.50	2.11	81.97
11	0.46	1.95	83.91
12	0.42	1.76	85.67
13	0.41	1.73	87.40
14	0.34	1.43	88.83
15	0.34	1.41	90.25
16	0.32	1.34	91.59
17	0.31	1.30	92.88
18	0.30	1.21	94.10
19	0.29	1.20	95.29
20	0.28	1.17	96.46
21	0.27	1.13	97.60
22	0.25	1.06	98.66
23	0.18	0.73	99.39
24	0.15	0.61	100.00

Note. "% Var." is the percent variance explained, while "% Cum. Var." is the cumulative percent variance explained.

Table 6

Horn's Parallel Analysis Results

Component	Data	Means	95%ile
1	9.01	1.09	1.10
2	3.28	1.07	1.09
3	2.33	1.06	1.08
4	1.33	1.06	1.07
5	.81	1.05	1.06
6	.67	1.04	1.05
7	.62	1.04	1.04
8	.58	1.03	1.03
9	.54	1.02	1.03
10	.51	1.02	1.02
11	.47	1.01	1.01
12	.42	1.00	1.00
13	.41	1.00	1.00
14	.34	.99	.99
15	.34	.98	.98
16	.32	.98	.98
17	.31	.97	.97
18	.29	.96	.97
19	.29	.96	.96
20	.28	.95	.96
21	.27	.94	.95
22	.52	.93	.94
23	.18	.92	.93
24	.15	.91	.92

Note. "Data" is eigenvalues from the dataset, "Means" is the mean of eigenvalues produced via 100 iterations of random data, and "95%ile" is the upper boundary of the 95th percentile of the eigenvalues from 100 iterations of random data.

Table 7

Pattern and (Structure) Coefficients by Factor

	Fraternal Values	Active Intervention	Intervention Perceptions	Cultural Appreciation
1	0.89 (0.87)	-0.01 (-0.01)	0.08 (0.33)	-0.49 (0.53)
2	0.85 (0.86)	-0.09 (-0.01)	0.16 (0.33)	-0.04 (0.56)
3	0.17 (0.57)	-0.33 (-0.07)	-.02 (0.20)	0.62 (0.73)
4	0.77 (0.75)	0.02 (0.03)	0.01 (0.28)	-0.01 (0.53)
5	0.68 (0.76)	0.01 (-0.02)	-0.01 (0.30)	0.09 (0.62)
6	0.83 (0.83)	-0.00 (-0.01)	0.00 (0.32)	-0.00 (0.53)
7	0.86 (0.82)	0.02 (0.01)	0.04 (0.34)	-0.08 (0.48)
8	-0.02 (0.57)	0.01 (-0.04)	0.02 (0.24)	0.91 (0.90)
9	-0.20 (0.57)	0.02 (-0.03)	0.01 (0.24)	0.91 (0.90)
10	-0.09 (0.52)	-0.01 (-0.50)	0.03 (0.23)	0.92 (0.88)
11	0.62 (0.74)	-0.01 (-0.02)	0.02 (0.30)	0.18 (0.58)
12	0.31 (0.67)	0.01 (-0.02)	0.03 (0.29)	0.56 (0.76)
13	0.86 (0.83)	0.01 (0.00)	0.02 (0.00)	-0.08 (0.00)
14	0.68 (0.00)	-0.01 (0.00)	-0.12 (0.33)	0.07 (0.49)
15	0.01 (0.72)	0.83 (-0.02)	0.00 (0.26)	-0.05 (0.50)
16	-0.19 (-0.03)	0.85 (0.83)	-0.00 (0.01)	0.01 (-0.08)
17	0.00 (-0.02)	0.82 (0.85)	-0.00 (0.01)	0.01 (-0.04)
18	0.01 (0.01)	0.70 (0.82)	0.01 (0.02)	0.00 (-0.02)
19	0.00 (0.01)	0.84 (0.70)	-0.01 (0.02)	0.02 (-0.03)
20	0.19 (0.01)	-0.01 (0.84)	0.64 (0.01)	0.10 (-0.02)
21	0.79 (0.49)	-0.01 (-0.07)	0.73 (0.74)	0.11 (0.38)
22	-0.12 (0.42)	-0.00 (-0.00)	0.88 (0.79)	-0.40 (0.34)
23	-0.11 (0.18)	0.00 (0.02)	0.88 (0.82)	-0.06 (0.10)
24	0.22 (0.18)	0.02 (0.02)	0.67 (0.83)	0.10 (0.10)

Note: Structure coefficients are noted in parentheses.

Table 8

Inter-Factor Correlations

	1.	2.	3.	4.
1. Fraternal Values	-	-.01	.38	.64
2. Active Intervention	-.01	-	.02	-.05
3. Intervention Perceptions	.38	.02	-	.26
4. Cultural Appreciation	.64	-.05	.26	-

Table 9

Items Ordered by Factor

Item
Fraternal Values
My chapter experience has positively impacted my:
1. Sense of personal values.
2. Sense of integrity.
4. Sense of campus community.
5. Ability to cope with problems on my own.
6. Ability to become involved in things that interest me.
7. Ability to develop positive relationships with others.
11. Commitment to serve the community.
13. Sense of confidence.
14. Academic success.
Active Intervention
In a typical week, how often have you:
15. Encouraged others to limit drinking alcohol.
16. Encouraged others to limit taking recreational/prescription drugs.
17. Encouraged others to avoid an unwanted sexual situation.
18. Set limits on my own drinking of alcohol.
19. Intervened in a harmful situation in your chapter.
Intervention Perceptions
In the context of your chapter, please indicate your level of agreement with the following statements:
20. I feel empowered to stand up against behavior I do not think is right at chapter functions.
21. I have the skills to intervene in a chapter situation that may be a harmful experience.
22. I would respect someone who intervened in a potentially harmful situation at a chapter function.
23. I want to be a part of a chapter that intervenes on a member's behalf when the person is unable to.
24. I believe my brothers/sisters will confront me if my behavior needs to be addressed.
Cultural Appreciation
My chapter experience has positively impacted my:
3. Sense of my own cultural heritage.
8. Comfort with people of a different culture/race than my own.
9. Comfort with people with other religious and spiritual traditions.
10. Comfort with people of a different sexual orientation.
12. Commitment to social justice.

Note. Items are from the Fraternity and Sorority Experience Survey *(CSCF, n.d.).*

