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An Examination of Graduate Students' Knowledge of Diversity and Multicultural Awareness as a Catalyst for Becoming Culturally ResponsiveLeaders

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Abstract:

Aspiring principals are required to develop an understanding of cultural and diversity awareness as well as culturally responsive practices to best meet the needs of their teaching staff and students. The objective of this descriptive, quantitative study was to gain insight into principal candidates' knowledge of diversity and multicultural awareness as a catalyst for becoming culturally proficient leaders. One-hundred principal preparation candidates enrolled in an Educational Leadership Diversity course completed a pre- and post- Knowledge of Diversity Survey to determine their perceived knowledge of cultural and diversity awareness before and following taking the course which featured substantial diversity and cultural proficient curriculum. In addition, each of the 100 students completed a final reflection. The data were analyzed using simple descriptive statistics and the identification of themes from the student reflective responses regarding their impact to lead and support their staff as a culturally responsive leader. Study results found that while students' perceived knowledge of diversity increased following completion of the course, they still thought they lacked knowledge of minority cultures, LGBTQ culture and oppression theory after completion of the course.

Introduction

The role of a school leader is complex, challenging, and vital to the realization of an equitable and just society. Nationwide, educators are challenged by the changing demographics of students in classrooms across the United States, due in part to immigration patterns and greater mobility among and between regions (Hernandez-Mekonnen & Konrady, 2019; Jensen et al., 2021). Today's educators can no longer assume that schools will have the same homogeneous students from a dominant culture with little racial, ethnic, linguistic, or socioeconomic diversity as when they attended school.Research supports the need for educator preparation programs to include diversity and multiculturalism in the preparation of educators (Marchitello & Trinidad, 2019). This is necessary because the student body of America's schools reflects a growing mosaic that is diverse racially, culturally, linguistically, and religiously. Educators working with diverse populations should be culturally competent, sensitive, responsive, and effective at working with these students and their families.

University Educational Leadership programs are tasked with preparing and empowering aspiring school leaders with the knowledge, skills, and dispositions to promote the success of all students. It is imperative that principals in multicultural school settings are prepared to lead, advocate for, and reform policies and curriculum program for students who are typically marginalized in these contextual settings (Riehl, 2010). Aspiring principals who are not prepared with the knowledge, skills, and dispositions that are needed to lead in today's culturally diverse schools will continue to create inequities and disparities between students and widen the opportunity gap. Effective culturally competent educators are described as thought provoking, engaging, empowering, student-centered, and culturally responsive. They emphasize critical thinking, creativity, and integration in student learning. In addition, they consider

themselves continuous learners, who are self-aware producers of knowledge and work to home their comprehensive knowledge of current scholar ship and best practice learning strategies (Spradlin, 2009). The purpose of this descriptive, quantitative study is to examineaspiring principals' perceptions of what they know and think they know about diversity and cultural awareness and how they can attain, maintain, or adapt belief structures to impact their ability to lead and support their staff as a culturally responsive leader.

The following questions guided this research:
1. What do educational leadership principal candidates know about cultural and diversity awareness?
2. How do educational leadership principal candidates perceive their impact to lead and support their staff as a culturally responsive leader?

Review of Literature

Studies evaluating knowledge of diversity and multicultural awareness were reviewed based on their significance to the study. Both empirical research and recommendations from the literature are included in this review.

Changing Demographics

The demographic shifts across the United States have changed the cultural makeup of schools and as a result schools are rapidly becoming culturally and linguistically diverse. Colby and Ortman (2015) reported that by 2044, the non-Hispanic White population will be less than 50% of the nation's total population and by 2060, nearly one in five of the nation's total population is projected to be foreign born. By 2044, the United States is project to become a plurality nation. While the non-Hispanic White population will still be the largest, no race or ethnic group is projected to have greater than a 50 percent share of the nation's total.

Hussar and Bailey (2020) in The National Center for Education Statistics projections(NCES) reported that white studentswill make up 43.8% of public schoolenrollment in 2028, a 7% decrease between 2016 and 2028; Hispanic enrollment is predicted to continue to grow, reaching 27.5% of public school enrollment by fall 2028, an 8% increase between 2016 and 2018. The percentage of public school students who were Black decreased from 16.8% in 1995 to 15.2% in 2017 and is projected to remain at 15.2% in 2028. Between fall 2016 and fall 2028, the percentage of public school students who were Asian/Pacific Islander is projected increase 20%. The enrollment of students who are American Indian/Alaska Native students account is projected to decrease 7% between 2016 and 2028. An increase of 51% between 2016 and 2018 for students who are two or more races is projected.

Irwin et al.(2021) reported on the condition of education and offered a snapshot of the cultural diversity of educators in our nation's elementary and secondary public schools in the U.S. Department of Education's Report on the Condition of Education. Despite the fact that schools in the United States are currently serving increasingly non-White, multicultural populations, the most recent nationally representative survey of teachers and principals revealed that 79% of public-school teachers identified themselves as white, 9% were Hispanic, 7% were black, 2% were Asian, 2% were of two or more races, and 1% were American Indian/Alaska Native; additionally those who were Pacific Islander made up less than 1% of public school teachers(Irwin et al., 2021).In 2017–18, about 78 percent of public school principals were White, 11 percent were Black, and 9 percent were Hispanic. Those who were of Two or more races, Asian, and American Indian/Alaska Native each made up 1 percent of public school principals, and those who were Pacific Islander made up less than 1 percent of public school principals. Currently, the populations of teachers and educational leaders do not match the demographics of students in American schools. The majority of teachers and leaders are English-speaking, middle-class, white Americans.

Diversity Education

Diversity education is central to helping educators understand their beliefs as they interact with the diverse children and families in communities across the United States.According to King et al. (2010), the creation of students' diversity management competency may increase by participating in a practical diversity course, which according to Avery and Thomas (2004), is alevel of awareness and knowledge of

how culture and other aspects of one's group identity are crucial to an informed professional understanding of human behavior in and outside of work and the interpersonal skills necessary to effectively work with and manage demographically diverse individuals, groups, and organizations. (p. 382).

Fujimoto & Hartel (2017) maintained that the nation's workforce is becoming more diverse, and the gap between leadership and workers' demographic representation is widening, causing tension. The researchers created an advocate for using the "organizational diversity learning framework". This framework allows for meaningful participation and input from workers of different levels in the organization, identities, and standings. Inviting all to provide input allows everyone to feel their voice is heard and valued and helps to avoid elitist organizational decisions. It also provides opportunities to put learning into action and transfer the learning into the organization's daily operations. According to King et al. (2010), research and practice need to apply frameworks supported by research by integrating previously isolated areas of diversity training. They noted that trainers and educators most likely purposefully or unwittingly use themes now common in journals or are inexperienced in these areas and would gain from voicing the link between diversity education and training. Their research also found that evaluating the effectiveness of this training is limited. They maintained that effectiveness is measured by improvements in trainees' attitudes, behaviors, knowledge, and organizational outcomes. The researchers found most training was mainly conceptual and subjective discussions mixed with personal observations and anecdotes.

King et al. (2010) extracted themes from work in diversity education, noting that quality diversity education is set apart in the attention to self-evaluation to develop awareness and understanding, feedback, and active learning. Using these components may lead to the behavioral and attitudinal changes needed to make positive organizational changes. Also noting that the instructor should have a minimum level of competence, such as an advanced degree, to lead the instruction because it shows at least a level of knowledge and expertise in the topic. It also makes a difference if multiple trainers are used and represent both the majority and minority involved in the training topic and the method used to teach and engage the trainees in training, according to (Smith et al., 2021).

Smith et al. (2021) reported that best practices in diversity training design and facilitation have four significant themes. The first is for the message in training not to subvert the diversity training must be emulated throughout the entire organization, especially in the leadership (Bezrukova et al., 2016; Cheng et al., 2019; King et al., 2010). More effective training sessions are full-day training and several sessions rather than a short one-time session. Researchers have noted that trainees' attitudes are more likely to change if the training occurs over a long period (Carvalho-Grevious & Sabbath, 2017; Cheng et al., 2019). The training should also contain an assessment component to measure effectiveness (Smith et al., 2021).

Cultural Competence

Cultural competence of school leadership is vital to school success. More importantly, it is vital to the success of teachers, staff, students, and families.Cultural competence is defined as "…a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enable them to work effectively in cross-cultural situations" (Cross, et al., 1989, p. iv). This definition was expanded by Lee et al. (2007), maintaining cultural competence as "The ability to work effectively across cultures; it is a set of congruent behaviors, attitudes, and policies that come together in a system. Cultural competence means understanding one's own identity and values and how this influence one's perceptions. Cultural competence requires knowledge, skills, experience and the ability to transform these into practices which result in improved services" (p.3).

Cultural competence skills are not considered innate but something that develops over time. To develop cultural competence skills, an individual must reflect on his or her own biases and prejudices. Being a culturally competent individual means considering how people from cultures other than one's own make judgments, behave, interact, think, and perceive their world and empathize with them. The researchers noted that cultural competence has four elements: attitude, awareness, skills, and knowledge

(Martin & Vaughn, 2007, Cross et al., 1989). Cultural competence goes beyond being open-minded but involves a desire to engage with the mind as well as the heart.

Taking the definition of cultural competence from an operational standpoint, school leaders who are culturally competent train their faculty and staff in cultural familiarity and value the diversity of others by accepting students' different cultural backgrounds, respecting their different ways of interaction, and recognizing their different traditions and beliefs. In addition, they provide support for faculty development of values, norms, organizational cultures, diversity, and beliefs that enable the success of the entire school organization, especially students (Khalifa, 2018). As a leader, it is necessary to lead the organization by reviewing policies and procedures, other individuals' attitudes, and values, including how they operate in the system, mission and visions statements, and cultural competency levels. Cultural competence is a continuous process and journey of development and growth; the organization and individuals constantly develop and respond appropriately (Khalifa, 2018).

CulturallyResponsive Leadership Practices

School leadership has been a focus of research for many years. School leaders are not involved with students' day-to-day learning; however, they are difference makers in terms of student achievement and set the climate and culture on the campus in which each student learns. Research by Walker and Shuangye (2007) maintains that a leader must be ongoing learners to be culturally responsive. They must understand culturally diverse issues and be familiar with the behavioral, values, and belief differences of the staff, students, and others that comprise the school community. Brown et al. (2021) suggested there are many rationales for the need to facilitate equity of participation in a culturally diverse education system, such as preparing students for the work world, providing the best conditions for all to develop, and assuring social support diversity personally. Creating this environment is good in theory; however, the context in which school leaders operate is influenced, to an extent by how the leader can work in practice coupled with the supports provided, training, and community influences. Leithwood, Seashore, Anderson, & Wahlstrom (2004) discussed that teaching has the most significant impact on student achievement but a strong relationship between leadership and student achievement. Education has tried with varying success levels to promote and maintain systems and processes to integrate students into the school's daily life to feel like they belong and achieve a similar level as their classmates.

Johnson (2014) defined culturally responsive leadership concerning Gay's (2018) notion of culturally responsive pedagogy. The leadership philosophies, practices, and policies of culturally responsive leaders create inclusive schooling environments for students and families from culturally diverse backgrounds (Johnson, 2006). Culturally responsive school leadership can identify needs for all students in their schools (Gay, 2018); they possess the knowledge, skills, and dispositions to respond to, embrace, and ultimately celebrate the cultural multiplicity of all students. Additionally, these leaders use practices, actions, mannerisms, procedures, and discourses that influence the school climate, community, teacher efficiency, and student outcomes. Gurr (2015) noted the characteristics of a strong leader were benevolence, humility, honesty, openness, resilience, and respectfulness. Brown et al. (2021) added to this discussion to be culturally responsive; a leader needs to possess the ability to empathize with those who are alienated because of being different or at risk and create systems and processes to counterbalance the inequities that students face in their schools. These leaders use instructional and distributed leadership while ensuring that all voices are heard and incorporating cultural norms and values, ensuring that instructional practices meet the needs of the culturally diverse students on the campus.

Schools must have practices or systems that highlight high expectations for student achievement while incorporating the students' cultural knowledge, history, and values into the school curriculum. Khalifa et al. (2016) indicated that culturally responsive leadership is needed in all school settings, including the not highly populated with minoritized students. In addition, Khalifa et al. (2016) clarify not all students of color are minoritized. Schools that can benefit from culturally responsive school leaders have populations of non-majority, marginalized, or oppressed students characterized by elements such as differences in language, literacy, religion, beliefs, manners, mental ability, thought processes, looks, and expressions. Culturally responsive leadership suggests that the leader is aware of the cultural issues in education and can respond to them positively. Culturally responsive education leaders have the skills to

create school environments and curricula that respond successfully to all students' education, social, political, and cultural needs (Johnson, 2006; Khalifa et al., 2016).

Day (2020), in the International Successful School Principalship Project (ISSPP) Report, noted it is difficult to label principals who use a particular leadership style; however, there were four core leadership practice themes: setting direction, developing people, and leading change, and improving teaching and learning. This research also noted additional practices of building trust, building a safe and secure environment, being visible in the school, use of strategic problem solving, coalition building, articulating a set of core ethical values, introducing effective forms of instruction to staff, and the promotion of equity, care and achievement are needed to be successful. As with other leadership styles, culturally responsive leadership incorporates features of anti-oppressive leadership (Gooden & Dantley, 2012), transformative leadership (Dantley & Tillman, 2010; Shields, 2010), and Socially Just Leadership (Theoharis, 2007). Although culturally responsive leadership conveys and shares similar connotations with transformative and socially just leadership, it refers to school leaders who have previously developed cultural competence through cultural awareness of the students they serve (Brown, 2004). Culturally responsive school leadership comprises advocacy for non-majority, marginalized, and oppressed students, but this can be seen further in socially just leaders' knowledge, skills, and dispositions (Khalifa et al., 2016).

Educational leaders need to take a new approach and model culturally responsive behaviors, practices, and competencies. There has been a significant impact on schools due to increasing migration patterns, causing the need to make them more ethnically, religiously, culturally, and linguistically more diverse. School leaders now need to put more systems and processes to ensure equity. Leaders need to create in both students and faculty a critical consciousness that challenges inequities in the larger society and empowers students and parents from diverse racial and ethnic communities (Johnson, 2007). Our unique cultural experiences and backgrounds impact our learning and communication in various ways. This is also true for leaders, teachers, students and the community they serve. To teach a diverse group of students, multicultural leadership practices among leaders should become as ubiquitous as cultural competence in staff they serve. Discussions of cultural differences can cause some initial discomfort. If each educator explores their own prejudices and cultural experiences and using a reflective process to change, this discomfort diminishes.

Methodology

The focus of this descriptive, quantitative study was to examine online master's educational leadership candidates' perceptions of what they know and think they know about diversity and cultural awareness and how they can attain, maintain, or adapt belief structures to impact their ability to lead and support their staff as a culturally responsive leader. In the spring and fall of 2021, educational leadership candidate pre- and post- accessed themselves using *The Diversity Knowledge Survey* to determine their perceived knowledge of diversity and multicultural awareness. This study also provided the foundation for determining how their perspectives may impact their practices as leaders. Based on the results, the candidates could understand how their perspectives may or may not have an impact on how they lead and support their staff.