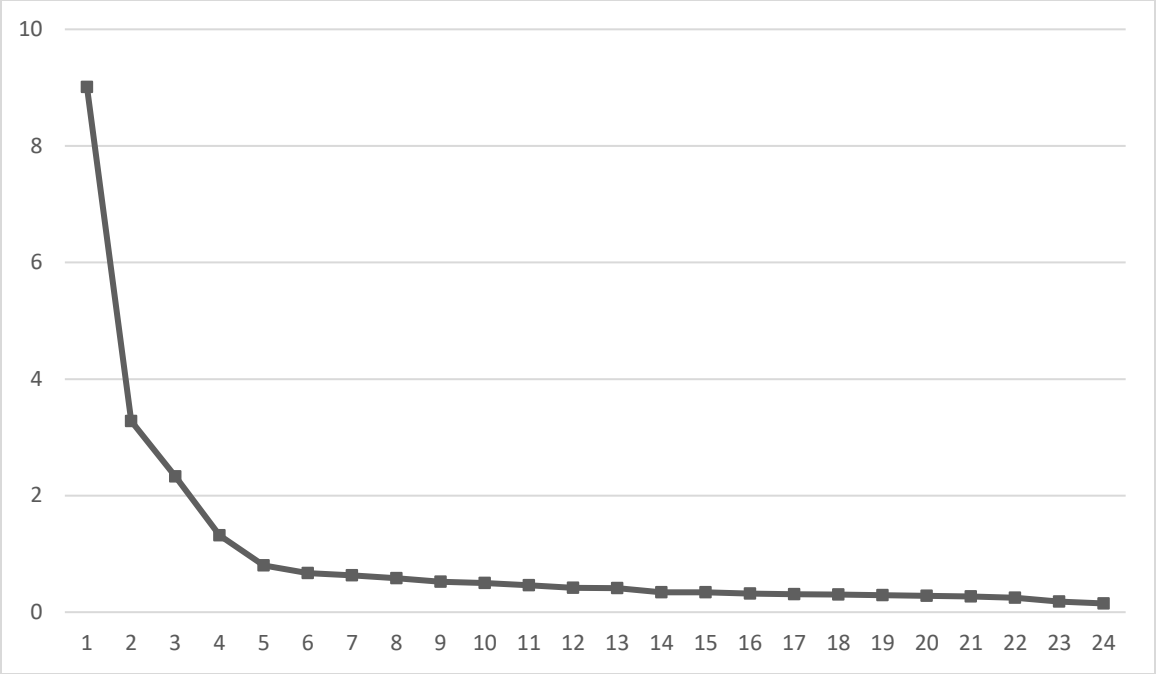

Figure 2. *Scree Plot of Initial Eigenvalues*

Variables: Missing Data, Data Recoding

The factor analysis revealed four outcome variables: fraternal values, active intervention, intervention perceptions, and cultural appreciation. Factor 1, fraternal values, measured student perceptions about the chapter's positive impact on personal and fraternal values. Factor 4, cultural appreciation assessed student opinions about their chapter's positive impact on a member's sense of cultural heritage, commitment to social justice, and comfort with people different from themselves. All items in Factor 1 and Factor 4 were measured on a five-point scale (1=*Agree*, 2=*Somewhat Agree*, 3=*Neither Agree or Disagree*, 4=*Somewhat Disagree*, 5=*Disagree*). Items assessed in Factor 3, intervention perceptions, were measured on a six-point scale (1=*Agree*, 2=*Somewhat Agree*, 3=*Neither Agree or Disagree*, 4=*Somewhat Disagree*, 5=*Disagree*, and

6=*Unsure*). On Factor 2 questions (active intervention), participants rated items using a six-point scale (1=*Never*, 2=*Once*, 3=*Twice*, 4=3-5 *times*, 5=6 *or more times*, and 6=*N/A*).

After conducting the factor analysis, I reviewed responses to all questions to determine the number of missing responses and mean scores for each question. Then, I evaluated responses for possible recoding in hopes of aligning all questions within the same scale of measurement. For items in Factor 3, intervention perceptions, 1.2% (average) of the responses were marked "6 (*Unsure*)." Due of the small number of "6 (*Unsure*)" responses and because the response did not bear significant meaning, I recoded all responses marked "6 (*Unsure*)" to questions 20., 21., 22., 23., and 24 as missing. Items in Factor 2, active intervention, also included a six-point scale. For question 17.,"In a typical week, how often have you encouraged others to avoid an unwanted sexual situation," a response of 1 (*Never*) implies the student saw the problematic behavior but did not intervene. Answering *N/A* on that same question might imply the member did not see that behavior and, therefore had no reason to intervene. Because *N/A* represented a meaningful response and an intentional choice on the part of the participant, I recoded *N/A* responses to questions 15., 16., 17., 18., and 19. to a newly assigned numerical score of 0.

Research Question One and Associated Hypotheses

Research question 1*: Do members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility type?*

Because there were no NPHC or MGC chapters with mega facilities, there was no way to determine interaction across all four council types. See Table 10 for sample sizes by facility and council type. As such, I conducted two separate MANOVAs to analyze

comparison of outcomes by facility type and by council type. See Table 11 for mean scores for dependent variables by facility type.

Table 10

Sample Sizes by Facility and Council Type

		Facility				
		Mega	Moderate	Meeting-Only	None	Total
Council	IFC	2138	729	42	202	3111
	Panhellenic	6924	731	0	84	7739
	NPHC	0	6	21	236	263
	MGC	0	2	0	159	161
	Total	9062	1468	63	681	11274

Table 11

Mean Scores for Dependent Variables by Facility Type

Dependent Variable	Facility Type	*M*	*SD*	*N*
Fraternal Values	Mega	1.35	.58	7667
	Moderate	1.35	.52	1266
	Meeting-Only	1.42	.64	49
	None	1.33	.52	608
	Total	1.35	.57	9590
Active Intervention	Mega	1.40	.84	7667
	Moderate	1.35	.82	1266
	Meeting-Only	1.21	.91	49
	None	1.23	.96	608
	Total	1.38	.85	9590
Intervention Perceptions	Mega	1.31	.53	7667
	Moderate	1.25	.43	1266
	Meeting-Only	1.27	.69	49
	None	1.19	.43	608
	Total	1.29	.51	9590
Cultural Appreciation	Mega	1.73	.86	7667
	Moderate	1.70	.78	1266
	Meeting-Only	1.63	.75	49
	None	1.45	.67	608
	Total	1.70	.84	9590

To determine if chapter experiences differed by facility type, I used a one-way MANOVA. Univariate normality was not met on skew or kurtosis for fraternal values (*skewness* = 2.64, *SE*= .024, *kurtosis* = 9.087, *SE* = .048), active intervention (*skewness* = .653, *SE* = .025, *kurtosis* = 1.163, *SE* = .049), intervention perceptions (*skewness* = 2.30, *SE* = .025, *kurtosis*, 5.90, *SE* = .050), and cultural appreciation (*skewness* = 1.366, *SE* = .024, *kurtosis* = 1.602, *SE* = .048). There was a significant difference in student experiences based on chapter facility ($\Lambda = .98$, $F_{12, 25354.53} = 14.60$, $p < .001$). About 1.8% of the variance in member experience was explained by facility type ($\omega^2 = .018$).

To follow up on the significant multivariate test, I conducted one-way ANOVAs. I utilized the Bonferroni adjustment (Snijders & Bosker, 2012) to control for familywise error, setting experimentwise alpha at .017. There was a significant difference in active intervention ($F_{3,9586} = 8.72$, $p < .001$) and intervention perceptions ($F_{3,9586} = 13.74$, $p < .001$) based on chapter facility type. However, there was no significant difference in fraternal values ($F_{3,9586} = .552$, $p = .648$) for those with mega, moderate, meeting-only or no facility. About .24% of the variance in active intervention was explained by facility type ($\omega^2 = .0024$), as was .39% of the variance in intervention perceptions ($\omega^2 = .004$), and .61% of the variance in cultural appreciation ($\omega^2 = .0061$).

Student perceptions of their chapter's impact on a member actively intervening in problematic situations was significantly different for members of chapters with mega facilities versus those with no facility ($p < .001$), and moderate facilities versus no facility ($p = .032$). There was, however no significant difference for those with mega versus moderate ($p = .180$), mega versus meeting-only ($p = .398$), moderate versus meeting-only ($p = .677$), and meeting-only versus none ($p = .998$). In terms of fraternal values, there

was no significant difference in any of the facility types: mega versus moderate (p = 1.0), mega versus meeting-only (p = .852), mega versus no facility (p = .761), moderate versus meeting (p = .861), moderate versus no facility (p = .828), and meeting-only versus no facility (p = .717). Participants generally agreed or somewhat agreed that the chapter had a positive impact on their fraternal values as the average mean was a 1.35. For the intervention perception factor, student beliefs about chapter impact was significantly different for those with mega facilities versus no facility ($p < .001$) and moderate versus mega ($p < .001$). No significant differences were found between mega versus meeting (p = .964), moderate versus meeting (p = .980), moderate versus none (p = .184), and meeting-only versus none (p = .721). Among the sample, those with moderate, meeting-only and no chapter facility placed a higher value on intervention than those with mega facilities. However, those with mega facilities actively intervened more often than those with moderate, meeting-only, and no facilities.

To determine if member experiences differed by council, I utilized a one-way MANOVA. There was a significant difference in student experiences based on council type ($\Lambda = .96$, $F_{12,\ 25354.53} = 34.35$, $p < .001$). About 4% of the variance in the sorority/fraternity experience was explained by council ($\omega^2 = .04$).

I used one-way ANOVAs to follow up on the significant multivariate test. I utilized the Bonferroni adjustment (Snijders & Bosker, 2012) to control for familywise error, setting experimentwise alpha at .017. Based on council type, there was a significant difference in fraternal values ($F_{3,7.291} = 22.025$, $p < .001$), active intervention ($F_{3,7.790} = 10.696$, $p < .001$), and intervention perceptions ($F_{3,21.016} = 80.127$, $p < .001$). About .65% of the variance in fraternal values was explained by council type ($\omega^2 = .007$), as was .30%

of the variance in active intervention ($\omega^2 = .0030$), and 2.4% of the variance in intervention perceptions ($\omega^2 = .02415$).

There was a significant difference in fraternal values between members of IFC versus Panhellenic ($p < .001$). However, there was no significant difference between IFC and NPHC ($p < .989$), IFC and MGC ($p < .898$), Panhellenic and NPHC ($p < .072$), Panhellenic and MGC ($p < .400$), and NPHC and MGC ($p < .986$). In terms of active intervention, there was a significant difference between members of IFC versus NPHC ($p < .001$), IFC versus MGC ($p < .001$), Panhellenic versus NPHC ($p < .001$), and Panhellenic versus MGC ($p < .001$). There were no significant differences on this variable between IFC and Panhellenic ($p = .772$), and between NPHC and MGC ($p < .949$). A significant difference in intervention perceptions was found between members of IFC versus Panhellenic ($p < .001$) and Panhellenic versus NPHC ($p < .001$). However, there was no significant difference between IFC and NPHC ($p = .877$), IFC and MGC ($p = .208$), Panhellenic and MGC ($p = .105$) and MGC and NPHC ($p = .170$). See Table 12 for mean scores for dependent variables by council type.

Participants in this sample generally agreed or somewhat agreed that their chapter positively impacted their fraternal values. The average mean rating for items in Factor 1, fraternal values was 1.35. Members of IFC and Panhellenic actively intervened in problematic situations more frequently than members of NPHC and MGC although the ratings on this measurement for all councils were positive (average mean = 1.384). On the intervention perceptions questions, IFC and NPHC members' ratings were more positive than that of their peers in Panhellenic and MGC.

Table 12

Mean Scores for Dependent Variables by Council Type

Dependent Variable	Council Type	*M*	*SD*	*N*
Fraternal Values	IFC	1.27	.46	2490
	Panhellenic	1.38	.61	6717
	NPHC	1.29	.42	229
	MGC	1.31	.55	154
	Total	1.35	.58	9590
Active Intervention	IFC	1.40	.91	2490
	Panhellenic	1.38	.83	6717
	NPHC	1.17	.87	229
	MGC	1.11	.99	154
	Total	1.38	.85	9590
Intervention Perceptions	IFC	1.16	.41	2490
	Panhellenic	1.34	.55	6717
	NPHC	1.14	.37	229
	MGC	1.25	.48	154
	Total	1.29	.52	9590
Cultural Appreciation	IFC	1.57	.73	2490
	Panhellenic	1.78	.89	6717
	NPHC	1.39	.54	229
	MGC	1.27	.50	154
	Total	1.70	.84	9590

Results for Hypothesis One. The first hyphothesis (H_1) was that members of sororities and fraternities with chapter mega facilities actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type. There was no significant difference in active intervention between those with mega facilities and those with moderate or meeting-only facilities. However, members with mega facilities ($M = 1.40$) actively intervened in problematic situations at chapter events more often than those with moderate ($M = 1.35$), meeting-only ($M = 1.21$) or no facility ($M = 1.23$). In evaluating active intervention responses by council, I found that IFC ($M = 1.41$) and Panhellenic members ($M = 1.39$) actively intervened in problematic situations more frequently than members of NPHC ($M = 1.17$) and MGC ($M = 1.12$). Because the MANOVAs had to be run separately (by facility type and by council), there was no method for determining if the hypothesis was met.

Results for the Hypothesis Two. The second hypothesis (H_2) suggested there would be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of type) and those without chapter facilities (regardless of council type). Though there were no significant differences in fraternal values based on facility type, there was a significant difference in fraternal values between members of IFC versus Panhellenic ($p < .001$). In addition, the results of student opinions about their chapter's impact on intervention perceptions indicated significant differences between IFC and Panhellenic ($p < .001$) and Panhellenic versus NPHC ($p < .001$). It was not possible to evaluate whether the hypothesis was met because there was no interaction between all groups.

Research Question Two and Associated Hypothesis

Research Question Two. *Does the cultural appreciation of members differ by facility and council type?* Because there were no NPHC or MGC organizations with mega facilities and no MGC chapters with moderate facilities, there was no way to determine interaction of the councils based on facility type. Therefore, to evaluate whether cultural appreciation differed by council type, I used a one-way ANOVA to evaluate differences between all councils with no facility. In this sample, there were 190 IFC members, 79 Panhellenic members, 219 NPHC members, and 155 MGC members who reported having no facility. Cultural appreciation was positively skewed (*skewness* = 1.837, *SE* = .096) and leptokurtic (*kurtosis* = 3.624, *SE* = .192). There was a significant difference in cultural appreciation between councils ($F_{3,639} = 12.927$, $p < .001$). About 5% of the variance in cultural appreciation was explained by council type ($\omega^2 = .052$). I utilized Tukey post-hoc tests to determine how cultural appreciation varied across each council. There was a significant difference in cultural appreciation between IFC and NPHC ($p < .001$), IFC and MGC ($p < .001$), Panhellenic and NPHC ($p = .015$), and Panhellenic and MGC ($p < .001$). There was no significant difference in cultural appreciation between IFC and Panhellenic ($p = .999$), or between NPHC and MGC ($p = .337$). See Table 13 for descriptive statistics for cultural appreciation ratings by council.

Table 13

Descriptive Statistics for Cultural Appreciation Ratings by Council

Group	*N*	*M*	*SD*	*SE*
IFC	190	1.643	.8312	.060
Panhellenic	79	1.630	.7380	.083
NPHC	219	1.373	.5372	.036
MGC	155	1.258	.5000	.040
Total	643	1.457	.6734	.026

Results for Hypothesis Three. The third hypothesis (H_3) posited that members of NPHC and MGC chapters would report a stronger sense of cultural heritage than members of IFC or Panhellenic, regardless of facility type. Students in NPHC ($M = 1.37$) and MGC ($M = 1.26$) had higher ratings on cultural appreciation than did members of Panhellenic ($M = 1.63$) and IFC ($M = 1.64$). However, I only ran an analysis of those with no facility because there were no MGC or NPHC groups in the sample with mega facilities and no MGC groups with moderate facilities. As with the other hypotheses, there is no way to completely interpret results because all facility types could not be compared across all councils.