Content of the Course

Students in the Leadership for Diverse Learners course were exposed to extensive literature within the field of diversity studies. *Multicultural Education in a Pluralistic Society* by Donna Gollnick and Peter Chinn (2021) was the textbook used in the course. Additionally, students were exposed to over 27 articles related to multicultural education, weekly asynchronous professor lectures and synchronous web conferences. In order to promote critical reflection, culturally relevant teaching, and transformative learning, students were expected to complete assignments aimed at helping them internalize the knowledge, skills, and dispositions needed to be a culturally responsive leader.

Participants, Settingand Data Collection

The research population that was targeted for this study was 1057 graduate students enrolled in a five-week online diversity leadership course in the principal preparation program in the College of Education Educational Leadership during the fall and spring semesters of 2021 at a regional institution in

Southeast Texas. The participants for this study were 100 randomly selected students from the diversity leadership course. The demographics of the participants were similar to the overall online student population of the university. Candidates enrolled in the five-week online course completed the *Diversity Knowledge Survey* during week one and again in week five. Additionally, in week five, students were asked to reflect on their pre- and post-responses.The submission of the *Diversity Knowledge Survey* was a course requirement; therefore, participation was required. The demographics of the student participants were similar to the overall online student population. Descriptive statistics of participant responses wereused to analyze the collected data. The participants reflective responses were examined to identify major themes.

Instrument

The Knowledge of Diversity Survey (Appendix I), adapted from the Multicultural Knowledge Test (Pohan &Agilar, 2001), was used to measure graduate principal preparation students' perceived levels of knowledge of various diversity concepts including: oppression theory, history of oppression, disparity, race, gender, sexual orientation, ability, social class treatment, cultural values, and history of experience in the United States and schools. The survey identifies the cultural and diversity awareness imprints that may affect cultural self-awareness and discover differences and similarities between themselves and members of other cultural groups. The 37 items were rated on a 7- point scale ranging from 1 (None) – having no knowledge of the diversity concept to 7 (Extensive) – having extensive knowledge of the diversity concept. Content validity of the diversity survey used to assess participants' knowledge of diversity educational outcomes was assessed by four experts in the fields of diversity, education,and psychometrics who verified the representativeness, importance, and quality of the items in the scale for the purpose of measuring levels of multicultural knowledge. Internal consistency reliability for the survey is very high, alpha = .95 (Spradlin, 2009).

Data Analysis

Descriptive statisticsof participant responses were generated and reported to address research question one. The mean scores and standard deviations for the items that the candidates reported as measured by *The Diversity Knowledge Survey* are summarized in Table 1. Research question two focused on the participants perceptions of their impact to lead and support their staff as culturally responsive leader. To address this question, data from the week five reflections were analyzed using basic interpretive qualitative approach to identity themes. Merriam and Granier (2019) described interpretative qualitative research as the construction of meaning. It can be used when an instructor is interested in how students make meaning of a situation or phenomenon. Analysis is of patterns or common themes and the outcome is a rich descriptive account that refers to the literature that helped frame the study (Merriam & Granier, 2019).

Findings

Overall, the average pre-self-report of knowledge of diversity was a 3.6 (see Appendix 2) on the37-itemscale ranging from 1-7 with 4 being labeled as average during week one in the course and a 5.2 on the post- self-report knowledge of diversity surveyed during week five in the course.Examination and comparison of individual self-reported perceived pre- and post-course knowledge of diversity items revealed the specific areas where students felt more knowledgeable after taking the course. Additionally, students reflected on their perceived impactto lead and support their staff as a culturally responsive leader.

Pre-Perceived Knowledge Survey Results

There were no responses with a mean ranging from 1.0 to 2.0 (this indicates no or low levels of knowledge). The lowest mean responses between 2.3 and 2.9 (minimal knowledge)related to Asian American culture, PL 94-142, LGBTQ issues, Inter-cultural communication, oppression theory and multicultural curricula transformation (Q8. Q12, Q21, Q22, Q23, Q25). Items with mean responses between 3.0 and 3.9 (lower than average)were reported on items pertaining to multicultural teaching, Latino and Native American culture, educational tracking, multicultural education reform, racial identity, community resources, school funding, heterosexism, and disability culture (Q1, Q4, Q9, Q10, Q11, Q19, Q20, Q24, Q33, Q35) as well as items related to religious practices, bilingual education, women's culture, IDEA and ADA, affirmative action, gender bias, Title IX, Second language acquisition and oppression

(Q14, Q16, Q26, Q27, Q28, Q29, Q30, Q31, Q32, Q37). The remaining mean responses ranged from 4.1 to 4.9 (average knowledge). There were no mean responses above 4.9 (extensive knowledge) on the pre-perceived knowledge survey.

Post-Perceived Knowledge Survey Results

Examination of post-perceived knowledge of diversity items revealed increases in all areas for the survey for most participants. All post-perceived knowledge means responses increased. The lowest pre-perceived mean responses between 2.3 and 2.9 (minimal knowledge) were items related to Asian American culture, PL 94-142, LGBTQ issues, Inter-cultural communication, oppression theory and multicultural curricula transformation (Q8. Q12, Q21, Q22, Q23, Q25). These items increased to meanresponses of 4.14to 4.86 (average and slightly above average) on the post-perceived knowledge survey. The lowest mean responses (4.14 to 4.79) from the post survey were reported on items related to Latino, Asian American and Native American cultures, PL 94-142, LGBTQ, inter-cultural communication, oppression theory (Q4, Q8, Q9, Q12, Q21, Q22, Q23). The highest mean responses of 5.51 to 5.85) related to special education issues, systemic racism in public schools, prominent people of color, low-income life circumstances, effects of privilege on equity, teaching diverse student populations, and conducting effective advocacy for educational equity (Q3, Q7, Q15, Q17, Q34, Q36, Q37).

Items that measured students' perceived awareness of educational tracking, multicultural education reform, PL 94-142, racial identity development, LGBTQ, oppression theory, school funding practices and multicultural curricula transformation (Q10, Q11, Q12, Q19, Q21, Q23, Q24, Q25) showed the most significant gains. Extensive course materials, activities and lectures were devoted to these topics. Average was explained in the survey directions to mean students could discuss the diversity topic stated in the item. By their own report, these students rated themselves consistently below average (2.3 to 3.1) on all these items during week 1 of the course and above average (4.63 to 5.43) on all items during the final week of the course. None of the respondents believed they had "extensive" knowledge of each item prior to taking the course which meant they believed they could not debate, explain, or lead a discussion on the diversity topics stated in each item on the survey. Table 1shows the comparison of selected individual item mean scores by pre- and post-knowledge survey results.

Themes from Post Knowledge Survey Reflections

To develop a broader understanding of the candidates' perception of their impact to lead and support staff as a culturally responsive leader and to address research question two, the researcher reviewed and analyzed the week five reflective responses to identify major themes. Three themes were identified planning for action, continuous learning/growth, and leadership skills.

Planning for Action

In order to transform our schools, school leaders must lead the charge in developing awareness that will educate, promote tolerance, and foster an appreciation of diversity in the school culture.In a report by the Leadership Academy (2020), the authors stated that being a culturally responsive leader requires practice and a set of actions to guide them to meet students and teachers where they are. These actions should be a natural alignment of the school mission, vision, and goals. A strong foundation of cultural understanding helps school leaders have a personal understanding of the impact of culture on their own identity and the ways in which it shapes their approach to their professional practice. In addition, culturally responsive leaders engage in ongoing professional learning to ensure all students have access to culturally responsive teaching and learning environments.

Participant One noted that they were committed to the ongoing professional learning as an action step in becoming "more knowledgeable about disability culture, LGBTQ culture and history, and bilingual education. The more familiar I am, the better I can champion for all children." Participant Two reported, "there is no one-size-fits-all approach to education and treating students equally is not best practice. Schools have a duty to ensure that students are treated equitably and given the tools necessary for their success. Understanding the role that culture plays in students' lives will help me be the most effective teacher (and eventually leader) that I can be."Regarding the alignment of the school mission, vision, and goals, Participant Three stated, "Diversity and equity in schools is a crucial part to maintaining the school's overall health and success. I do believe that a higher emphasis on the topic needs

to be raised so that awareness is created and all stakeholders within a child's education are educated to address the racial and social injustices that occur daily." When it came to a strong foundation of cultural understanding, one student indicated their shock at the lack of knowledge by stating, "It is amazing how much you think you know when, actually you know very little on a subject. I was appalled at my lack of knowledge on some of these concepts. I was further appalled that at one point, I actually thought I knew something on these concepts. This was very eye opening and a learning experience."

The responses from the students indicated that their perceptions regarding leading and supporting their staff as a culturally responsive leader suggested that they need to pay attention to their own practice and guides to assist them in action plans to ensure they are effective culturally responsive leaders.

Continuous Learning/Growth

The Leadership Academy (2020) identified professional learning as a key action for school leaders becoming culturally responsive. Culturally responsive school leaders are those engaged in continuous learning and growth opportunities necessary todevelop the skills and dispositions they need to be effective in leading and supporting staff, students, and community. They pursue personal professional learning opportunities that align the school with the mission, vision, and goals for their specific student population. School leaders should build competencies in equity, equality, social justice,and culture competence through leadership practices.

The participants became aware of the importance of continuous learning and growth.They became aware of their own culture identity and of their own mental models concerning culture and diversity during the course. Participant Four stated, "I found myself growing in several areas through what I learned in this class. I grew in my racial identity development and my ability to see the inequalities for the non-dominant culture." Participant Five acknowledged, "The diversity survey brought to light several areas of diversity that I believed I knew that I had no fundamental understanding of how things in that area worked. This course and the previous four weeks have put me in a place that required me to dig deeper into my ignorance to help facilitate an authentic assessment and improvement. A lack of understanding in areas assessed was due to my assumptions and what I heard from others about diversity."Participant Six reflected, "I previously could not fathom the multitude of topics that need to be addressed as far as diversity in the education system. I now feel fully aware of how much there is to learn about barriers that average American citizens regularly face. The following are topics of understanding that I have grown to be more capable of addressing and as educational leader: low-income life circumstances, racial identity development, and conducting effective advocacy for educational equity.

Leadership Skills

It is essential that school leaders develop culturally responsive leadership skills needed toensure all children and adults receive what theyeach need for them to achieve academic, socialand emotional success regardless of race, ethnicity,language or other characteristics of their identity (The Leadership Academy, 2020). Khalifa, Gooden, and Davis (2016) identified four culturally responsive school leadership behaviors: critical awareness, ensure teachers are and remain culturally responsive, identify and foster an environment that focuses on inclusivity, and engaging students, families, and the community in culturally appropriate ways.

Khalifa, Gooden, and Davis (2016), describe critical awareness as a leader being aware ofself and his/her values, beliefs, and/or dispositions when it came to serving a diverse population of students. They must be profoundly aware of inequities that are barriers to student success. Participant Seven demonstrated critical awareness by stating, "As a building leader I have to be conscientious of where others, staff, are at with respect to their own cultural. A success for me in this course has been to reflect on my own cultural identity journey as I have been working on it since 2018. I am finding it increasingly easier to sit in my discomfort as I unlearn a lot of my dominant culture experiences and privileges."

Participant Eight discussed the responsive leadership behavior of ensuring teachers are and remain culturally responsive. They noted "School members and leaders must ensure that all students feel a sense of belonging in all schools. As the student population grows, teachers need to become more knowledgeable about their students' different cultures, genders, and social economics." School leaders

must develop strategies for ensuring the development of teachers who are not, and may even resist becoming, culturally responsive (Khalifa, 2013).

The third behavior discussed by Khalifa, Gooden, and Davis, (2016) is to identify and foster an environment that focuses on inclusivity. This refers to the ability of the school leader to leverage resources to identify and foster an environment that does not allow inequities. Participant Nine advocated for emphasizing awareness. They stated "Diversity and equity in schools is a crucial part to maintaining the school's overall health and success. I do believe that a higher emphasis on the topic needs to be raised so that awareness is created and all stakeholders within a child's education are educated to address the racial and social injustices that occur daily."

The fourth behavior highlights the ability of the school leader to promote students, families, and communities in ways that advocate for culture. Participant Nine's comments aligned with this behavior, "Today's students and families are becoming more and more diverse with more complex social issues than ever before. Our students have changed and as educators we must change how we teach, honor, and represent them. The culture and experiences of our students and families shape their attitudes, values, beliefs, traditions, languages, and perceptions. We must take all of these differences and use them to make our educational culture richer and more meaningful for all of our students."

Discussion

The Knowledge of Diversity Survey was used as a means for one hundred educational leadership candidates to examine their cultural and diversity awareness after completing a five-week online graduate diversity course. The study also was designed to gain insight into their knowledge as how they could attain, maintain, or adapt their belief structures to impact their ability to lead and support their staff as a culturally responsive leader. The two research questions were as follows:

1. What do educational leadership principal candidates know about cultural and diversity awareness?
2. How do educational leadership principal candidates perceive their impact to lead and support their staff as a culturally responsive leader?

As shown in Appendix 2, study results found the candidates' perceived knowledge of cultural and diversity awareness increased following completion of the course. However, as indicated in Table 1, their measured knowledge of minority cultures, LGBTQ culture and oppression theory was average after completion of the course.

The three identified themes from the candidates' reflections – planning for action, continuous learning/growth, and leadership – indicated that the candidates seemed committed to creating an educational environment centered on honoring who students and willing to acknowledge the difficult issues of a culturally responsive leader.The data analysis from the candidates' reflective responses also provided the researchers additional support in emphasizing that administrators in schools should demonstrate inclusiveness, be proficient in the acknowledgement of cultural differences in terms of how each cultural group learns best and understand that cultural discomfort is normal in a diverse society.

Conclusions and Implications

According to the National Association of Elementary School Principals (NAESP) (2018), being a culturally responsive school leader requires working strategically to address issues and opportunities that arise in school environments. The majority of public schoolstudents are students of color. Ninety-six percent of major employers report that it is important that employees be comfortable working with colleagues, customers, and/or clients from diverse cultural backgrounds. These statistics make it imperative that our nation's school leaders not only welcome diversity but understand individuals from different cultures, as well as facilitate an increasingly racially, ethnically, and socioeconomically diverse society and global economy.

This information from NAESP has implications for educator preparation programs preparing future principals. These programs must strive to develop culturally responsive future leaders since these new leaders will be responsible for providing a high-quality education for all students.

Participants in this study indicated that the course had deepened their knowledge and made them aware of their own lack of understanding of cultural responsiveness, equity, and self-awareness. Some

participants noted that although they were familiar with many of the diverse groups in schools, there were also some they lacked the knowledge needed to support these students such as LBGTQ. They discussed learning about the laws to protect students against biases within the institution and providing all students with equity and equal rights. Most importantly, they indicated that they had gained many new insights that will assist them as a leader and make them more culturally diverse.

The survey results from this research provided evidence that when preparing future school leaders, curriculum addressing cultural responsiveness is critical. Recommendations for future research would be to survey these students two years after they have served in a campus leadership role to determine if they are using the knowledge they gained in this course.