Summary

In comparing outcomes for each of the four factors, the sorority/fraternity experiences of the students in this sample were generally favorable. The mean scores for all facility types indicated students generally felt their chapter had a positive impact on their values ($M = 1.35$), and cultural appreciation ($M = 1.70$). Likewise, sorority/fraternity members in this sample generally believed intervention with chapter members to be

necessary in problematic situations (*M* = 1.38). The results did show differences by chapter facility type but the ratings varied by factor. Those with no facility rated their chapter's impact on fraternal values (*M* = 1.33) and cultural appreciation (*M* = 1.45) more favorably than any of the other facility types. Likewise, those with no facility rated their intervention perceptions more positively (*M* = 1.23) than those with other facility types. Further, when asked about active intervention in problematic situations in a given week, those with no facility scored lower than those with facilities (*M* = 1.19). This means more responded *N/A* or *Never* on the questions in that construct and could be interpreted that members 1) did not witness a situation for which an intervention was needed, or 2) did not intervene even if an intervention was needed.

Students in chapters with no facility had a higher cultural appreciation rating (*M* = 1.45) than those with facilities. One reason for this result could be that students who lived, ate and met together in facilities operated in silos, away from those outside of the chapter. To further illustrate this point, students with no facility more positively rated their chapter's impact on comfort with people of a different culture/race than their own (*M* = 1.43) than those with facilities (*M* = 1.61).

Chapter 5. DISCUSSION AND IMPLICATIONS

The purpose of this study was to determine if sorority/fraternity member experiences differed across facility types. Bronfenbrenner's (1986; 1993) ecology of human development theory and Strayhorn's (2012, 2019) research on sense of belonging served as the theoretical foundation for this research. The study examined outcomes from participant scores on the Fraternity and Sorority Experience Survey (FSES) by comparing responses based on each of the four factors: fraternity values, active intervention, intervention perceptions, and cultural appreciation. Following the factor analysis that yielded the aforementioned factors, I conducted two one-way MANOVAs and one one-way ANOVA to determine results related to the research questions and related hypotheses. This chapter presents discussion and implications for practice, limitations of the study, and recommendations for future research.

Research Questions

The research questions and associated hypotheses for this study were:

1. Do members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility and council type?

   H_1: Members of sororities and fraternities with chapter mega facilities actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type.

   H_2: There will be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of council type) and those without chapter facilities (regardless of council type).

2. Does the cultural appreciation of members differ by facility and council type?

H_3: Members of NPHC and MGC chapters will report a stronger sense of cultural appreciation than members of IFC or Panhellenic organizations, regardless of facility type.

Discussion

The environment in which someone lives and the individual(s) with whom the person interacts can influence a person's development over time. Bronfenbrenner (1986) explained the ecology of human development as

> the progressive, mutual accommodation, throughout the life course, between an active, growing human being, and the changing properties of the immediate settings in which the developing person lives, as this process is affected by the relations between those settings, and by the larger contexts in which the settings are embedded (p. 188)

It is in these contexts that I assessed the relationship between sorority and fraternity members and the facilities in which they lived, met, and dined. Bronfenbrenner's (1993) theory suggests development as "an evolving function of person-environment interaction" (p. 10) which takes place "in the immediate, face-to-face" setting in which the person exists" (p. 10). These in-person interactions, in the sorority/fraternity setting may take place in a chapter facility, a chapter meeting, or informally on or off campus. The purpose of this research was to evaluate those experiences across various types of settings to determine if and how place mattered.

Of the sorority/fraternity outcomes examined in this study, four factors emerged. These included fraternity values, active intervention, intervention perceptions, and

cultural appreciation. These factors directly aligned with the Council for the Advancement of Standards (2015) student learning outcomes. Elements of knowledge acquisition, construction, integration and application, interpersonal development, interpersonal competence, humanitarianism and civic engagement, and practical competence were found in each of the four factors (CAS. 2015).

Research Question One

The first research question explored whether members' fraternal values, intervention perceptions, and intervention actions differ based on chapter facility and council type. A descriptive analysis indicated there were no NPHC participants with mega facilities, no MGC participants with mega or meeting-only facilities and no Panhellenic participants with meeting-only facilities. This is not surprising given the scholarship on the exclusionary nature of fraternity housing (Yanni, 2019). In the late 1800's, fraternities increased dues to fund construction of their chapter houses with the primary goal of improving their living conditions (Yanni, 2019). This reinforced the class hierarchy and differences between wealth of affiliated and non-affiliated students. For this study, it was not possible to examine the interaction across meeting types. Therefore, I used two one-way MANOVAs to examine if chapter experiences differed 1) by facility type and 2) by council type.

The first hypothesis was that members of sororities and fraternities with chapter mega facilities would actively intervene in problematic situations more often than members with moderate, meeting-only or no facility, regardless of council type. Participant ratings on the active intervention factor indicated differences across facility types. Sorority and fraternity members with chapter mega facilities actively intervened in

problematic situations more often than their peers with moderate, meeting-only, and no facility. Significant differences were found between those with mega facilities versus no facility ($p < .001$), and moderate facility versus no facility ($p = .032$). When comparing active intervention responses by council, members of IFC ($M = 1.40$) and Panhellenic ($M = 1.38$) intervened in problematic situations more often than members of NPHC ($M = 1.17$) and MGC ($M = 1.11$). There was a significant difference in participant responses for IFC and NPHC ($p < .001$), IFC and MGC ($p < .001$), Panhellenic and NPHC ($p < .001$), and Panhellenic and MGC ($p < .001$). Of the survey participants, 68% of IFC members and 89% of Panhellenic members were involved in chapters with mega facilities. This, in part explains why IFC and Panhellenic members have higher mean scores on questions related to active intervention.

These results align with previous research on the prevalence of high-risk behaviors at chapter houses. Fraternity houses have been described as environments that enable alcohol misuse and other unsafe activity (Borsari, Hustad, & Capone, 2009; Long, 2014; Menning, 2009). Scholarship on this topic further suggests those living in a chapter house are more likely to get involved in fights and use alcohol and marijuana (Collins & Liu, 2014). The differences between facility types on the active intervention factor may suggest those with mega facilities host events where problematic behaviors could occur and, therefore, have more opportunity to respond. Additionally, the insular nature of mega and even moderate facilities potentially amplify positive and negative attributes of a specific chapter. If the chapter values academic success, living amongst those striving for excellence can inspire growth (Blackburn & Janosik, 2009; Spanierman, et al., 2013). Contrarily, if a chapter is prone to frequent parties and excessive drinking, members

living amongst those who follow that pattern may be more inclined to engage in the same risky behaviors (Gibson, et al., 2017; Morettes, 2010). Further research on these points could better determine if these assumptions are accurate.

The second hypothesis was that there would be no significant difference in sorority/fraternity members' outcomes related to fraternal values or intervention perceptions between those with chapter facilities (regardless of council type) and those without chapter facilities (regardless of council type). I found the results related to this hypothesis to be mixed. In terms of fraternal values, there were no significant differences based on facility type. However, there were significant differences in intervention perceptions across facility types.

While participants from all facility and council types highly valued intervention in problematic situations, results showed differences in both measurements. Because the interaction across all facility types could not be determined, I conducted two one-way MANOVAs. There were significant differences in intervention perception responses between those with mega facilities versus no facility ($p < .001$) and mega versus moderate ($p < .001$). Significant differences were also found between IFC and NPHC ($p < .001$), IFC and MGC ($p < .001$), Panhellenic and NPHC ($p < .001$), and Panhellenic and MGC ($p < .001$). The mean rating on the intervention perception factor was positive across all council and facility types ($M = 1.29$), indicating most participants agreed or somewhat agreed they felt empowered, had the skills, and valued intervention in problematic situations. IFC ($M = 1.16$) and NPHC ($M = 1.14$) had the most positive ratings on this factor amongst all council types. A possible reason for these differences could be the type of programming conducted by each chapter or institution. Programs on

the bystander intervention model have been successful on college campuses (Coker, Cook-Craig, Williams, Fisher, Clear, Garcia, & Hegge, 2011; Foubert, Godin, & Tatum, 2010). Bystander intervention training is a "community approach to prevention that teaches bystanders appropriate ways to intervene prior to and during" a problematic incident (Bannon, et al., 2013, p. 74). Therefore, one might conclude that chapters with exposure to such programs may be likely to understand and value bystander intervention than those without. I did not measure programmatic components of the chapter experience as part of this study so the specific reasons for these differences could not be determined.

The results indicated significant differences on the active intervention and intervention perception scales. Additionally, although the mean scores for each were positive for all facility and council types, the differences are worth noting. In this sample, participants with moderate, meeting-only and no chapter facility placed a higher value on intervention than those with mega facilities. Conversely, those with mega facilities actively intervened more often than those with moderate, meeting-only, and no facilities. IFC and NPHC viewed intervention more favorably than MGC and Panhellenic. A possible reason for these differences is available in existing research on intervention beliefs versus active intervention. Bennett, Banyard, and Garnhart (2013) found college students are more willing to intervene when they feel supported by peers, know how to get help, and are not in danger themselves. It is possible that students in this sample who more strongly believed in intervention but were less likely to act either were not in situations where intervention was necessary, did not know the steps to get help, or did not feel support from peers.

In the second hypothesis, I also predicted that fraternal values would not differ by facility. Consistent with the literature on the influence of sororities and fraternities on member values (Davidson & Bauman, 2019; Long, 2012b), the results of this study affirmed the perception that organizations can positively affect a member's personal beliefs and standards. As expected, participants across all facility and council types rated their chapter's effect on fraternal values similarly. More specifically, students reported their organizations positively influenced members' sense of integrity, academic success, ability to cope with problems and develop positive relationships with others, sense of confidence, and commitment to serve the community. There were no significant differences in fraternal values between any of the facility types. However, there were significant differences between IFC ($M = 1.27$) and Panhellenic members ($M = 1.38$). A potential explanation for this difference is the wording of the questions on this factor. Each of the nine questions asks the participants to rate their chapter's positive impact on a value or experience. It is unknown whether these values existed prior to joining the chapter for if they did, the chapter's impact may have been minimal. It is also important to note that while significant differences emerged between council types, the ratings on the fraternal value factor questions were favorable across all councils.

Research Question Two

The second research question examined differences in cultural appreciation by facility and council type. Scholarship on the role of culture and subculture in multicultural sororities and fraternities demonstrates the significance of students' ethnicity in their sense of belonging, (Garcia, 2019), social identity (Tran & Chang, 2013) and engagement in the local community (McCoy, 2012). It was not possible to

determine the interaction of councils based on facility type, as there were no NPHC or MGC participants with mega facilities and no MGC participants with moderate facilities. I used a one-way ANOVA to compare differences for all participants with no facility. The third hypothesis was that members of NPHC and MGC chapters would report a stronger sense of cultural appreciation than members of IFC or Panhellenic organizations, regardless of facility type. While I only measured responses for those with no facility, the cultural appreciation ratings did show differences across council types. As expected, NPHC (M = 1.37) and MGC (M = 1.25) participants rated their chapter's positive impact on cultural appreciation more strongly than participants from IFC (M = 1.64) and Panhellenic (M = 1.63). These results are not surprising given the origins of Black Greek lettered organizations and multicultural sororities and fraternities which were created in response to discriminatory practices of historically White groups (Torbenson, 2012). Research shows the "calls," step shows, and pledge "lines" used by Black sororities and fraternities are derived from African traditions (Kimbrough, 2003). Similarly, the stated goals of sororities and fraternities from the National Multicultural Greek Council (NMGC), National Asian Pacific Islander Desi American Pan Hellenic Association (NAPA), and National Association of Latino Fraternal Organizations (NAFLO) note cultural awareness, diversity, and advocacy for social change as organizational values (Beatty, 2015; Tull, Shaw, Barker, & Sandoval, 2018).

While there were significant differences in some outcomes by facility and council type, the effect sizes were small - ranging from 1.8% to 4%. Because the sample size for this study was large, effect size interpretations should be considered alongside those differences. The minimal differences did not yield meaningful variations in scores.

Except for the cultural appreciation factor, where the outcomes of those in NPHC and MGC were stronger than those in other councils, the fraternal values, active intervention, and intervention perceptions were practically similar across all facility and council types. As the results of this study indicated, students with no facility rated their chapter's impact on their experience as favorably as students with moderate, meeting-only, and mega facilities. Therefore, higher education professionals should consider whether mega facilities are worth the cost. The original impetus for sorority/fraternity housing still holds true today. Institutions view these facilities as a cost-effective way to house students because in many cases, the organizations cover the cost of the facility. In this scenario, students pay all housing-related expenses. If experiences are similar across all facility types, why would we put any added expense on the backs of students? By doing this, we run the risk of further separating the "haves" from the "have-nots," further reinforcing privilege and exclusionary practices, and placing pressure on groups to increase membership to generate additional funding.

Strayhorn (2019) addressed cultural appreciation and awareness in his scholarship on belonging. Strayhorn's (2019) research supported previous findings that students involved in student organizations and committees reported a greater sense of belonging than uninvolved students do. For sorority and fraternity involvement, Strayhorn (2019) contends, the same holds true. However, Strayhorn (2019) noted an unanticipated finding from his recent study noting, "not all involvement is good" (p. 152). For some, Strayhorn (2019) stated, involvement made them "more aware of the differences between 'us and them' (e.g., Black and White, rich and poor)" (p. 153). While these differences can

diminish sense of belonging at the institutional level, peer interaction across diverse social identities can contribute to greater sense of belonging, Strayhorn (2019) asserted.

Though the results of this study indicated relatively positive outcomes on cultural appreciation across all council types, sorority/fraternity life practitioners should identify programs to encourage chapters to interact and collaborate with chapters in councils other than their own. This is especially important on campuses where facility types vary by council (i.e. mega for IFC and Panhellenic chapters and no facility for NPHC or MGC). For those in mega facilities who live, dine, and meet together, there is little opportunity for interaction outside of students in their own organization. These interactions are emphasized in Bronfenbrenner's mesosystem (1997) where the relationships among components of the microsystem (between and across chapters, councils, and the institution) are prominent. A sorority/fraternity administrator is at the center of the mesosystem and can improve the campus environment through connections between groups. By creating intentional opportunities for cross-council partnerships, administrators can minimize the real and perceived barriers between groups, promote better understanding of different cultures, and improve a student's sense of belonging.

These data have implications for how funding is allocated and the degrees to which students feel they belong – particularly when (as noted in this study) there are minimal differences in student experiences across facility types. University administrators should be cautious about allowing groups to construct mega facilities just because a student organization has the funds to do so. Large, extravagant facilities further separate groups, highlighting those with financial access and alumni/ae support.