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Table 1

Comparison of Selected Individual Item Mean Scores by Pre- and Post-Knowledge Survey Results

Item	Description	Pre-Perceived Knowledge		Post-Perceived Knowledge	
		Mean	SD	Mean	SD
3	Special education issues and services	4.7	1.2	5.68	.87
4	Latino culture, history, and text in the U.S.	3.5	1.5	4.73	1.25
7	Systemic racism in public schools	4.3	1.5	5.6	1.02
8	Asian American culture, history, and text in the U.S.	2.6	1.2	4.14	1.23
9	Native American culture, history, and text in the U.S.	3.2	1.5	4.37	1.28
10	Educational tracking policy and practice	3.2	1.5	5.13	1.13
11	History of multicultural education reform in the U.S.	3.0	1.3	5.15	1.15
12	PL 94-142	2.3	1.7	4.35	1.66
15	Prominent people of color	4.4	1.4	5.55	1.01
17	Low-income life circumstances	4.9	1.4	5.83	1.15
19	Racial identity development	3.4	1.5	5.43	1.23

21	LGBTQ culture, history, and text in the U.S	2.5	1.4	4.67	1.36
22	Inter-cultural communication	2.9	1.3	4.79	1.23
23	Oppression theory	2.7	1.6	4.63	1.35
24	School funding practices related to SES	3.1	1.5	5.28	5.23
25	Multicultural curricula and curriculum transformation	2.9	1.4	4.86	1.3
34	Effects of privilege on equity	4.1	1.5	5.51	1.28
36	Teaching diverse student populations	4.4	1.4	5.85	.96
37	Conducting effective advocacy for educational equity	3.9	1.6	5.6	1.08

Appendix I
The Diversity Knowledge Survey

Directions:
Circle the number which best assesses the extent of your knowledge of each topic:

1:	None	= complete unfamiliarity
2-3:	Minimal	= some familiarity
4-5:	Average	= ability to discuss the topic
7-8	Extensive	= ability to debate/explain/lead a discussion on the topic

MY KNOWLEDGE ABOUT...IS…   **None Minimal Average Extensive**

1. Multicultural teaching philosophy and practices	1	2 3 4 5 6 7
2. African American culture, history, and text in the U.S.	1	2 3 4 5 6 7
3. Special education issues and services	1	2 3 4 5 6 7
4. Latino culture, history, and text in the U.S.	1	2 3 4 5 6 7
5. Civil rights legislation	1	2 3 4 5 6 7
6. Standardized test bias	1	2 3 4 5 6 7
7. Systemic racism in public schools	1	2 3 4 5 6 7
8. Asian American culture, history, and text in the U.S.	1	2 3 4 5 6 7
9. Native American culture, history, and text in the U.S.	1	2 3 4 5 6 7
10. Educational tracking policy and practice	1	2 3 4 5 6 7
11. History of multicultural education reform in the U.S.	1	2 3 4 5 6 7
12. PL 94-142	1	2 3 4 5 6 7
13. ESL programs and ELL	1	2 3 4 5 6 7
14. Religious histories, doctrines, and practices other than your own	1	2 3 4 5 6 7
15. Prominent people of color	1	2 3 4 5 6 7
16. Bilingual education	1	2 3 4 5 6 7
17. Low-income life circumstances	1	2 3 4 5 6 7
18. Social class educational barriers	1	2 3 4 5 6 7
19. Racial identity development	1	2 3 4 5 6 7
20. Multicultural education resources in your community	1	2 3 4 5 6 7
21. LGBTQ culture, history, and text in the U.S.	1	2 3 4 5 6 7
22. Inter-cultural communication	1	2 3 4 5 6 7
23. Oppression theory	1	2 3 4 5 6 7
24. School funding practices related to SES	1	2 3 4 5 6 7
25. Multicultural curricula and curriculum transformation	1	2 3 4 5 6 7
26. Women's history, culture, and text in the U.S.	1	2 3 4 5 6 7
27. IDEA and ADA	1	2 3 4 5 6 7

28. Affirmative action purpose and implementation	1	2 3	4 5	6 7
29. Gender bias in education	1	2 3	4 5	6 7
30. Title IX education guidelines	1	2 3	4 5	6 7
31. Second language acquisition	1	2 3	4 5	6 7
32. Effects of oppression on achievement and career	1	2 3	4 5	6 7
33. Heterosexism	1	2 3	4 5	6 7
34. Effects of privilege on equity	1	2 3	4 5	6 7
35. Disability culture	1	2 3	4 5	6 7
36. Teaching diverse student populations	1	2 3	4 5	6 7
37. Conducting effective advocacy for educational equity	1	2 3	4 5	6 7

Appendix 2
Pre- and Post-Survey Mean Scores and Standard Deviation

Item	Description	Pre-Perceived Knowledge		Post-Perceived Knowledge	
		Mean	SD	Mean	SD
1	Multicultural teaching philosophy and practices	3.5	1.3	5.1	1.0
2	African American culture, history, and text in the U.S.	4.2	1.5	5.3	1.1
3	Special education issues and services	4.7	1.2	5.7	0.9
4	Latino culture, history, and text in the U.S.	3.5	1.5	4.7	1.3
5	Civil rights legislation	4.2	1.3	5.4	1.1
6	Standardized test bias	4.1	1.5	5.3	1.2
7	Systemic racism in public schools	4.3	1.5	5.6	1.02
8	Asian American culture, history, and text in the U.S.	2.6	1.2	4.1	1.2
9	Native American culture, history, and text in the U.S.	3.2	1.5	4.4	1.3
10	Educational tracking policy and practice	3.2	1.5	5.1	1.1
11	History of multicultural education reform in the U.S.	3.0	1.3	5.2	1.2
12	PL 94-142	2.3	1.7	4.4	1.7
13	ESL programs and ELL	4.3	1.3	5.3	1.3
14	Religious histories, doctrines, and practices other than your own	3.9	1.6	5.0	1.3
15	Prominent people of color	4.4	1.4	5.6	1.0
16	Bilingual education	3.8	1.6	5.0	1.3
17	Low-income life circumstances	4.9	1.4	5.8	1.2
18	Social class educational barriers	4.7	1.4	5.8	1.0
19	Racial identity development	3.4	1.5	5.4	1.2
20	Multicultural education resources in your community	3.1	1.5	4.9	1.3
21	LGBTQ culture, history, and text in the U.S.	2.5	1.4	4.7	1.4
22	Inter-cultural communication	2.9	1.3	4.8	1.2
23	Oppression theory	2.7	1.6	4.6	1.4
24	School funding practices related to SES	3.1	1.5	5.3	5.2
25	Multicultural curricula and curriculum transformation	2.9	1.4	4.9	1.3
26	Women's history, culture, and text in the U.S.	3.8	1.4	5.1	1.1
27	IDEA and ADA	3.9	1.6	5.4	1.2
28	Affirmative action purpose and implementation	3.8	1.4	5.2	1.1
29	Gender bias in education	3.7	1.6	5.3	1.2

30	Title IX education guidelines	3.9	1.6	5.3	1.2
31	Second language acquisition	3.8	1.5	4.6	1.3
32	Effects of oppression on achievement and career	3.6	1.6	5.4	1.3
33	Heterosexism	3.3	1.7	5.1	1.4
34	Effects of privilege on equity	4.1	1.5	5.5	1.3
35	Disability culture	3.5	1.6	5.2	1.3
36	Teaching diverse student populations	4.4	1.4	5.9	0.9
37	Conducting effective advocacy for educational equity	3.9	1.6	5.6	1.1
Average		**3.6**		**5.2**	

An integrative review on collegiate family caregivers of older adults

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Abstract

Young adults caring for their aging family members might have impact on their higher education plan. Little is known about young adults emerging to fulfill caregiving responsibilities in the U.S. and globally. An integrative review was applied to identify key indicators of willingness to provide care and quality of life among collegiate family caregivers. Current information and literature was summarized about collegiate family caregivers and their quality of life. A purposive computerized database search of literature published between 1990-2017 that included the following key terms was reviewed: college student, older adult family caregiving, family life, relationships with young adult caregivers, and caregiving experience. This search found six articles with several themes emerging including students' attitude toward caregiving, caregiving behaviors, and emotional wellbeing. Implications were discussed, especially enhancement of counseling and social services offered on campus.

Introduction

Family caregivers who provide consistent unpaid care to family members due to disability, frailty, or medical needs have been the backbone of the long term care system in the U.S. In 2013, it was estimated 34.2 million of people were family caregivers of older people and spent 24.4 hours per week providing care that averagedan economic value of $470 billion in services (National Alliance for Caregiving, 2015). This phenomenal trend of family caregiving has drawn public attention and policy development of the National RAISE Family Caregivers Act in 2017 (AARP, 2018). Family caregiving can be rewarding as caregivers gain life satisfaction, and family relationships improve through providing care to their loved ones (Dwyer, Lee & Jankowski, 1994; Savungranayagam, 2014). On the other hand,

most caregivers experience physical strain, emotional stress, or financial hardship as a result of being a caregiver (National Alliance for Caregiving, 2009).

As life expectancy keeps increasing, people are expected to face the pressure of family caregiving as the older generation, with subsequent increasing comorbidities, continues to age. It is reported that approximately 48% of total caregivers are 18-49 years old, and it is expected that more young adults will serve in the role of family caregiver as the older adult population keeps increasing (Silverstein &Giarrusso, 2010; National Alliance for Caregiving, 2015). AARP's study found that Millennial and Generation X caregivers compared to Baby Boomers were more likely to experience feelings such as being proud or strong in caregiving (AARP, 2017). Millennial and Generation X caregivers were also more likely to say their relationship with care recipients had improved as they felt closer to this person and communicated more often. However, they were more likely to feel stressed and overwhelmed at the same time (AARP, 2018).One study reported that 46% of caregivers aged 18-49 are in a high-intensity care situation, and that 4 in 10 reported a high level of emotional stress (AARP, 2020). The phenomenon of young caregivers calls for more attention to assess and address mentalhealth needs for young caregivers (Saltz, Lichtenstein, & Regan, 2017).

Caregiver research literature in the USA and other parts of the world indicate that young adults (18-25 years old), who are mostly pursuing high education, have emerged to fulfill caregiving responsibilities (Caspar & O'Rourke, 2009; Day, 2015; Greene et al., 2016; Levine et al., 2005). Caregivers in one study reported caregiving duties interfered with their employment or altered their work status and financial gain, leading to a higher level of emotional stress (Longacre et al., 2017). Another study reported that young adult caregivers experienced complex feelings toward caregiving although they strived to provide assistance to their older relatives, caregivers experienced strain and demand for formal support services (Dellmann-Jenskins et al., 2000). High demand on caregivers can lead to lack of personal time, resulting in family caregivers failing to pursue positive health behaviors (Shifren & Chong, 2012). A few studies called for further understanding on young adults' needs for support and coping mechanisms (Baus, Dysart-Gale, & Haven, 2005; Shifren & Chong, 2012). These previous studies shed a

light on the complexity of young adult caregivers' issues and the variation of their needs. At the same time, there is not much known on current family collegiate caregivers: their experience on family caregiving, their emotional well-being, their relationship with elderly relatives, social supports, and the impact of caregiving on their lives. This warrants a further comprehensive review on previous studies and their results examining the effect of caregiving on college students' educational progress and ways that caregivers balance their caregiving roles with the demands of schoolwork and employment to fund higher education.

Most young adults in the United States pursue some form of higher education as a step to prepare for entering the job market (AARP, 2018). Higher education, which is associated with higher income, may become less accessible to this group of caregivers due to lack of personal time for pursing educational and career goals (Levine et al., 2005). A call for learning more about the needs and concerns of young adult caregivers, especially on the impact of caregiving on educational plans and other factors associated with career goals, flows from a comprehensive review on previous studies on collegiate family caregivers.

Method

IRB was not required for this work. This study is to review previous studies on college students' experienceswith family caregiving.

Literature search

Using the integrative review strategy described by Whittemore and Knafl (2005), a literature search process was performed. The integrative review enablesunderstandingthe phenomenon of an issue, and thus provides direct applicability to practice and policy. The benefit of including quantitative and qualitative studies can capture a comprehensive understanding of the issue (Whittemore&Knafl, 2005). Relevant research studies were sourced using the databasesof Academic Search Complete through the period of 1990 to 2017. Keywords including 'college student caregivers' and 'support' yielded 2,096 results. The author modified keywords with 'college students' and 'caregivers or 'caregiving' which yielded 22 articles.With the added focus on family caregiving experience and college students,

resultswere reduced to 2. CINAHL was searched with both keywords 'college students' and 'family caregivers' yielding 4 articles; 'college students' and 'caregiver burden'yielded another 8 articles. PubMed was search with keywords 'college students' and 'family caregivers' yielding 145 articles. All duplicates and irrelevant studies to the research were removed.   Eventually 6 articles in which college students were recruited in their studies exploring family caregiving issues were selected (See Figure 1), with data evaluation and analysis leading to this selection described below.

[INSERT FIGURE 1 HERE]

Data evaluation

The author reviewed the articles from Academic Search Complete, CINAHL, and PubMed by reading the abstracts. The author included both quantitative and qualitative studies but excluded the duplicates and irrelevant studies. The quality criteria of the selection included (1) research participants in the study were college students, and (2) research participants reported being family caregivers or former family caregivers to their family members or relatives. To ensure the quality of these studies, the author reviewed each study in detail by understanding the research questions and hypotheses, methodology, results yielded from the study, and the value of the study on the issue of collegiate family caregivers. Each study was reviewed at least twice by the author. Table 1 lists the reviewed articles.

[INSERT TABLE 1. HERE]

Data analysis

The author analyzed the included articles by identifying and categorizing the research design and results. The author found several studies focused on college students' attitude toward caregiving and their willingness to provide care and support in the future (Trujillo et al., 2016; Gopalan et al., 2012; Joshi et al., 2015). One study examined caregiving behaviors among college students(Baus et al., 2005). Other studies focused on emotional and mental health status of college students due to caregiving (Crandall et al., 2014; Greene et al., 2016). As suggested by Hopia et al. (2016), the author also ordered and coded related findings from the studies and grouping was completed after careful constant comparison method. The wholereview procedure was performed as the author kept in mind the aim of the review on collegiate

family caregivers' experience, and was repeated twice to ensure the accuracy of the analysis and that no data from each study would be missed.

Results

After reviewing the design of the studies and comparing their findings, three themes emerged: students' willingness to assume caregiving, college students' caregiving behaviors, and college students' emotional and mental status affected by caregiving.

Students' willingness to assume caregiving

Three studies focused on college students' attitude toward being caregivers (Trujillo et al., 2016; Gopalan et al., 2012; Joshi et al., 2015). Two of the three studies focused on college student attitudes toward providing family care in the future, showing that college students were willing to take on caregiving of their older parents and grandparents as a way to improve connections with the family (Joshi et al., 2015; Trujillo et al., 2016). College students have a positive attitude toward being family caregivers as they value caregiving for their personal fulfillment and positive relationships with older adults (Joshi et al., 2015). In their study, Joshi et al. (2015) found that attitudes, perceived behavioral control, and subjective norms of college students predicted their intentions for assuming the role of family caregivers based on the Theory of Planned Behavior. In other words, if college students have a positive attitude towards older relatives and subjective norms, and also have confidence to provide assistance to older relatives, they are more likely to provide care (Joshi et al., 2015).

In an online questionnaire study, Trujillo et al. (2016) tried to examine whether the Big Five (neuroticism, extroversion, openness, agreeableness, and conscientiousness) personality traits and empathy were associated with college students willingness to provide care for a family member with a chronic condition. The research found that personality was reported to be the main factor in college students' willingness to provide emotional care, instrumental care and nursing care. College students with greater empathy were associated with more willingness to provide emotional, instrumental, and nursing care for a family member in the future. Also, student participants with high agreeableness were more willing to provide emotional care, and student with older age was found to be a predictor of

instrumental care (Trujillo et al., 2016). Trujillo et al. (2016) called for interventions incorporating perspective-taking and training-in-life skills as a means of boosting empathic concern and subsequently greater willingness to care among youngerstudent caregivers.

In addition to understanding the willingness of being caregivers, Gopalan et al. (2012) examined the potential influence of motivation(altruist or egoistic) on willingness to provide support to a parent who was hypothetically providing care for an elderly relative, and compared differences between securely (less self-oriented) and insecurely (more self-oriented) attached students. The message about family caregiving and stress encouraged both participants to support the caregiver foreither altruistic (other-oriented) or egoistic (self-oriented) reasons. Securely attached participants were not differently influenced by the two messages. However, insecurely attached participants were more willing to help if they received the egoistic message (i.e. "society esteems me for helping my family") than if they received the altruistic message (i.e. "I like having the ability to help my family and seeing them improve"). This study contributed to the knowledge of a family member's attachment style that can be useful for selecting an appropriate method for encouraging caregiver support among young adults, and indirectly encourage young adults to increase their role as family caregivers (Gopalan et al., 2012).

College students' caregiving behaviors

Onestudy explored a developmental theory-based explanation for college students' caregiving behavior (Baus et al., 2005). The findings for the study revealed that college students tend to be inexperienced as providers of care. Both caregivers for family and those for friends were reported to provide companionship and emotional support. Caregivers for family,as compared to caregivers for friends, in all age groups provided more caregiving behaviors including transportation, chores and meals, phone calls for medical appointments, personal care and bathing, and assistance with legal and financial matters. Male and female caregivers reported no statistical difference on the following caregiving behaviors: transportation, companionship and emotional support, chores and meals, phone calls for medical matters, personal care and bathing, legal and financial matters, and other applied). However, female caregivers were reported to provide more chore, meal, personal care and bathing than male

caregivers in the study. Baus et al. (2005) also indicated in their study that college students are on the edge of a life change with knowledge that their futures will involve more caregiving responsibilities than they have thus far anticipated to the group aged from infant to age 17. This study revealed that college students especially young women face certain hands-on caregiving challenges as they face their parents aging process, and the studentsstarting their own nuclear families. The increasing caregiving responsibilities as a sandwich generation result in challenges to provide support to this cohort (Baus et al., 2005). This study also found that locus of control among college students influenced perceptions of support, indicating that persons with higher internal locus orientation,who tend to take their problems upon themselves and reach out less for assistance, reported less support from an individual they would usually have turned to for support than persons with low internal locus of control. (Baus et al., 2005).Baus et al. suggested locus of control and its impact on caregiving warrants further study into associated factors, such as relationship boundaries, self-awareness, self-esteem vs. other-esteem, perception of burden, and locus of control of care recipient, that might be contributing to this phenomenon for requesting assistance with caregiving (2005).

Caregiving and college students' emotional and mental status

One study revealed that collegiate caregivers, through tending to the needs of older family members with serious medical or psychiatric conditions, can develop other hardships such as emotional distress and college life adjustment (Crandall et al, 2014). Their study assessed college adjustment difficulties, including increased caregiving burden, in students who come from families with a parent with bipolar or depressive disorders. Results of the study showed that even after controlling for whether the student themselves had been affected by a mood disorder, students whose parents had either bipolar disorder or major depressive disorder reported greater difficulty adjusting to college than peers with no such history. Students also reported increased caregiving related burden associated with their affected parent. The caregiving burden was measured using the Zarit Burden Interview including 22 items on difficulties associated with caring for an ill family member. This study highlighted the negative effects of caregiving burden and responsibilities that may extend to students in college, suggesting a need to

recognize these students with specific psychiatric family background and connect them with appropriate resources to improve their mental wellness (Crandall et al, 2014).

A study echoed the Crandall et al. (2014) study on the relationship between family caregiving responsibilities and mental health of young adult family caregivers (Greene et al., 2016). The results of Green et al. study found that caregivers were not only more depressed and anxious than their non-caregiving peers but also that the levels of symptomatology in many of them were clinically significant. The study also showed that high indicators of emotional distress among collegiate caregivers coupled with university pressures and other factors likely contribute to increased vulnerability of psychiatric distress. This study also suggests that collegiate family caregivers may be at risk for continued poor mental health and difficulties in ongoing and future educational and occupational pursuits, as well as overall success in life (2016).

Discussion

Three themes emerged through the integrative review that can further help us understand the issuesfacing colligate family caregivers: students' willingness to assume the role of caregiver, caregiving behaviors, and emotional and mental wellness. First, college students who are young adults tend to be willing to take up the role of caregiver in the future if the family needs their assistance,they have positive attitudes toward their older care receiver relatives, and have strong and positive norms. This aspect encourages the following society and family norms as suggested by Joshi et al. (2015) for successful family caregiving experience: cultivating more interactions between students and older adults, and building up an intergenerational bond and quality time starting at an early age. As it is foreseen that younger generations will assume more of the family caregivers' role, educational institutes should develop service learning, internship, or other volunteer opportunities to cultivate positive and healthy relationships and attitudes toward those who are aging and care recipients (Author, 2018). Author (2018) revealed, from college students' reflection on conducting a life story with caregivers,that caregiving strengthened their familial piety value and increased their awareness of the needs of their aging parents.

Quality interaction with older adults enables young adults to be more prepared for caregiving roles, as it will increase their empathy and self-confidence in providing care.

The theme on caregiving behaviors from a previous study (Baus et al., 2005) indicated that college students were relatively inexperienced as care providers, which is consistent with AARP's study (2017). Given demographic data cited herein, college students will have to assume greater caregiving roles and responsibilities, and face hands-on challenges as portrayed by Baus et al. (2005): developing caregiving skills and identifying social supports. Enabling collegiate family caregivers to seek formal and informal supportsthat will sustain their caregiving roles should not be neglected on the school campus setting. The other theme that is following the challenges of collegiate family caregivers is their emotional and mental wellness due to caregiving. Facing dual burdens from adjusting toa new life stage, college experiences and providing care to family members can also have a toll on college students' mental wellness.

For counseling and counselor education, it is important to include family caregiving issues in the assessment while working with college students. Assessing students' family composition, the quality of family relationship, and tasks and responsibilities students partake will provide important information on the impact of family caregiving on their life. In addition, counselors should assess emotional and instrumental supports of the students as the quality of these social supports can affect students' mental wellness. Understanding students' concern on balancing school work and family life will further help students sustain their dual roles with innovative approaches. Campus counseling services can help students develop coping skills and increase their self-efficacy to fulfill both roles of college student and family caregiver. Student care and outreach services should be developed in partnership with the Higher Education Case Management Association to specifically address the needs of students as caregivers. However, student services should not limit resources for only college students but be able to reach out and make referrals to both internal and external services (such as caregiver services and adult day care) that can help their families. For instance, some colleges, including Borough of Manhattan Community College as one example, provide childcare for students who do not have family or additional resources.

Exploring the possibility to provide respite services while students are attending college is an innovative way to support student success. Meeting their daily challenges on caregiving will surely help students to retain their pursuits in higher education and career goals. Educating and training instructors and professors to better understand and provide support to their students to attain educational goals should also be a part of this initiative. Counselors could provide sessions during collegiate new employee orientation as well as provide forums to current college instructors and professors annually so that they could become more sensitive to the needs and referral options for college students. Some professors may also find they can personally benefit from caregiver trainings and resources.

For future research, there is an urgent need to collect information toward a comprehensive picture on the needs of collegiate caregivers:ways that family caregiving impacts students' college educational progress, the balance of their college studies, caregiving duties, locus of control, and impact on their career plans has yet to be investigated. Educational institutes will be able to better assist and provide counseling, support, and resources to students who are also family caregivers,enabling retention and completion of their higher education goals.

Limitations

In using this review, there needs to be caution about generalization, interpretation and application of the results obtained. Secondly, this study is not meant to analyze the reliability, validity or results of studies, but to include studies regardless of the method used. The purpose of the integrative review is different than meta-analysis which is a research review focusing on enhancing the objectivity and validity of findings. Third, only small numbers of studies were found and this is a limitation of the availability of body of research. One major reason is due to the fact that while some studies examined young adult family caregivers, theydid not specify their educational status. The author included articles that provided a break-down on educational status but found limited articles. Last, the search is limited to only English language, and other studies written in other languages might be under-represented.

Despite of the limitations, this integrative review contributes useful knowledge about collegiate family caregivers' experiences. The review informs health care and social service providers as well as

academic institutes on developing innovative interventions to provide support and resources to these family caregivers to better sustain their roles. Future research direction is clear on obtaining further in-depth understanding of family caregiving positive and negative impactsamong college students.
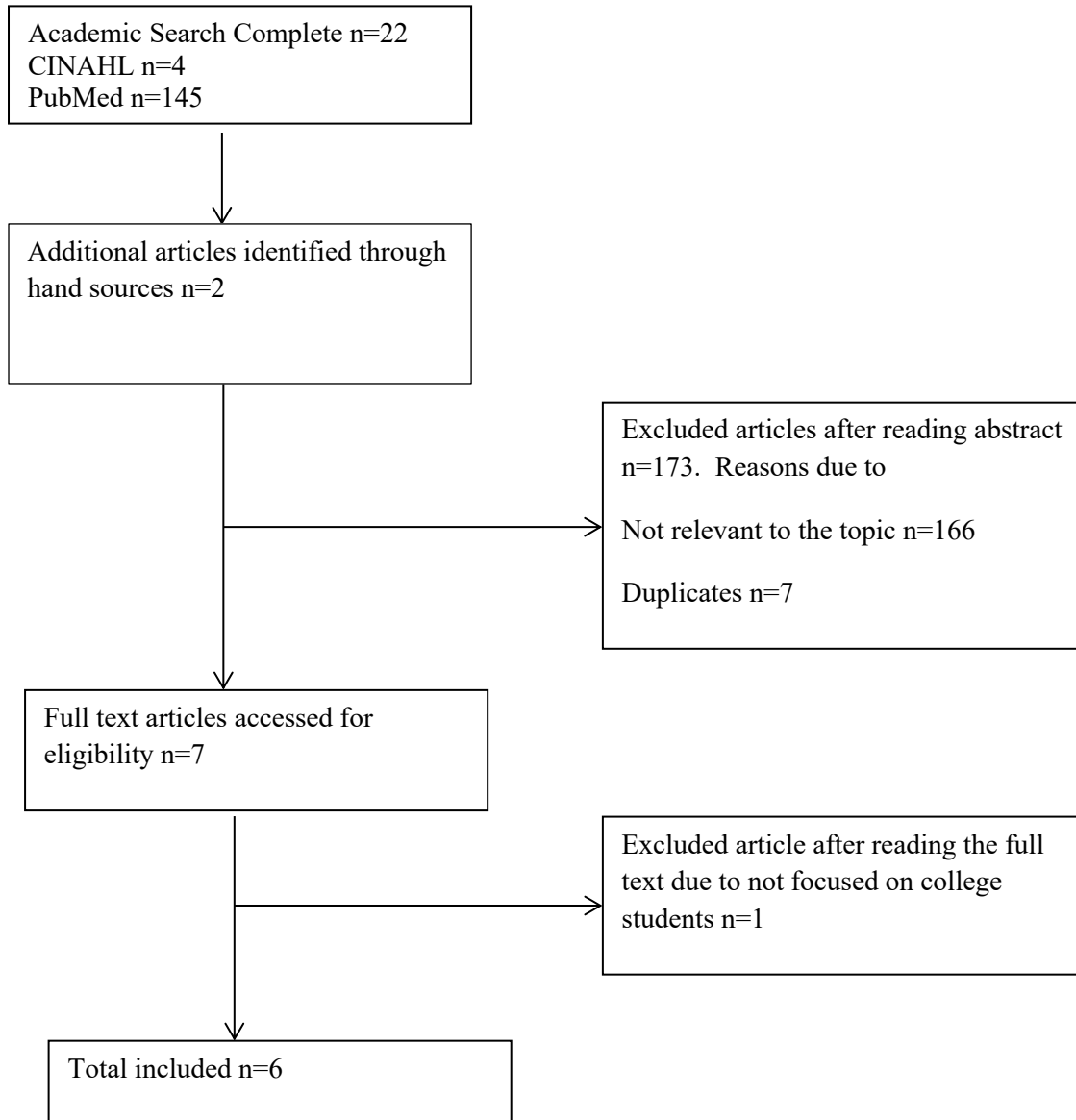
Figure 1. Flow of studies through review

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┌──────────────────────────────────────┐
│ Academic Search Complete n=22        │
│ CINAHL n=4                           │
│ PubMed n=145                         │
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│ Additional articles identified through│
│ hand sources n=2                     │
│                                      │
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                  │                        │ Excluded articles after reading abstract│
                  │                        │ n=173.  Reasons due to               │
                  │──────────────────────▶ │ Not relevant to the topic n=166      │
                  │                        │ Duplicates n=7                       │
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│ Full text articles accessed for      │
│ eligibility n=7                      │
└──────────────────────────────────────┘
                  │                        ┌──────────────────────────────────────┐
                  │                        │ Excluded article after reading the full│
                  │──────────────────────▶ │ text due to not focused on college   │
                  │                        │ students n=1                         │
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│ Total included n=6                   │
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Table 1. College students/young adult family caregivers

Authors and year	Aims	Participants	Study Design	Findings
Trujillo, M., Perrin, P.B., Elnasseh, A., Pierce, B.S., & Mickens, M. (2016) (U.S.A.)	To examine among college students the relationship between personality traits and willingness to care for a relative with a chronic health condition.	329 undergraduate students	Online questionnaire Hierarchical multiple regression	Personality traits explain 10% of the variance in willingness to provide emotional care, 7% in instrumental care, and 7% in nursing care. Within these models, greater empathy was uniquely associated with willingness to provide emotional, instrumental, and nursing care for a family member in the future. Participants with high agreeableness were willing to provide emotional care, and participant older age was a unique predictor of the instrumental care.
Crandall, E.K., Ruggero, C.J., Bain, K., & Kilmer, J. (2014) (U.S.A.)	To determine whether college students with a parent diagnosed with either bipolar or depressive disorder faced challenges in college.	89 undergraduate students	Semi structured interviews and self-report measures	Students with a family history of bipolar disorder and major depressive disorder had significantly greater difficulty adjusting to college. These difficulties persisted even after controlling for whether the student themselves had been affected by a mood disorder. The students of a parent with either Bipolar Disorder or MDD also reported significantly more burden associated with caring for

				their parents.
Baus, R., Dysart-Gale, D., & Haven, P. (2005) (U.S.A.)	To explore a developmental theory-based explanation for college students' caregiving behavior.	266 college students	ANOVA	With respect to the provision of care, female caregivers engaged in more difficult types of hands-on support than male caregivers, and data suggested that college caregivers are differently challenged by the life stage of the person for whom they provide care. With respect to students' reception of social support, both main and interaction effects were found for sex, caregiving status, and locus of control.
Gopalan, N., Miller, M.M., & Brannon, L.A. (2012) (U.S.A.)	To test the influence of a novel appeal on willingness to provide support to a parent hypothetically providing care for an elderly relative and compare differences between securely and insecurely attached individuals.	151 undergraduates	ANOVA	Securely attached (less self-oriented) participants were more willing to help if they received the egoistic message than if they received the altruistic message. Thus, knowledge of a family member's attachment style can be useful for selecting an appropriate method for encouraging caregiver support. Whereas the type of message used does not matter for securely attached individuals, an egoistically framed message may be more influential than an altruistically framed message among insecurely attached

				individuals.
Greene, J., Cohen, D., Siskowski, C., &Toyinbo, P. (2016) (U.S.A.)	To examine the relationship of family caregiving responsibilities and the mental health and well-being of young adult caregivers (age 18-24)	353 undergraduates (81 past caregivers, 76 current/past caregivers, 196 non-caregivers)	ANOVA	Caregivers had significantly higher levels of depression and anxiety symptoms than non-caregivers.
Joshi, G., Gezan, S., Delisle, T., Stopka, C., Pigg, M., & Tillman, M. (2015) (U.S.A.)	Focus on college students' attitudes toward their older relatives; their perceived behavioral control to serve as informal caregivers; subjective norms toward informal caregiving; understanding of how the constructs of Theory of Planned Behaviors (TPB) explain the intentions of college students to provide informal caregiving to their older relatives.	750 university students	Hierarchal multiple regression	The students' quality of experiences and interaction with older relatives correlated significantly with intentions, subjective norms, and perceived behavioral control to serve as informal caregivers. In the present context, the Theory of Planned Behavior (TPB) offers a viable explanation of students' intentions to serve as informal caregivers.