Strayhorn's (2019) assertions about interactions across diverse populations connect with Bronfenbrenner's (1977) explanation on macrosystems, which he described as:

> Carriers of information and ideology that, both explicitly and implicitly endow meaning and motivation to particular agencies, social networks, roles, activities, and their interrelations. (p. 515)

A macrosystem in a college setting encompasses the campus culture and how it influences, supports, or detracts from majority and minority students at the institution. Barber et al. (2015) noted the differences in campus cultures at Historically Black Colleges and Universities (HBCUs) and Predominantly White Institutions (PWIs) and how the "fraternity/sorority community will likely reflect those differing cultures" (Barber et al., 2015, p. 252). Institutional context matters in that the "underlying culture, values, and social norms of the environment" (Barber et al., 2015, p.252) can affect the student experience. While some practitioners may not believe they can influence the macrosystem, Barber, et al., (2015) maintain administrators can be helpful in increasing awareness about larger patterns of cultural norms that may negatively affect marginalized students and student organizations. As an example, mega facilities housing historically White organizations further isolate privileged students from everyone else. Administrators can address these differences by recognizing the issue, promoting change that offers a more balanced approach, and identifying opportunities to change the narrative.

The four factors (fraternal values, active intervention, intervention perceptions, and cultural appreciation) provided valuable information about student outcomes. Moreover, while results indicated minimal differences amongst the facility and council

types, student ratings of their chapter experiences were generally positive for those with mega, moderate, meeting-only and no housing. These results could provoke thoughtful dialog for university administrators, sorority/fraternity advisors, and students who wish to renovate, expand, or build chapter facilities. Specific needs and interest assessments could produce valuable information on whether costs of such facilities could prohibit students from joining or cause current members to drop out.

Limitations

There are limitations of this study that are important to note. Though this study assessed the relationship between sorority/fraternity facilities and a member's experience, it did not capture if/how these spaces mattered to students or the specific ways their experiences differed within those environments. Additionally, though participants of the study responded favorably about their chapter experience across all facility types, one may assume participants could afford the costs of membership and the chapter facility (as applicable). We cannot know whether financial requirements prevented those interested from otherwise joining. Finally, the data were nested (by chapter and by institution) and, as such the institutional and chapter differences likely contributed to the variance and probability of Type 1 errors.

Other limitations may have affected the results. This study measured student experiences based on the type of facilities owned, leased or used by their chapter but did not assess if the participant completing the survey lived in that facility at the time the survey was completed or at any time during their membership in the chapter. Therefore, a drawback of the study was the inability to differentiate between the various experiences of those living versus utilizing the facility. There were also several limitations of the

FSES instrument. Of the 24 questions evaluated for this study, 14 were measured on a five-point scale and 10 were measured on a six-point scale. The questions using the six-point scale related to intervention perceptions, where a response of "6" meant "unsure." The same six-point scale was used for questions about active intervention, where a response of "6" meant "not applicable." The "not applicable" option has meaning but that meaning was ambiguous and difficult to understand. For example, on the question, "in a typical week, how often have you encouraged others to limit taking recreational/prescription drugs," someone answering "not applicable" may imply they they did not observe the behavior and, therefore had no opportunity to intervene. A "not applicable" response could also suggest they intervened in the past but do not do so during a typical week. Therefore, while I recoded responses to better align the scales, the conversion of that data may have skewed the results.

Most participants indicated their chapter experiences were very positive, calling into question whether social desirability bias was prevalent in this study. It is possible the participants' motivation to influence their responses were based on perceived behaviors deemed important to present themselves or their chapters in a positive light. This concept has been identified as a potential threat to the validity of psychological measures (Crowne & Marlowe, 1960). Because biases in self-reported responses among college students are generally more pronounced in first year students (Bowman & Hill, 2011), comparing responses based on participants' year in school could help identify whether social desirability bias was present in this sample.

Finally, the participant numbers across council types were considerably different. The number of NPHC and MGC participants in the sample dataset was significantly

smaller than the number of participants from IFC and Panhellenic. Additionally, because there were no MGC groups with mega or moderate housing facilities and no NPHC groups with mega facilities, it was impossible to run a complete analysis of facility types by council. This data sample revealed the distinct differences in facility types for historically White organizations and historically Black or multicultural organizations. While NPHC and MGC organizations are traditionally small by design (Torbenson & Parks, 2009), the differing membership (and alumni/ae) numbers and financial support results in fewer resources for these groups. Why does this matter? The lack of physical space for Students of Color was directly linked to student dissatisfaction on some campuses (Northwestern, 2016).

Recommendations for Future Research and Practice

While this study measured differences in student experiences across facility and council type at nine institutions, higher education professionals could take a deeper dive on their own campuses to assess differences amongst the sorority/fraternity students at their institution. Campus professionals of institutions participating in the FSES should consider isolating components of their data to compare specific factors important to their community. For example, in this study, the age and condition of each chapter facility and other factors that could have affected members' experiences (conduct violation(s), number of members, etc.) was unknown. These metrics could be contributing factors in a student's experience. Also, examining differences for those residing in chapter housing versus those utilizing but not living in that space could provide a better assessment of the residential experience and the value of these chapter spaces as a whole. Further analysis of membership status (new member, senior member, officer, etc.), duration of

membership, length of residency, and age/condition of facility could give useful information as well. With those results, practitioners could implement specific educational interventions, and possibly identify alternative residential environments to promote positive sorority and fraternity experiences. Finally, because the facility types for NPHC and MGC participants in this sample were limited, it was not possible to compare experiences across councils. Future research of a campus or campuses where all councils had the same type of chapter facility could better determine the relationship between facility and council on the student experience.

Cost, as exclusionary criteria for sorority/fraternity membership is an issue that needs further exploration. Chapter amenities, particularly mega facilities are costly (Ray & Rosow, 2012) and require significant financial support to construct and maintain. Also, on campuses with residency requirements, oftentimes only the "most privileged students are allowed to opt out" (Armstrong & Hamilton, 2013, p. 63). Publishing the chapter dues, registration fees, and incidentals often scare "away the most economically disadvantaged students" (Armstrong & Hamilton, 2013, p. 63). One might conclude that the addition of facility costs would further exasperate the problem. Therefore, campus administrators should survey their sorority/fraternity membership and potential membership to determine the relevance of cost on decision to join. If it is determined that financial requirements are relevant, administrators could identify opportunities for financial support.

Chapter spaces, whether formal or informal can play a role in a member's satisfaction with the organization and in their sense of belonging within the institution (Dugan & Komives, 2010; Wessel & Salisbury, 2017). This type of environmental

structure is illustrated in Bronfenbrenner's (1997) microsystem, described as a "pattern of activities, roles, and interpersonal relations…in a given face-to-face setting" (p. 307). Campus practitioners should become familiar with chapters and the spaces in which they gather. Sitting in on a chapter meeting in the organization's formal or informal meeting space provides an opportunity to see how the members interact and lead. Attending a cultural event offers a better understanding of the chapter's cultural traditions and aptitude. Visiting with members in their formal dining venue or in campus spaces where they informally gather allows practitioners to view the chapter in a relaxed setting. By engaging with the members in their environment, campus administrators are able to enhance their relationship with the organization's members and leaders and better identify the chapter's strengths and needs.

As noted in chapter four, students with mega facilities intervened in problematic situations more often than those with other facility types. A campus professional with access to specific institutional data could determine if participants with high ratings on these questions represented chapters that hosted social events in their facility and if so, could create educational opportunities to help the chapter minimize risks. Additionally, further analysis should be conducted to determine if there is any correlation between those with positive intervention beliefs and those who actually intervened. Because students are more willing to intervene when they know how to get help and feel supported by peers to do so (Bennett, et al., 2013) campus administrators should consider tailoring educational programming around these points. Through leadership retreats, new member meetings, and chapter workshops, programs on effective intervention strategies could improve members' comfortability to act in times of need.