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But…Who Will Take Care of Them?

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Introduction

Presently, the United States, like most countries in Europe and a large share of Asia, is in the midst of several demographic shifts. These demographic shifts could possibly affect the future health care needs and social support systems of older, childless Americans'. According to a recent article from the United States Census Bureau from September 2021, these demographic shifts within the U.S. population officially has the attention of the U.S. government and numerous politicians whose states may be affected most.

Essentially this research focuses on three things. First, the paper will define who the older, childless Americans are in our society. Second, it will address the four key demographic shifts presently occurring in the U.S. that will have lasting effects on the older, childless population.Third and finally, the topic of alternative social support systems for older, childlessadults outside of the traditional family setting will be addressed. Surprisingly, a great majority of the literature on social support systems for the elderly comes from the business literature and not necessarily the social sciences.

Defining Childless Older Americans

The topic of childless older people can be presented in several ways. This study's operational definition of "childless" is represented by people reporting no biological children. Older couples who adopted and raised children are still considered childless. Further, this study will examine single, never-married older people and older people who are married, widowed, and divorced. The word older adult is operationalized as a person who is 55 years of age or older.

According to a recent article from forbes.com,10.9% of adults 75 years and older reported being childless; 15.9% of adults 65 to 74 years of age, reported being childless; and 19.6% of those 55 to 64

reported being childless. When examining these numbers, it is evident that the number of older adults without children is a trend that is increasing (Geber, 2021). In a recent article from the National Institutes of Health, researchers found that 1 in 6 older adults do not have biological children. The majority of these adults were non-Hispanic White. Men are also more likely to be childless than are women. (National Institute on Aging, 2021).

To further accentuate this point, the Forbes article reports that 22.1 million adults 55 years old and older reported living alone. Of those 22.1 million adults reporting to live alone, 6.1 million were childless. Men at 34.3% and women at 23.6% reported being childless (Geber, 2021).

A Forgotten Population: Who are they?

In a recent article from The Guardian, it states: "More than 1 million people over the age of 65 without children are "dangerously unsupported", and at major risk of isolation, loneliness, poor health, poverty and being unable to access formal care" (Hill, 2019, p.2). Other risk factors according to Hill (2019), include: poor support networks, low income, people from LGBTQIA+ communities, susceptible to scams, susceptible to abuse, poor experience with life, people with disabilities, suffering from one of the dementias, poor health behaviors, higher mortality rates, and less access to unpaid care which is usually provided by children. Additionally, childless older adults struggle to arrange formal care because it is usually their children who arrange formal care for their parents.

A major concern with the population of childless, older adults 65 and older is that it doesn't get much attention. Hill (2019) suggests that rising numbers of people ageing without children will have an impact on the health and social care system. Further, their needs at this age are so critical that they need targeted government policy to support them.

Another angle to consider when discussing the childless, older population in the United States is that there is very little literature on this demographicThey don't have enough people advocating for them, most likely because they don't have children. The primary concern both demographers and gerontologists have is that this population is continuing to grow rapidly with no one in their corner to support them. This population truly is a forgotten demographic in our society.

Demographics

About 1 in 6 U.S. adults ages 55 and older are childless. The United States Bureau of the Census is beginning to collect data on this population and politicians are beginning to take these statistics serious because their numbers are growing due to declining marriage rates and an aging population (U.S. News, 2021). Childless adults will continue to make up a greater share of the older adult population in the future. Below, are some of the current demographics for older, childless people in the United States. Around 22 percent of adults 65 and older are aging without a spouse or a child (My Care Companions, 2019).

Older, childless adults in the U.S. are more likely to be college educated, working, and white. Childless women have the highest net worth, at $173,800, followed by biological fathers at $161,200, while the median net worth for everyone over age 55 was $133,500 (U.S. News, 2021).A greater share of childless, older adults were non-Hispanic white compared with biological parents, 79% versus 72% (U.S. News, 2021).

Key demographic shifts affecting childless, older adults

Below, is a brief overview of four demographic shifts presently occurring in the U.S. population that is leading to a steady increase in the number of older, childless adults. While the list isn't exhaustive, it covers a majority of the demographic explanations repeatedly found in the literature related to this topic.

Declining fertility rates

According to a recent article published by Statista Research Department (2021), births in the United States have been declining over the past few decades.In fact, the 2021 fertility rate in the U.S. was 1.781

births per woman, which was an increase of 0.11% from 2020. This is still below the replacement level of 2.1% (Macrotrends, 2022).

According to a recent article from Kearney and Levine(2021), birth rates have been falling almost continuously for more than a decade. The researchers state that the birth rate declined 20 percent between 2007 to 2020 for women of childbearing age 15 to 44. Kearney and Levine (2021) also suggest that the U.S. fertility rates are likely to continue to be considerably below replacement levels for the foreseeable future. This is driven by more than a decade of falling birth rates and declining births at all ages for multiple cohorts of women and doesn't look likely to rebound anytime soon. For example, teen birth rates are down (Stone, 2020) A couple of other trends include rapidly-rising childlessness among women in their late thirties and low rates of first birth which translates into higher childlessness among women in their forties. (Stone, 2020).

New survey data from Pew Research Center show a growing number of American adults between the ages of 18 to 49 don't expect to ever have children. The top three reasons provided include: 56 percent of the survey respondents stating that they just don't want children. Medical reasons accounted for 19 percent and 17 percent were financial (Emba, 2021). Education and income also play a significant role in fertility. In nearly every high income society, people who are more educated and have higher incomes have fewer children than those who are less educated and have lower incomes (Population Reference Bureau, n.d.).

Declining marriage rates

A recent article from IBIS World (2021) states that the marriage rate has fallen consistently since the mid-1980s as unmarried cohabitation has become more common. The two most telling trends from the study suggest that women's wages have increased against men's in recent decades; and changing public sentiment toward the necessity of marriage have reduced marriage rates.

Since the start of the 21st century, the U.S. marriage rate has declined from more than eight marriages per 1,000 down to six marriages per 1,000 population in 2019. This marriage rate statistic is the lowest since the U.S. government began keeping marriage records for the country in 1867 (Chamie, 2021).Over the past 18 years, the national marriage rate has fallen by about 20 percent, with the decline concentrated mostly among states in the South (United States Congress Joint Economic Committee, 2020).

According to a Pew Research Poll in 2019, among those aged 25 to 54, 59% of Black adults were unpartnered. For Hispanics it was 38%, for whites it was 33%, and for Asian it was 29%. The reason why these statistics are important is because so much of the research shows that when younger people aren't getting married, there is a good chance that more children won't be born in the future (Blow, 2021). Another factor to consider is that marriage rates in the U.S. have drastically decreased among both middle-class and low-income people in the past five decades (TRT World, 2021). A recent study from the Brookings Institute found that since 1979, marriage rates for both the middle class and lower class have seen a steady decline in marriage, reaching 66% and 38% as of 2018 (Reeves and Pulliam, 2020). It is unlikely that the birth rates will increase with the marriage rates for these classes declining.

Urbanization

The largest migration in human history occurred over the last century and continues today as people move from the country to the city (Bricker, 2021). In 1960, one-third of humanity lived in a city. Today, it is nearly 60% (Bricker, 2021). Moving to the city offers women more opportunities for work that their mothers and grandmothers did not have. Women living in urban areas are more likely to have an education, a career, and easy access to contraception.

The role of COVID-19

The U.S. birthrate fell by 4% during the pandemic in 2020, hitting a record low. (NPR, 2021). The Brookings Institute estimates that 300,000 babies were not born in the U.S. as a result of economic insecurity related to the pandemic (Bricker, 2021).

A decline in fertility is just one way COVID-19 has suppressed population growth. Although some analysts are predicting a mini baby boom now that the pandemic seems to have subsided, it would unlikely fully compensate for the decline of babies not born during 2020 and 2021.

The pandemic's resulting economic insecuritylimited socializing, increased home confinements, and enhanced anxieties about the future. These factors from the pandemic are believed to have also contributed to fewer marriages (Chamie, 2021).

Additionally, it is predicted that the pandemic cut short the life expectancy of a couple of racial minority groups in the U.S. African Americans life expectancy is now two years less; and, for Latinos, it is three years less (Bricker, 2021).

Other explanations

Beyond the four primary reasons mentioned above, there are so many other factors that could come into play as to why the older, childless population is increasing in the United States. Volsche (2020) suggests that women's increased educational attainment, employment opportunities, reduction in teen pregnancy, access to birth control, and reduced marriage and childbearing among women 20 to 24has also played a large part in this trend.

Other possible explanations mentioned in the literature for whymore single, older adults and couples are childless,include: massive student loan debt, many men and women just do not want children (Marusic, 2018),the rising age of marriage (Stone, 2020), cohabitation is sometimes preferred, some young people are still living with their parents, weddings are expensive, a decline in male wages, uncertainty in terms of income, employment, and housing (Heingartner, 2021), ease of terminating a relationship, ease of terminating a marriage, and infertility issues.

Childless Older Americans: The Good

This section discusses some of the positive aspects of the childless, older population in the United States. When it comes to physical health, about three-quarters of older, childless women report that they have excellent, very good or good health. For older, childless men 71% reported excellent, very good or good health (U.S. News, 2021).

A recent study by Quashie et al. (2019) addresses childless,older adults from four global regions: Europe, North America, Latin America, and Asia. The study concluded that childlessness was not significantly associated with older adults' health. Further, there was no consistent relationship between childlessness and poor health across the 20 country study. The study also concluded that being childless was associated with lower risk of chronic conditions in some countries, including: Italy, Germany, The United States, Hungary and Mexico (Quashie et al., 2019).

Women without children had better self-related health scores and higher personal net worth than men without children. Older, childless women were less likely to be living with disabilities than biological mothers (National Institute on Aging, 2021). Childless, older women also tend to be better positioned than men when it comes to health and wealth (U.S. News, 2021).This could be for several reasons. First, beginning with the Baby Boom generation, more women began to work outside of the home full-time. This trend has increased with each successive generation, i.e. Gen. X and Millenials.

The Census Bureau (2021) reportsthat older adults without children were more likely to have higher levels of personal net worth and educational attainment than older adults with children. What this means is that while older, childless adults have less support from within their households, they may be at a greater advantage when acquiring paid care later in life.

Childless Older Americans: The Bad

There are downfalls that childless, older people may experience. Childless, olderadults and couples miss out on the joyful times of celebrating key moments with children such as birthdays, graduations, and weddings. Many also spend more time being lonely, especially as they age, unless they have a strong

social support system. Further, they have to depend on friends and relatives if they need help, and that help is not always available (Rochelle, 2017).

The longer people live, the more likely their health is going to deteriorate. Childless, older people with health problemswho don't have children or other family members to depend on, must learn to use the things that are available to them such as renting assisted living apartments, having groceries delivered, using Uber or similar services for transportation and employing part-time housekeepers. While all of the aforementioned services are expensive, the caveat to these problems is that childless, older adults, in particular, childless, older white women are often able to afford these services. They are able to afford the services because they did not have to spend hundreds of thousands of dollars raising a family (Rochelle, 2017).

Childless Older Americans: Sources of support outside of family

The key question this paper seeks to address is: Who will take care of them? It is an important question to ponder, considering recent data from the U.S. Census Bureau is predicting vast growth in this segment of the population in future decades. Traditionally, people can count on their adult children or other family members to take care of them, but what if no one is there? Whom can they rely on in their time of need? How much can they prepare in life from a financial standpoint to have enough money to fund what could possibly be years in an assisted living situation or a traditional nursing home?

Rochelle(2017) discusses how social relationships that childless older adults build within their families or with close friends can give them many of the joys that raising children bring while at the same time releasing them from the responsibilities of doing so. If cultivated properly, these ties could grow over the years so that when the childless, older adults reach old age, they may get many of the comforts they would have if they had their own children. Another social support network that is often overlooked is 'families of affinity' where the childless, older adults have strong relationships with people such as neighbors, church members, or coworkers and are oftentimes treated like family (Marusic, 2017).Another avenue of support may be young adults visiting them, helping them with choresand inviting them to important events.

Another way that childless, older adults build relationships with children can be through the type of work they do. For example, teacherstend to be surrounded by youngsters a lot, many of whom later remember the help teachers gave them. Other situations that may offer potential social support could be coaches, tutors, boy scout leaders and others who choose to do things to help the young. In return, later in life, they find that those younger persons show their appreciation by staying in touch and "being there" for the older adult (Marusic, 2017).

Garland (2015) discusses how childless, older adults need to add a safety net as part of their social support system. The safety net is designed to assist the childless, older adult or childless, older couple to navigate the complex system of health care, housing, transportation and social services. The safety net could include a network of friends and relatives who can keep tabs on the older adult or older adult couple, helps them negotiate the health care system, helps build a team of legal and financial professionals and locate senior-friendly housing (Garland, 2015)).

According to Garland (2015) one of the first steps childless, older adults should take is to draft legal documents that will protect them if they become incapacitated. Both a durable power of attorney and agent should be chosen to manage the financial, legal and tax affairs should the childless, older adult become unable to handle these tasks. If a childless, older adult does not have someone reliable to take on this task, they could set up a revocable trust and assign a bank or trust company as trustee. The older adult would move their assets to the trust, and the company would eventually take on the financial tasks assigned to it, including paying bills and caregivers, processing medical claims, and overseeing the home if the older adult is hospitalized.

Ultimately, the older adult should draw up a plan for their future health care. The first place to begin would be with a living will. A living will can explain the health care wishes under certain medical conditions. Second, the older adult should purchase long-term care insurance (My Care Companions, 2019). Third, a health care proxy should be appointed. The health care proxy will make decisions on the older adult's medical care should they become incapacitated. The proxy's role is to also keep an eye on the older adult's mental and physical state, hire caregivers, and arrange for the older adult to move to new housing if necessary. If a proxy is not a possibility, then sometimes elder law attorneys can become a health care proxy (Garland, 2015).

Other necessary sources of social support for childless, older adultsandchildless, older couples include: a certified public accountant, a financial planner, an estate-planning lawyer or elder law attorney, and a geriatric care manager. The financial planner could help devise a plan for long-term care and other services. The care manager could look for signs of dementia and arrange for services such as home care. This group of people looking out for the older adult or older adult couple could monitor the mental capacity of the older adult or older adult couple and watch out for financial elder abuse.

Last, another social support network could include aging-related community services. These services could include: visiting chefs, handyman firms, escorted transportation, home aide agencies, and senior centers. Older adults, although they may not need them yet, should explore various types of senior housing they may want to live in and get an idea of how much it will cost them to live there.

Discussion

The composition of the childless, older American adult population will continue to change over the next few decades. Recent data from the U.S. Census Bureau suggests this demographic will continue to steadily increase in all categories of the elderly population: 55-64, 65-74, and over 75 years of age. This complex demographic problem is now on the radar of the U.S. governmentand will most likely remain on it for awhile.

Much more research and strategic planning will be needed to understand what childless, older adults' future health care and social support needs will be for both the short-term and long-term. To figure this out, it will take thedue diligence of high ranking government officials at both the national and state level who can truly make impactful changes in policy to help this faction of the population. Further, the research knowledge ofpsychologists, sociologists, economists, demographers and gerontologists who study the elderly population at universities will also likely be sought afterto solve issues.

Conclusion

This paper is an exploration into how the literature defines childless, older adults; what childless, older adults can expect in terms of their current and future health care options; and what types of social support systems they might rely uponsince they don't have children? While this study does briefly mention divorce and widowhood and the effects it has on childless, older adults, it does not thoroughly addresseither topic and what kind of psychological, social, and economic problems that can cause older adults. Future research should address the impacts of divorce and widowhood on childless, older adults and couples. A summary of both the successes and challengeschildless, older adults and childless, oldercouples may experience in life follows.

The literature suggests that childless, older adults have several things going for them. First, many childless, older adults are financially better off than those who are married, especially childless, older women. This means that those persons with financial means will be able to better prepare for living arrangements and expenses in their older age. Second, numerous studies suggest that childless, older adults don't necessarily suffer from more isolation and loneliness than older adults with children. The literature suggests that they can compensate for not having children by developing strong friendships and relationships in a variety of settings. Also, a childless, olderadult or couple may have nieces and nephews or siblings to help them find living arrangements in older age, make doctor appointments, help with meal

preparation, and help with social services they may need. In other words, childless, older adults are not necessarily worse off than their counterparts with children.

While there are positives for childless, older adults, there are negatives as well. Not all childless, older adults are well-off financially. Some have access to relatives or social groups of friends to help them, but others do not. Some older adults are more mobile than others and can get around and take care of themselves. Others cannot. These are just a few of the serious problems that both local communities and states aregoing to need to address in the future.Below, is a brief summary of findings from three key academic articles addressing childless, older adults.

Quashie et al. (2019) suggest that childless older adults are not an overall "at-risk" segment of the older adult population in an international perspective, and in some cases, they even enjoy better health! The findings in this research are similarto a study conducted by Zhang and Hayward (2001) where they concluded that childlessness did not significantly increase the prevalence of loneliness and depression at advanced ages. They further concluded that their study showed no statistical evidence that childlessness increases loneliness and depression for divorced, widowed and never married elderly persons. However, they did find a difference between childless, older men and childless, older women. Divorced and widowed men who were childless had significantly higher rates of depression than divorced and widowed women.

Last, a major finding from the popular University of Michigan Health and Retirement Study (2016) concluded that not having children doesn't prevent childless, older adults from being happy, or even leaving a legacy. Most childless couples compensate by developing strong friendships and networks. Another important finding was that childless, older adults must prepare earlier, and more thoroughlyfor older age, without the ability to rely on children for support (Stern, 2020).

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Social-Emotional Learning & Culturally Responsive Teaching: Do Preservice Teachers have the Skill, Knowledge, & Awareness to Support Student Achievement? An Exploratory Study

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Abstract

Social-Emotional Learning (SEL) is an integral part of human development. It emphasizes the emotional well-being of the student. This spotlight allows students to excel in all areas of life, including academics. Similarly, Culturally Responsive Teaching (CRT) highlights students' need for more diverse and relatable curricula. Students who are more able to relate to the classroom lessons are shown to be more interested and better understand classroom instruction. The study was conducted in the year 2022 in three different semesters: pilot study was conducted in spring and then main study was conducted in summerand fall with fifteen preservice teachers.The findings suggest that, while preservice teachers hold limited knowledge of SEL and CRT, they recognize the importance of the topics in pedagogy and pedagogical content knowledge. (In Overall,50% of preservice teachers felt extremely comfortable incorporating new material about people from diverse backgrounds. Also, 30% of preservice teachers felt they could think of strategies to address sensitive issues of diversity extremely easily. The findings also highlighted that the preservice teachers held surface-level knowledge of the frameworks after just one lesson and activity, emphasizing the need for any resources regarding these topics to be implemented into Educator Preparation Programs (EPP).

Keywords: Social-Emotional Learning (SEL), Culturally Responsive Teaching (CRT), Preservice teachers

Introduction

SEL is the process in which students "acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions" (CASEL, 2022). SEL programs have been shown to improve academic performance, create healthier relationships, and improve mental wellness, among other benefits (CASEL, 2022). SEL provides students with the tools to not only succeed in school but in life as well (Keene, 2020). However, EPP does not include enough substantial training on SEL, leaving preservice teachers confused about what SEL looks like in practice (Waajid et al., 2013). A lack of prior knowledge regarding the SEL framework, combined with a lack of SEL-focused professional development opportunities, creates a staff unable to properly support the emotional well-being of their students (Ferreira et al., 2021). The same confusion and overall lack of preparation are not just directed toward SEL but CRT as well. CRT is the use of cultural characteristics and perspectives of diverse students as conduits for teaching (Gay, 2002). This framework is built on the idea that instruction is more personally relevant, has higher interest appeal, and is learned more quickly and completely when students are more able to relate. The framework has been shown to improve the academic achievement of culturally diverse students. CRT implores teachers

to complete an "internal audit," assessing and realizing personal biases or harsh realities that might be difficult to look at (Rucker, 2019). Although CRT is a significant approach for in-service and preservice teachers to consider, EPP offers little to no content that might aid teacher candidates' cultural awareness and responsiveness (Karatas& Oral, 2019). The lack of substantial knowledge regarding both SEL and CRT was the primary motivation for this study.

The purpose of this study was to assess preservice teachers' knowledge of SEL and CRT. Both frameworks are vital to student success as they encourage the adaptation of instruction to incorporate the well-being and background of each student. As both topics are so important, I was curious about the explicit knowledge and understanding preservice teachers had of the subjects. Before our SEL/CRT lesson and activity, our groups admitted no extensive knowledge of the subjects. However, following just one lesson and activity where pre-service teachers learned the foundations of each subject, preservice teachers were much more understanding of the topics and confident in their ability to implement these frameworks in the classroom.

Literature Review

SEL "describes the mindsets, skills, attitudes, and feelings that help students succeed in school, career, and life" (Panorama Education, 2015). Effective SEL practices "must be equitable" (Harvard Graduate School of Education, 2021). SEL must be "supportive, affirming, and beneficial for students of all cultures, backgrounds, and identities," fighting against oppressive systems that impact social development and well-being (Harvard Graduate School of Education, 2021). When SEL professionals subscribe to a culture/racial-blindness practice, students of color are disproportionately affected and greatly failed (Ford, 2020). To properly use SEL, educators must not only teach students the skills and knowledge to identify and cope with emotions but must also understand why students behave and act in certain ways. SEL is a crucial factor in raising academic achievement. Improved attendance and fewer disciplinary problems are also associated with students with strong social-emotional abilities. The CASEL Model is a prominent framework in SEL studies (Ross & Tolan, 2017).The model lists the following five competencies, according to Social and Emotional Learning in Adolescence: Testing the CASEL Model in a Normative Sample (Ross & Tolan, 2017, p. 1172-1173).

- Self-regulate, or the ability to "regulate thoughts, emotions, and behaviors,"
- Self-awareness, or the ability to "recognize one's emotions and accurately assess one's strengths and weaknesses,"
- Social awareness, or cognizance of the "culture, beliefs, and feelings of the people and world around them,"
- Intrapersonal skills, or the ability to "communicate, work well with peers, and build meaningful relationships,"
- Reliable decision-making or the ability to "make plans for the future, follow moral/ethical standards, and contribute to the well-being of others."

According to *Why Not Social and Emotional Learning?* these competencies can be easily integrated into the classroom's daily routine. They can be as simple as a check-in with students, allowing students the time to reflect on their learning and the overall environment and encouraging students to establish constructive relationships (Billy &Garriguez, 2021). SEL programs accomplished "significant effects" across various categories, including "improved SEL skills; attitudes toward self and others; positive social behaviors; reduced conduct problems; emotional distress; and improved academic performance" (Payton et al., 2008). Despite the proven importance of SEL in child development, some educators criticize its implementation, citing that "it takes valuable time away from core academic

material" (Payton et al., 2008, p.16). However, research suggests that "SEL programming not only does not detract from academic performance but increases students' performance on standardized tests and grades" (Payton et al., 2008, p. 17). SEL interventions improved the academic performance of student participants by 11 percentile points (CASEL, 2022.). These essential social-emotional abilities have been found to improve family connections, college or graduate school success, and the rate of high school graduation over the long term; even better, they have been demonstrated to lessen criminal activity and boost community involvement (Keene, 2020). While SEL can be an explicit, free-standing lesson that teaches students the social-emotional competencies, it can also be general teaching practices that foster a supportive social environment and emotional development in students, integrating practices that support SEL within the context of academic instruction and ensuring administrators and school leaders understand how to facilitate SEL as a schoolwide goal (Dusenbury et al., 2015).

SEL, in its most basic form and implementation, is classroom management; it informs teachers' expectations for the classroom and sets a precedent for how students interact with one another and the teacher throughout the year (Norris, 2003). These programs are progressively important as schools are "increasingly diverse, serving students from different cultural, social, and economic backgrounds" (Keene, 2020, p. 4). Regardless of this nature, preservice teachers are underprepared or simply lack the confidence to utilize this framework inside the classroom, our findings show (Keene, 2020). As growing concerns about safety surround the nation's schools and classrooms, students need these SEL interventions that supply them with the tools to cope with the societal, personal, academic, and socioeconomic challenges that plague them (Sugishita& Dresser, 2019). Despite the proven benefits of SEL programs and the growing need for their implementation, Educator Preparation Programs (EPP) do not substantially include training on SEL fundamentals and how to utilize the framework in the classroom (Weissberg, &Cascarino, 2013). SEL can only be successful when educators target "multiple levels of the school social-ecological system" (Dyson et al., 2021). It must be at work, not just in the classroom; rather, it must be well-absorbed to follow the student in all aspects of life. EPP must provide preservice teachers with enough knowledge and practice to successfully implement SEL in the classroom; furthermore, schools and administration must continue their education with related professional development opportunities (Ferreira et al., 2021). Despite Texas preservice teachers being required to complete 150 clock hours of training to demonstrate "proficiency in ensuring high levels of learning, social-emotional development, and achievement" of students, preservice teachers seem to lack a complex understanding of the framework (Education Commission of the States, 2020). SEL is an essential framework that preservice teachers understand frighteningly little.

SEL, essentially, is a framework aiming to improve student achievement. Similarly, CRT hopes to improve student academic performance by utilizing classroom diversity as means of teaching.By third grade, culturally diverse students are "one or more years behind in reading" (Rucker, 2019). CRT is an effective tool that allows diverse students to actively combat the achievement gap. CRT is "using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching" (Gay, 2002). Culturally Responsive Teaching is predicated on the idea that academic knowledge and skills are more personally relevant, have higher interest appeal, and are learned more quickly and completely when situated within students' lived experiences and frames of reference. Instruction that is ignorant of student background and behavior sparks student defiance, while more relevant instruction and representation provoke student engagement (Wlodkowski& Ginsberg, 1995). In the 2017-18 school year, 79% of U.S. public school teachers were non-Hispanic White, while public elementary and secondary schools remained majority-minority (Schaeffer, 2021). In a field where

America's teachers are not representative of the racial and ethnic diversity inside the classroom, these teachers must hold explicit, complex knowledge of students' backgrounds and lived experiences. Being a culturally responsive teacher is not an easy task; it requires educators to foster open, raw conversations that allow students to analyze and face the different forms of "power, privilege, and marginalization that mark the classroom" (Bissonnette, 2016). It asks educators to tackle their own biases and recognize a harsh reality- racism is a living entity that impacts our daily lives, subconsciously or explicitly, positively, or negatively. Further, the instruction fully depends on educators' explicit knowledge about cultural diversity, an understanding that is "imperative to meeting the educational needs of ethnically diverse students" (Gay, 2002). CRT requires educators to have a "contextual understanding of how cultural heritages are developed and preserved" because, without such a deep level of understanding, misappropriations occur (Evans et al., 2020). Educators can too easily reframe students' cultures that perpetuate stereotypes in a sour attempt to be more culturally responsive; as such, it is important for educators to not only have a clear understanding of diverse cultures but also of CRT practices that "authentically activates" diverse students' experiences and perspectives (Evans et al., 2020).

Developing a more culturally relevant curriculum and pedagogy is one important way educators can allow CRT to inform their teaching. By providing more diverse, culturally responsive lessons, the academic performance of ethnically diverse students improves. Successful teachers of African American and Hispanic students were "proficient in infusing their students' culture throughout the teaching and learning process" (Siwatu, 2011). Despite the importance of CRT to an increasingly diverse classroom, many teachers and preservice teachers remain confused while planning for "peer assistance, native language use, and family and community involvement in their lessons" (Rose, 2015). A lack of knowledge of the theory's principles is also prevalent as many educators consider their subjects and cultural diversity "incompatible" (Gay, 2002). However, this belief does not consider the notion that CRT is not simply a rule for the classroom; rather, CRT is a "shift in mindset" that encourages a unique approach to planning and an overall, more representative classroom experience (Ferlazzo, 2021). The goal for teachers using CRT in the classroom is to become "warm demanders"- a structured teacher who does not lower standards or expectations for diverse students and is, rather, willing and able to help (Ware, 2006). Upon understanding this, teachers can utilize CRT in all subjects; for example, a science class assessing lead contamination in Flint, Michigan may also analyze environmental racism (Ferlazzo, 2021).

The benefits of using CRT can extend outside the classroom, as students whose cultures and experiences are represented and validated are "more open" to accepting and befriending students of diverse cultures, thus creating a more positive school climate (Campbell, 2021). CRT, at its core, is a lens that views student diversity as a benefit, as opposed to an obstacle. The framework reverses the "traditional view" of assessing poor academic performance that highlights barriers to learning and instead focuses on students' strengths, found in classroom diversity (Campbell, 2021). CRT is an important approach for teachers, yet undergraduate programs do not provide content to improve teacher candidates' cultural responsiveness (Karatas& Oral, 2019). Educator programs must prepare preservice teachers to enter increasingly diverse classrooms. Providing more diverse resources, encouraging teacher candidates to reflect on their background (racial identity, socioeconomic class, etc.), and helping preservice teachers distinguish between adequate teaching and culturally responsive teaching (Mburu, 2022). More explicitly, teacher educators can utilize facilitative texts to "scaffold" language and content regarding diversity-related subjects, combat myths and stereotypes about diverse families by using read-and-respond techniques and hold open, honest conversations, and connect diverse literature to real-world issues (Howard et al., 2018). The ultimate goal of education is not for students to be able to regurgitate

information and recite facts but to learn how to become functioning members of society, interact with others, and make logical decisions. By creating a classroom where all members are listening to one another and sharing their opinions, ideas, and experiences, a "great deal" of critical thinking transpires (Lenski, 2005).