This research study was not a causal comparison. Future studies could more directly measure how a chapter facility affected a student's experience through questions about the amount of time spent at the facility, nature of time spent (for meetings, meals, studying, sleeping, etc.), and satisfaction with those experiences. Additional analyses on member grades, chapter and institutional retention, and more could inform the benefits or detriments of different facility types. Further, controlling for institution type (private versus public; size of sorority/fraternity student population, etc.) or reviewing responses between campuses where facility types are the same by council could further strengthen the results. Finally, the low representation of NPHC and MGC members in the sample substantiates the need for additional research on these organizations as well as engagement strategies to support these students in meaningful ways. Practitioners must develop strategies to correct real and perceived division amongst council types. Community-wide programs and committees consisting of membership from all councils allows for intergroup dialogs and the potential for improved relationships.

One of the primary objectives of this research was to inform higher education administrators of the sorority/fraternity member experiences across facility types. Institutions considering different facility options should ensure current and future offerings meet student needs, enhance the student experience, and are reasonably equitable for students in all councils. Also, while this study assessed formalized chapter spaces, further research could examine the roles of informal places that are meaningful to chapter members.

As administrators review the outcomes of this study and determine how to make use of these results on their respective campuses, I offer the following questions for consideration:

- How can institutions assist student organizations without facilities who need space for storage of ritual materials, chapter paraphernalia, etc.?
- How can practitioners better recognize groups that do not have facilities? Are there spaces on campus to publicly display photos, organization crests/mottos, and letters?
- Are there additional engagement opportunities we can create for groups with mega or moderate facilities to ensure they are interacting with chapters/councils outside of their own (i.e. cross-cultural engagement)? This becomes especially important in one's work to improve a group's cultural competency.
- In what ways can administrators assess the member experience and compare results against the stated values of each organization? If the values and experiences do not align, what programs and trainings can practitioners develop or modify to strengthen the congruency between these elements?
- Where might informal campus spaces for chapter gatherings exist and how can administrators advocate for access? How can we measure student experiences to determine if engagement in those spaces improves a student's sense of belonging? Examples might include dining areas, residence hall lounges, classroom buildings, and outdoor venues.
- How can chapters with meeting-only, moderate, or mega facilities make better use of these spaces to enhance the member experience?

Summary

The purpose of this study was to assess sorority and fraternity member experiences across facility types. Previous studies on sorority/fraternity facilities focused primarily on housing and the physical environments where learning may occur (Blackburn & Janosik, 2009; Long, 2014; Morrettes, 2010; Vetter, 2011). Because growth may also take place in informal spaces (Campbell, 2017), students in chapters without physical facilities can thrive through positive engagement with other members.

This chapter covered the results, conclusions, and limitations of this study. Additionally, I recommended opportunities and considerations for future research and practice. As predicted, there were no significant differences between sorority/fraternity members' values across facility type. However, there were differences in cultural appreciation, intervention perceptions, and active intervention. Oldenburg (1989) found that houses do not make a community – even if appropriately designed and furnished. Because experiences of sorority and fraternity students in this study were generally positive, regardless of facility type, campus administrators, chapter leaders, and (inter)national sorority/fraternity organizations should conduct an honest assessment of student needs and potential benefits before spending excessive money on facility construction.

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Appendix A. Auburn University Institutional Review Board Approval

From:	IRB Administration
To:	Haven Hart
Cc:	Crystal Garcia
Subject:	AU IRB #19-406 D Hart NHSR "Fraternity/Sorority Facilities: Does Type Matter in the Fraternity/Sorority Student Experience"
Date:	Thursday, September 12, 2019 2:39:34 PM

Dear Haven,

The IRB has reviewed your request for the study titled "Fraternity/Sorority Facilities: Does Type Matter in the Fraternity/Sorority Student Experience". The IRB has determined that your project, as described in the submission, **is not** considered human subjects research.

Further documentation for this study does not need to be submitted. If you make any changes to your study that might include human subjects research, contact our office. If you need an official letter regarding this decision, let us know.

Thank you,

IRB Administration
Office of Research Compliance
115 Ramsay Hall
Auburn University, AL 36849
334-844-5966

Appendix B. Fraternity and Sorority Experience Survey

The Center for Fraternity and Sorority Research
Fraternity and Sorority Experience Survey 17-18
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Fraternity and Sorority Experience Survey	
The survey is designed to collect data for institutions to advocate for students and provide necessary resources for the fraternity and sorority community; not to incriminate students in any way. Please answer all questions honestly, as your feedback is valuable and will be used to inform future research.	
1. Select the top three reasons you are a member of a fraternity/sorority:	Academic support Philanthropy and community service Leadership development Career networking Cultural support Home away from home Friendships Social opportunities Legacy and/or tradition
2. I am a: **SKIP LOGIC (skips to Question 5 if they answer "activated initiated member" or "inactive member")**	New member/new initiate (this past semester) Active initiated member Inactive member
The following questions are about your new member education experience:	
3. Please evaluate your chapter's new member education program on the following topics: Organization's history Chapter policies and procedures Founding values Leadership development Personal accountability Time management Campus involvement Multicultural awareness Philanthropy and community service Stress management Sexual misconduct Hazing of new members Alcohol and drug awareness Bystander intervention Brotherhood/sisterhood	Excellent Good Average Fair Poor Don't remember Not Applicable
4. My new member education program was: Organized A valuable experience Respectful of all members Informative	Agree Somewhat agree Neither agree or disagree Somewhat disagree Disagree
The following questions are about your chapter:	

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5. Evaluate your chapter's educational programs/workshops on the following topics: Founding values Leadership development Personal accountability Multicultural awareness Sexual misconduct Hazing Mental health awareness Alcohol and drug awareness Bystander intervention	Excellent Good Average Fair Poor Not applicable
6. In general, the amount of time my chapter spends on the following is: Chapter policies and procedures Time management Financial management skills Learning course material Career development Campus involvement opportunities Philanthropy and community service Sexual health awareness Body image Eating disorders Brotherhood/sisterhood	Too much Right amount Not enough No support provided
7. In general, my chapter: Upholds organizational values Promotes brotherhood/sisterhood Deals with conflict between members Values each members input Helps me to be a better student	Always Usually Sometimes Rarely Never
8. Because I joined my chapter, I received mentoring from (Select all that apply): SKIP LOGIC -(skips to Question 10 if they answer "Did not receive mentoring") Older undergraduate chapter members Greek peers outside of my chapter Chapter alumni/alumnae Professors Chapter advisors Family members Did not receive mentoring	(Select all that apply):

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9. Because I joined my fraternity/sorority, I was mentored on the following topics: (Select all that apply) Academic success Leadership within the chapter Participation in other campus activities Leadership in other organizations Career guidance Internships	
10. My chapter experience has positively impacted my: Sense of personal values Sense of integrity Sense of confidence Sense of my own cultural heritage Sense of campus community Academic success (GPA) Ability to cope with problems on my own Ability to become involved in things that interest me Ability to develop positive relationships with others Comfort with people of a different culture/race than my own Comfort with people with other religious and spiritual traditions Comfort with people of a different sexual orientation Commitment to serve the community Commitment to social justice	Agree Somewhat agree Neither agree or disagree Somewhat disagree Disagree
11. Does your chapter have housing for members? SKIP LOGIC (skips to Question 13 if they answer "no")	Yes – On Campus (recognized by my institution Yes- Off Campus (not recognized by my institution) No
INSERT HOUSING QUESTIONS HERE IF THEY ANSWER YES ABOVE	
12. My chapter house/residence is a good place to: Live in Study Hold meetings Socialize Have meals Feel safe	Agree Somewhat agree Neither agree or disagree Somewhat disagree Disagree
13. How often are alumni/alumnae involved in helping the chapter: Assist with intake/recruitment Assist with philanthropy projects Assist with community service projects Network for careers Attend chapter meetings Attend executive committee meetings	Always Usually Sometimes Rarely Never Not applicable

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14. Overall, how valuable has your fraternity/sorority life experience been to your overall collegiate experience?	(Scale) from Not Valuable being a "1" to Very valuable being a "5"
The following questions pertain to issues that may be prevalent in your chapter:	
15. What proportion of your chapter: Uses alcohol Uses recreational drugs Uses non-prescribed drugs	A few members of the chapter Some of the chapter Most of the chapter All of the chapter Unsure Not applicable
16. Are any of the following issues a problem for members in your chapter: Alcohol abuse Recreational drug abuse Non-prescribed drug abuse Body image Eating disorders Discrimination against others Hazing of other members Harassment of other members Sexual harassment Dating violence Sexual assault Physical assault Mental health disorders	Yes No Unsure
The following statements are about alcohol and drugs. The statements are your opinion in the context of your chapter.	
17. In a typical week, how often have you: SKIP LOGIC for last response option (skips to Question 19 if they answer "Not applicable" for "Set limits on my own drinking of alcohol") Encouraged others to avoid an unwanted sexual situation Intervened in a harmful situation in your chapter Encouraged others to limit drinking alcohol Encouraged others to limit taking recreational/prescription drugs Set limits on my own drinking of alcohol	Never Once Twice 3-5 times 6 or more times Not applicable
18. In a typical week, how often do you have four or more drinks at a time?	None Once Twice 3-5 times 6 or more times I don't drink alcohol

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19. My brothers/sisters drinking or drug use negatively affect the following: (Select all that apply)	My studying My personal safety My class attendance My sleep My personal well-being
20. In the context of your chapter, please indicate your level of agreement with the following statements: I feel empowered to stand up against behavior I do not think is right at chapter functions. I have the skills to intervene in a chapter situation that may be a harmful experience. I would respect someone who intervened in a potentially harmful situation at a chapter function. I want to be a part of a chapter that intervenes on a member's behalf when the person is unable to. I believe my brothers/sisters will confront me if my behavior needs to be addressed.	Agree Somewhat agree Neither agree or disagree Somewhat disagree Disagree Unsure
21. What leadership roles have you held in the chapter? Check all that apply: SKIP LOGIC (skips to Question 26 if they answer "Have not held a leadership role")	Committee member Committee chair (Non-executive board) Executive board officer Have not held a leadership role
INSERT OFFICER/CHAIRS QUESTIONS HERE IF THEY ANSWER EXECUTIVE OFFICER ABOVE	
The following questions are about your chapter experience as a leader. In general:	**Officer section**
22. My chapter: Makes chapter decisions Sets chapter goals Follows membership/intake policies Develops leadership Participates in philanthropy Is involved in the local community Is involved on campus Teaches founding values of the organization Holds members accountable	 Always Usually Sometimes Rarely Never Unsure Not applicable
23. My chapter has a good relationship with: Non-fraternity/sorority peers Other chapters on campus Governing council (IFC, MGC, NPC, NPHC) Campus fraternity & sorority life staff Campus administration Professors	Always Usually Sometimes Rarely Never Unsure Not applicable

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Community/town Advisory board/graduate chapter Headquarters staff Alumni/Alumnae	
24. My chapter receives advising from the following: Parents Chapter advisor(s) Faculty advisor(s) Governing council (IFC, MGC, NPC, NPHC) Campus fraternity & sorority life staff Campus administration Headquarters staff Alumni/Alumnae	Always Usually Sometimes Rarely Never Unsure Not applicable
25. My chapter alumni/alumnae are involved in helping the chapter: Make membership decisions Maintain the chapter house Assist with chapter programs and events Assist with new member education Provide internships Assist with academic support Assist with mental health issues Assist with holding members accountable	Yes No Unsure Not applicable
26. If your chapter has housing for members, who manages the chapter house? (DISPLAY LOGIC- Display this question if they answer "Yes" to Question 11(Housing question) and "Hold a leadership role" in Question 21)	The University The Alumni/Alumnae Housing Corporation Other
The following demographic questions are intended to segment the results into meaningful categories:	
27. What is your classification in college?	Freshman Sophomore Junior Senior Graduate student
28. What is the highest level of education completed by either of your parents or those who raised you?	Did not finish high school High school diploma or G.E.D. Attended college but did not complete degree Associate's degree (A.A., A.S., etc.) Bachelor's degree (B.A., B.S., etc.) Master's degree (M.A., M.S., etc.) Doctoral or professional degree (Ph.D., J.D., M.D., etc.)
29. What is your gender identity?	Man Woman Other gender identity

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	I prefer not to respond
30. How would you define your sexual orientation?	Bisexual Lesbian, gay, queer, or homosexual Straight or heterosexual Don't know I prefer not to respond
31. Are any of the following true for you: Are you an international student or foreign national? Are you a transfer student? Are you a veteran of the Armed Forces? Do you receive a Pell Grant for your education? Are/were any immediate family members in a fraternity or sorority?	Yes No
32. What is your racial or ethnic identification? Select all that apply.	American Indian or Alaska Native Asian Black or African American Hispanic or Latino Middle Eastern or North African Native Hawaiian or Other Pacific Islander White or Caucasian Other ethnicity
33. Please share anything else you would like us to know about your Fraternity and Sorority experience. [text box]	

Appendix C. Sample Email to Institutions Participating in 2017-2018 FSES Survey

From: Haven Hart
To: hettinger@geneseo.edu
Cc: cfsr@indiana.edu; Maynen, Dawn
Subject: Dissertation Data, FSL housing
Date: Friday, October 4, 2019 1:22:00 PM
Attachments: image001.png
image002.png
IRB Exemption Approval. HHart. 9.2019.pdf
IRB Exemption Request HHart 9.6.2019.pdf
FSES data by housing and council type.xlsx

Dear Bethany:
I called your office earlier but decided it may be easier to communicate via email. If you prefer to discuss via phone, please feel free to call me at the numbers listed below.

I am collecting data for my doctoral dissertation on fraternity/sorority facility types and their relationship to a member's experience. This research is being conducted under the direction of Crystal Garcia, Ph.D., Assistant Professor, Administration of Higher Education and Committee Chair. The data from the 2017-2018 *Fraternity and Sorority Experience Survey* will be utilized with identifiers (student name, institution name, chapter name) removed from the final data set.

Because SUNY Geneseo fraternity and sorority members completed the 2017-2018 survey, I am hopeful you can provide information about chapter housing/facility types the year the survey was taken (2017-2018). Once I collect specific information for each participating institution, Dawn Maynen, FSES administrator will code the data by housing and council type. Again, no identifiable information will be used. Also, I will be happy to share the results once collected.

Attached are:

- IRB Exemption Approval documentation
- IRB Exemption Request (explains purpose of survey and how I will use the data)
- Excel template for you to use to complete this request (I included Auburn's FS facility data as an example)

If you have specific questions, please call me at 334-844-5751 (office) or 334-703-2907 (cell).

Thanks in advance for your help!
Haven Hart

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