These topics are extremely important in discussions of educating the whole child, yet there seems to be a fundamental lack of knowledge regarding the subjects. This misunderstanding motivated us to ask the question of what preservice teachers did know about the subjects. Therefore, our research objectives for this study are: (1) To assess if preservice teachers have the skills, knowledge, perspectives, and awareness to support students' social-emotional learning (SEL) and (2) To assess if preservice teachers are aware of culturally responsive learning (CRL).

Methods

For our research project, we administered a pilot survey to a group of 14 preservice teachers during the Spring 2022 semester. The pilot survey consisted of 38 questions published by Panorama Education. Based on these results, we narrowed our selection to 10 questions to guide our research. Following the pilot survey responses, a secondary study was conducted with a focus group of five preservice teachers in the Summer 2022 semester. The preservice teachers participated in a pre-survey consisting of the chosen ten questions that best-measured knowledge of social-emotional and culturally responsive learning. Following the pre-survey, preservice teachers participated in a lesson, learning about social-emotional and culturally responsive learning. Within the lesson, participants watched a short video regarding the impact of social-emotional learning on student academic achievement and character development. After the lesson, participants were guided in a self-reflective activity.

Participants were given a canvas, paints, brushes, and a pencil. They were told to divide the canvas into equal halves; on the bottom half, participants wrote any negative emotions and experiences they recently had. After, they chose a color to bury/paint over those feelings. Then, participants painted a tree trunk and branches to symbolize all the positive aspects of their life- emotions, people, hopes, etc. Participants were given creative freedom, following the completion of instructions, to create a piece that resembled all positive aspects of life. After participants completed their painting, they wrote a brief reflection on the day's lesson and activity. Additionally, they completed the post-survey, consisting of the same ten questions, to measure whatever knowledge and understanding gained.

Based on the responses from this project, we edited our survey, substituting two questions, and readministered the project during the Fall 2022 semester. The group followed the same methods as their predecessor, completing the edited pre-survey, lesson and activity, post-survey, and reflection. For the data analysis purpose, we combined summer and fall participants' data. The results were based on fifteen preservice teachers who completed all pre-mid-post assessments and completed the SEL activity.

Findings

The study findings are organized into two sections: 1. Pre-post-survey responses, 2. Activity and Reflections. Pre-post-survey responses are depicted in Figures 1-10 and self-reflections in Table 1.Overall, from the pre-survey to the post-survey, there is a positive shift in the data. The data shift highlights a greater understanding of SEL and CRT on behalf of preservice teachers. It also highlights a greater acquisition of knowledge of how to implement SEL and CRT into the classroom.The pre-post survey responses are organized by questions from one to ten and figures one to ten as follows:*Question 1: How confident are you that you can help your school's most challenging students to learn?*In the pre-survey, 30% of preservice teachers felt slightly confident, 30% felt somewhat confident, and 40% felt quite confident in their ability to help the school's most challenging students. Following the lesson and

activity, 20% of preservice teachers felt somewhat confident, 50% felt quite confident, and 40% felt extremely confident in their ability to help the school's most challenging students. From the pre-survey to the post-survey, there is a positive shift in the data, as preservice teachers grew more confident in their ability to engage with challenging students (Figure 1).

Question 2: How confident are you that you can engage students who typically are not motivated?

In the pre-survey, 30% of participants felt somewhat confident and 70% felt quite confident in their ability to engage with unmotivated students. In the post-survey, 10% felt somewhat confident, 40% felt quite confident, and 50% felt extremely confident in their ability to engage with unmotivated students. From the pre-survey to the post-survey, there is a positive shift in the data, as preservice teachers grew more confident in their ability to engage unmotivated students (Figure 2).

Question 3: Thinking about social awareness in particular, how confident are you that you can support a student's growth and development?

In the pre-survey, 40% of preservice teachers felt somewhat confident in their ability to support student's growth and achievement, 50% felt quite confident, and 10% felt extremely confident. In the post-survey, 10% of preservice teachers felt somewhat confident, 40% felt quite confident, and 50% felt extremely confident in their ability to support students' growth and achievement. From the Pre-Survey to the post-survey, there is a positive shift in the data, as preservice teachers grew more confident in their ability to support students' growth and achievement (Figure 3).

Question 4: How valuable are social-emotional learning (SEL) professional development opportunities?

In the pre-survey, 30% of preservice teachers felt SEL development opportunities were quite supportive and 70% felt they were extremely supportive. In the post-survey, 20% felt they were quite supportive and 80% felt such opportunities were extremely supportive. From the pre-survey to the post-survey, there is a positive shift in the data, as preservice teachers better understood the value of SEL development opportunities (Figure 4).

Question 5: Overall, how much do you learn about supporting your students' overall social-emotional learning (SEL) from school?

In the pre-survey, 40% of preservice teachers felt SEL content in school was somewhat valuable, 50% felt it was quite valuable, and 10% felt the content is extremely valuable. In the post-survey, 10% of preservice teachers felt it was slightly valuable, 50% felt quite valuable, and 40% felt it was extremely valuable. While there is a slight negative shift in the data, overall, the data sees a positive change, as preservice teachers grew more understanding of the value and importance of supporting students' SEL (Figure 5).

Question 6: How valuable are equity-focused professional development opportunities?

In the pre-survey, 10% of preservice teachers felt equity-focused development opportunities were not at all valuable, 10% felt they were somewhat valuable, 20% felt they were quite valuable, and 60% felt such opportunities were extremely valuable. In the post-survey, 10% of preservice teachers felt equity-focused development opportunities were not at all valuable, 40% felt such opportunities were quite valuable, and 50% felt they were extremely valuable. There is neither a positive nor negative shift in the data (Figure 6).

Question 7: Overall, how effective is your school in helping you understand/advance student equity?

In the pre-survey, 10% of preservice teachers felt the help they receive to understand and advance student equity was not at all valuable, 10% felt the help was slightly valuable, 30% felt it was somewhat helpful,

and 50% felt it was quite valuable. In the post-survey, 10% of preservice teachers felt the help they receive to understand and advance student equity was not at all valuable, 50% felt it was quite valuable, and 40% felt it was extremely valuable. Overall, there is a positive shift in the data, as preservice teachers grow more understanding of student equity (Figure 7).

Question 8: How comfortable are you discussing race-related topics with your students?
In the pre-survey, 10% of preservice teachers felt not at all comfortable discussing race-related topics with their students, 10% felt slightly comfortable, 10% felt somewhat comfortable, 50% felt quite comfortable, and 20% felt extremely comfortable. In the post-survey, 10% felt not at all comfortable, 20% felt somewhat comfortable, 30% felt quite comfortable, and 40% felt extremely comfortable discussing race-related topics. Overall, there is a positive shift in the data, as preservice teachers grew more comfortable discussing race and racial issues in the classroom (Figure 8).

Question 9: How comfortable would you be incorporating new material about people from different backgrounds into your curriculum?
In the pre-survey, 30% of preservice teachers felt quite comfortable incorporating new material from people with diverse backgrounds and 70% felt extremely comfortable. In the post-survey, 50% felt quite comfortable and 50% felt extremely comfortable incorporating new material from people with diverse backgrounds. From the pre-survey to post-survey, there is a negative shift in the data, suggesting preservice teachers felt less comfortable incorporating diverse curricula (Figure 9).

Question 10: When a sensitive issue of diversity arises in class, how easily can you think of strategies to address the situation?
In the pre-survey, 20% of preservice teachers felt they could address sensitive issues of diversity slightly easily, 40% felt they could do so somewhat easily, 30% felt they could do so quite easily, and 10% felt they could do so extremely easily. In the post-survey, 10% of preservice teachers felt they could address sensitive issues of diversity somewhat easily, 80% felt they could do so quite easily, and 20% felt they could do so extremely easily. Overall, there is a positive shift in the data, with preservice teachers more knowledgeable of ways to address sensitive issues of diversity (Figure 10).

Figure 10: Showing preservice teachers' responses to the question, "When a sensitive issue of diversity arises in class, how easily can you think of strategies to address the situation?"

Overall, the results suggest that 33% of the preservice teachers were more aware of SEL and CRT prior to the lesson & activity. 100% lacked an understanding of how to implement the theories. 100% of preservice teachers expressed a lack of knowledge regarding SEL and CRT as active players in the classroom. 100% of preservice teachers expressed a positive shift in the data. 66% saw more of a positive shift. 66% of preservice teachers saw more complacency. We believe we can attribute this to the difference in prior knowledge of the frameworks.

Discussion

In our study, we aimed to assess preservice teachers' knowledge and understanding of SEL and CRT. Unlike data collection found in existing literature, we collected data from a focus group (based on responses from pilot groups/surveys) that solely informed our findings. With a smaller group, we could better assess prior knowledge of both frameworks and content understanding and retention, another aspect we did not see in the existing literature. Like in the existing literature, we agree that both frameworks are increasingly important to student achievement. However, in our literature review and our study, we find that EPP seemingly does not address either topic with much depth. It is important that teacher candidates can enter the classroom equipped with the knowledge and skill to educate the whole child.

With that, we had two objectives for the study. Our primary objective was to assess if preservice teachers had the skills, knowledge, perspectives, and awareness to support students' SEL. EPP includes insufficient training and content for preservice teachers to completely understand and implement the SEL framework in the classroom (Weissberg &Cascarino, 2013). Due to this lack of SEL instruction, preservice teachers have little to no knowledge of the framework and struggle to find its initial value. Texas requires preservice teachers to complete 150 clock hours of training to demonstrate "proficiency in ensuring high levels of learning, social-emotional development, and achievement" of students. Yet, in our findings, our participants were not confident in their knowledge of or ability to do any of those aspects (Education Commission of the States, 2020).

Our second objective was to assess if preservice teachers were aware of CRT. Generally, undergraduate programs do not provide content that will improve preservice teachers' cultural awareness or the ability to utilize CRT in the classroom beyond theory (Karatas& Oral, 2019. Preservice teachers are not "adequately prepared" to use CRT and follow its principles (Evans et al., 2020). Like SEL, preservice teachers are not comfortable with CRT; they are not comfortable diversifying their instruction, nor are they prepared to enter and communicate with the increasingly diverse classrooms the field of education is seeing.

In both these circumstances, preservice teachers are not to blame. Our findings highlight an eagerness to learn and implement these frameworks on behalf of the preservice teachers, an attitude undescribed in the existing literature. It is the responsibility of EPP to do more than simply teach these topics, though that requirement is not quite met. EPP must embody these principles so preservice teachers can witness their successful implementation in classroom settings. EPP has an important task to ready teacher candidates for the realities of the classroom. In doing so, must evolve curriculum and instruction in a way that prepares teacher candidates and allows students to succeed further.

Implications

SEL is necessary for teaching. It gives students the tools to properly identify, manage, and cope with emotions; in turn, these students can better focus on academic instruction. Once teachers can understand students' well-being and students can understand their well-being, academic performance improves. Similarly, with CRT, when students feel seen and represented in their lessons, they pay more attention and perform better on academic measures. This study highlights an unfortunate fact- preservice teachers are unaware of these beneficial frameworks, and educator-prep courses are not updated with the theories necessary for the modern classroom.

Recommendations/Future Studies

In future studies, we hope to examine in-service teachers' ability to understand and implement these frameworks. We would also look at how these frameworks would work at an administrative level.

Acknowledgements

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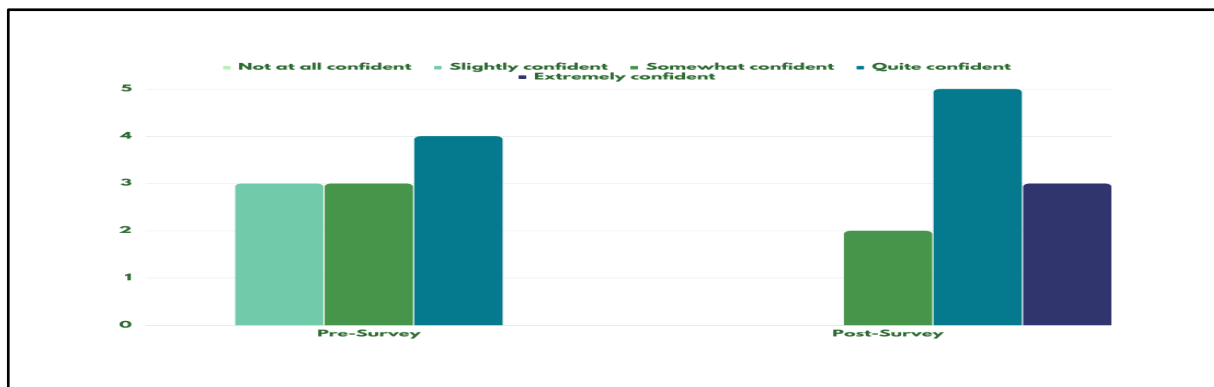
Figure 1: Showing preservice teachers' responses to the question, "How confident are you that you can help your school's most challenging students to learn?"
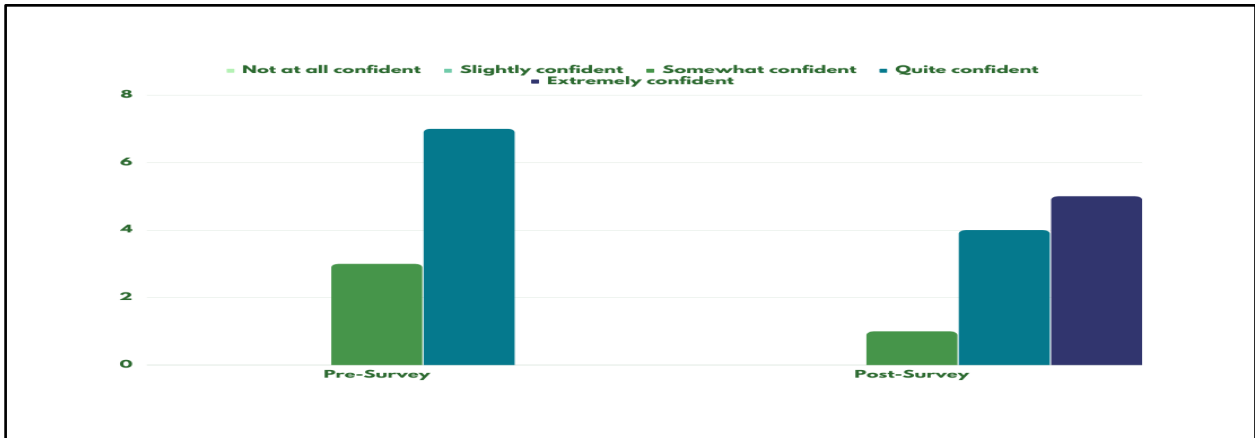
Figure 2: Showing preservice teachers' responses to the question, "How confident are you that you can engage students who typically are not motivated?"
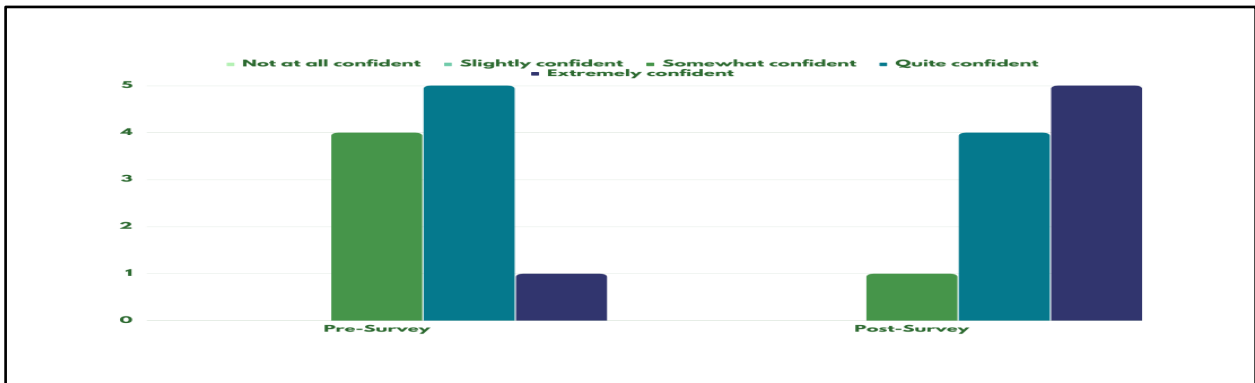

Figure 3: Showing preservice teachers' responses to the question, "Thinking about social awareness in particular, how confident are you that you can support a student's growth and development?"
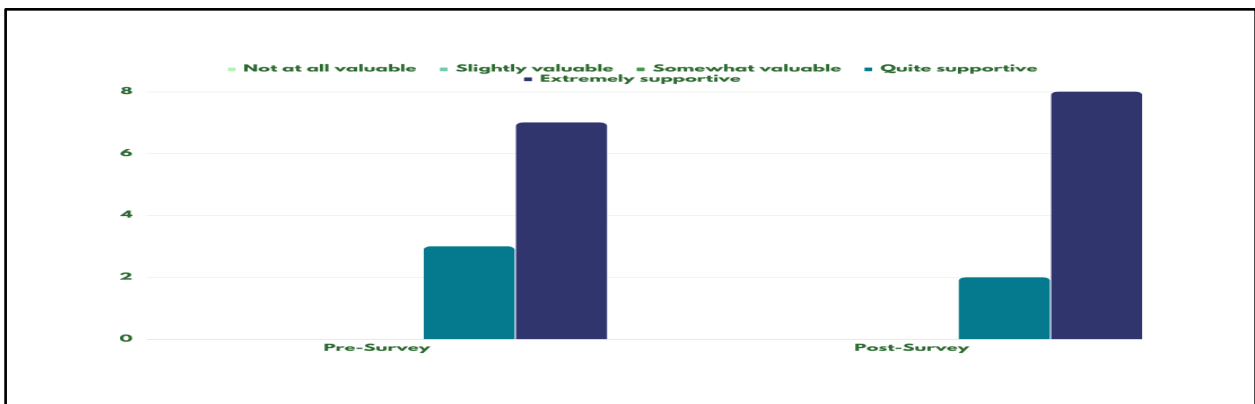
Figure 4: Showing preservice teachers' responses to the question, "How valuable are social-emotional learning (SEL) professional development opportunities?"
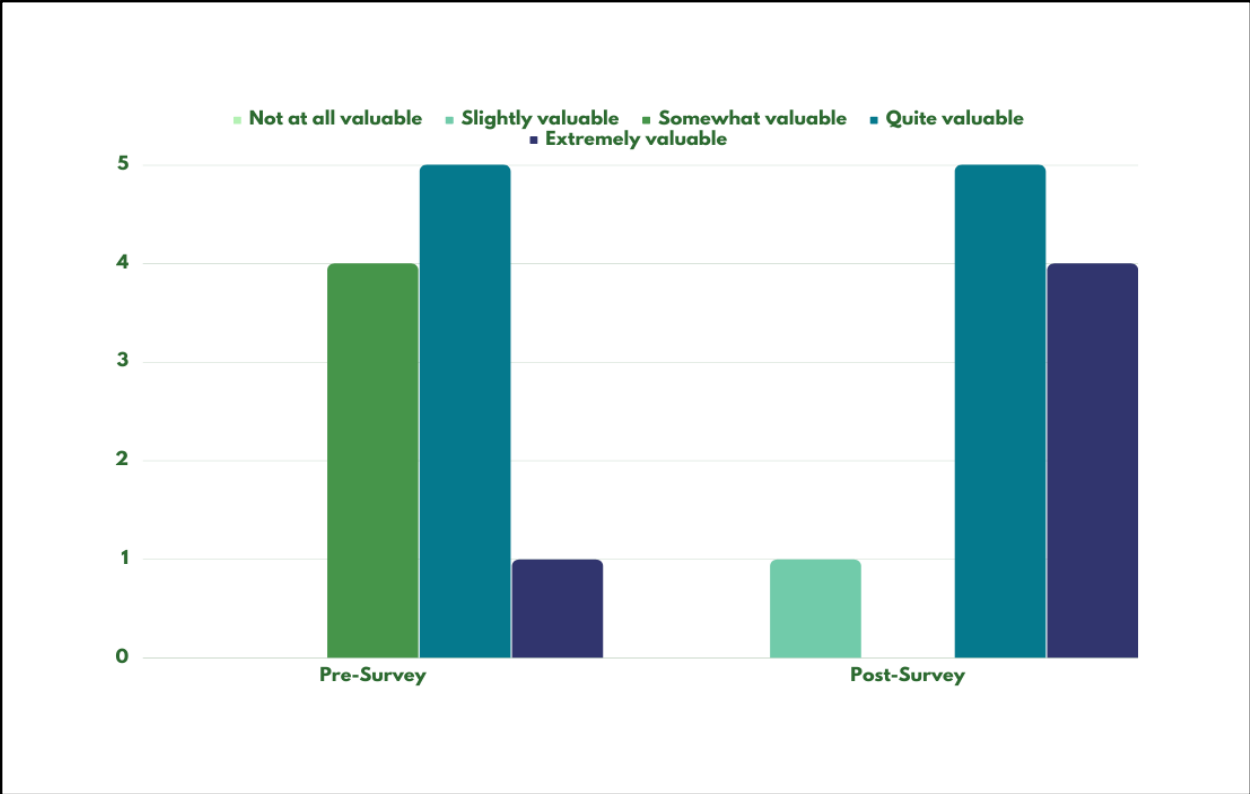

Figure 5: Showing preservice teachers' responses to the question, "Overall, how much do you learn about supporting your students' overall social-emotional learning (SEL) from school?"
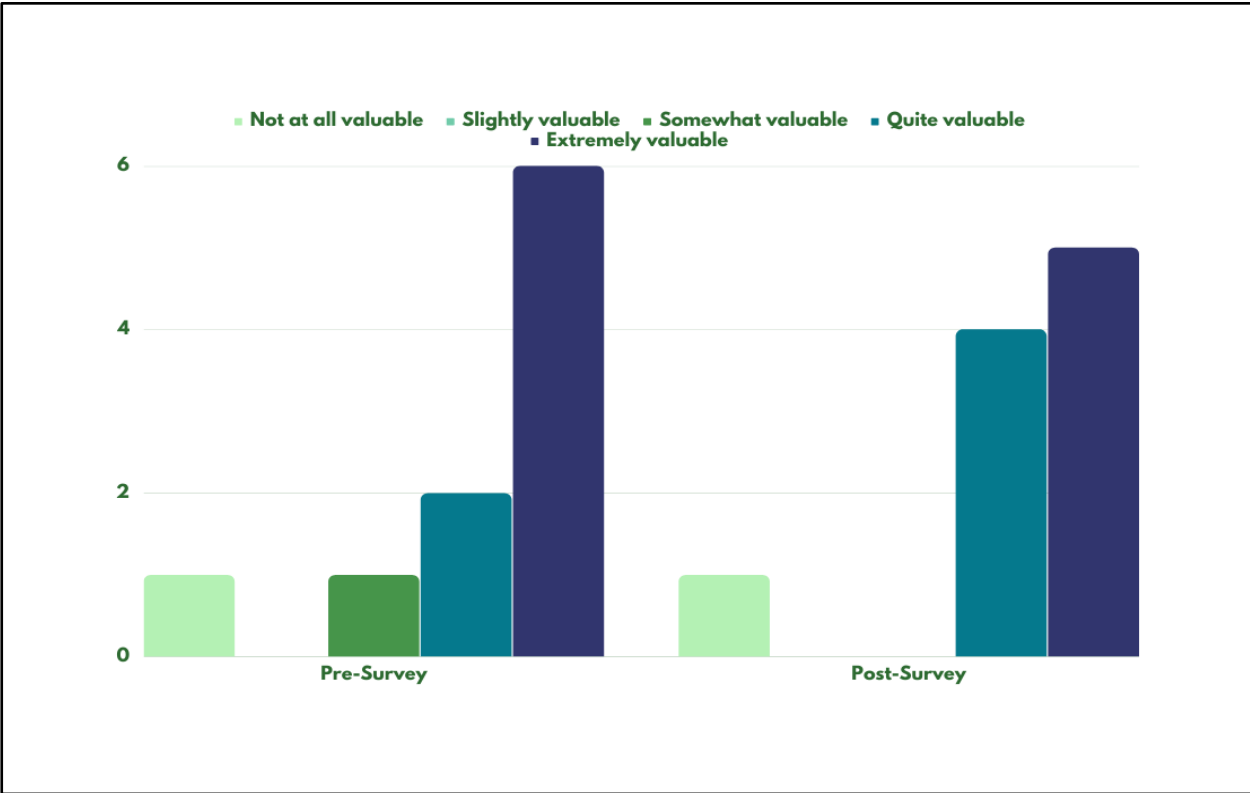
Figure 6: Showing preservice teachers' responses to the question, "How valuable are equity-focused professional development opportunities?"
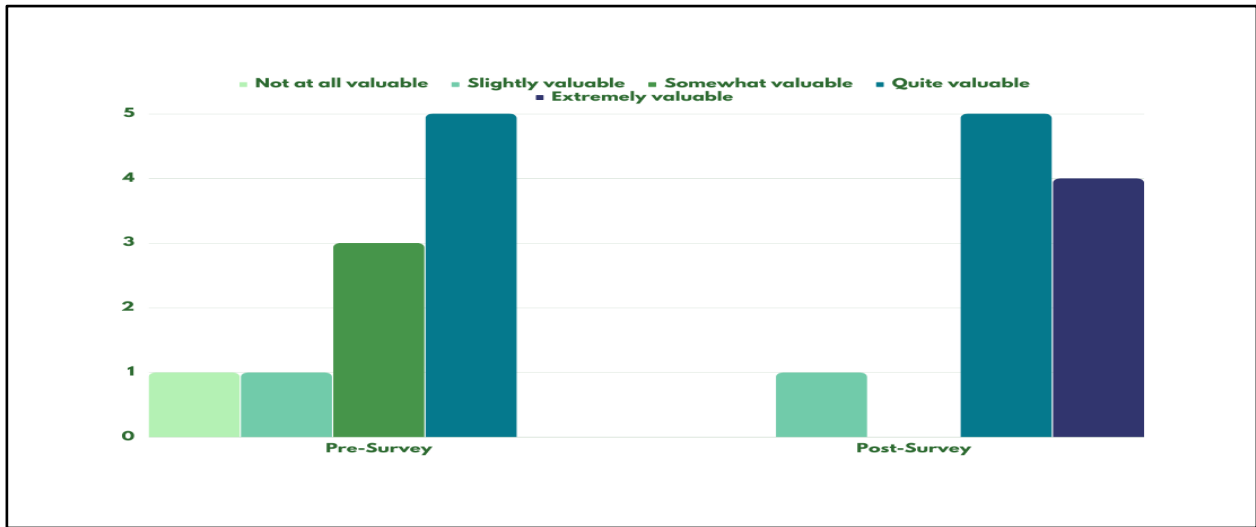
Figure 7: Showing preservice teachers' responses to the question, "Overall, how effective is your school in helping you understand/advance student equity?"

Figure 8: Showing preservice teachers' responses to the question, "How comfortable are you discussing race-related topics with your students?"

Figure 9: Showing preservice teachers' responses to the question, "How comfortable would you be incorporating new material about people from different backgrounds into your curriculum?"

Figure 10: Showing preservice teachers' responses to the question, "When a sensitive issue of diversity arises in class, how easily can you think of strategies to address the situation?"

Table 1: Preservice Teacher's self-reflection on SEL & CRT

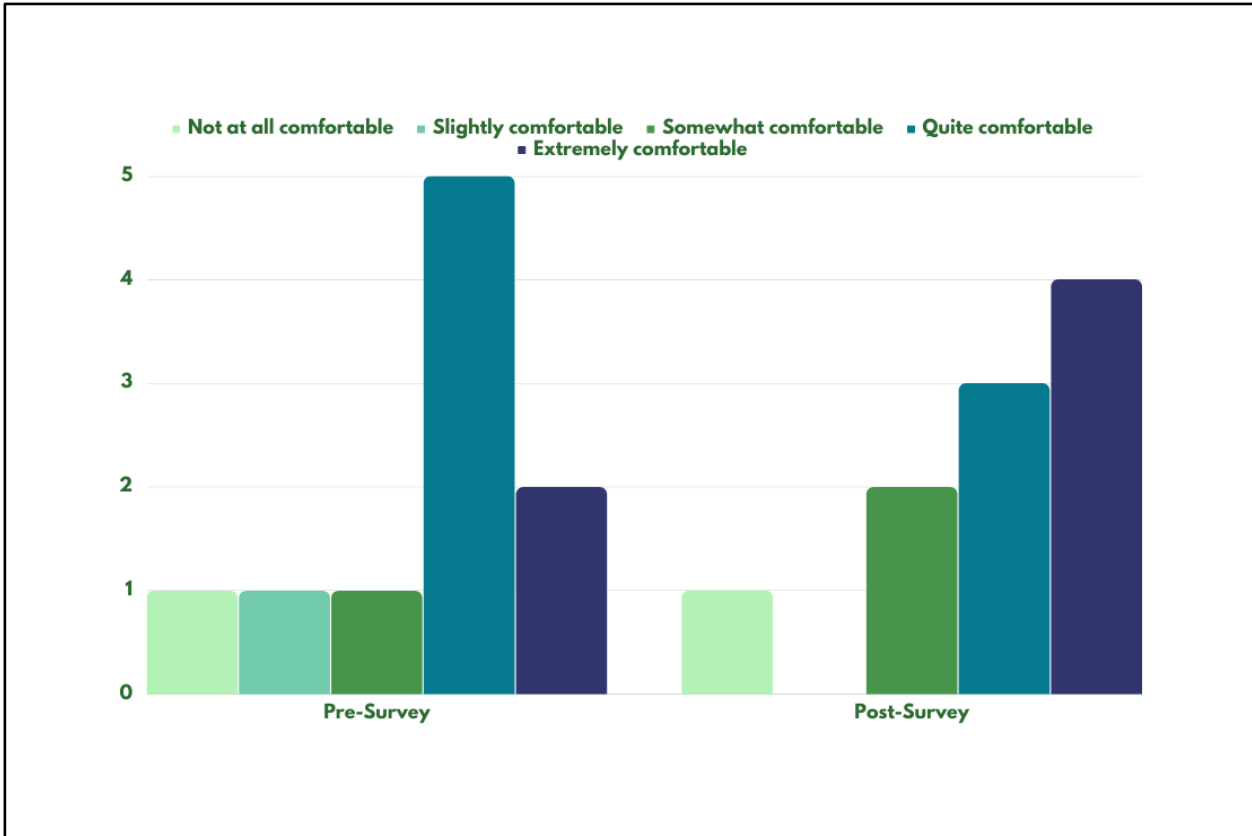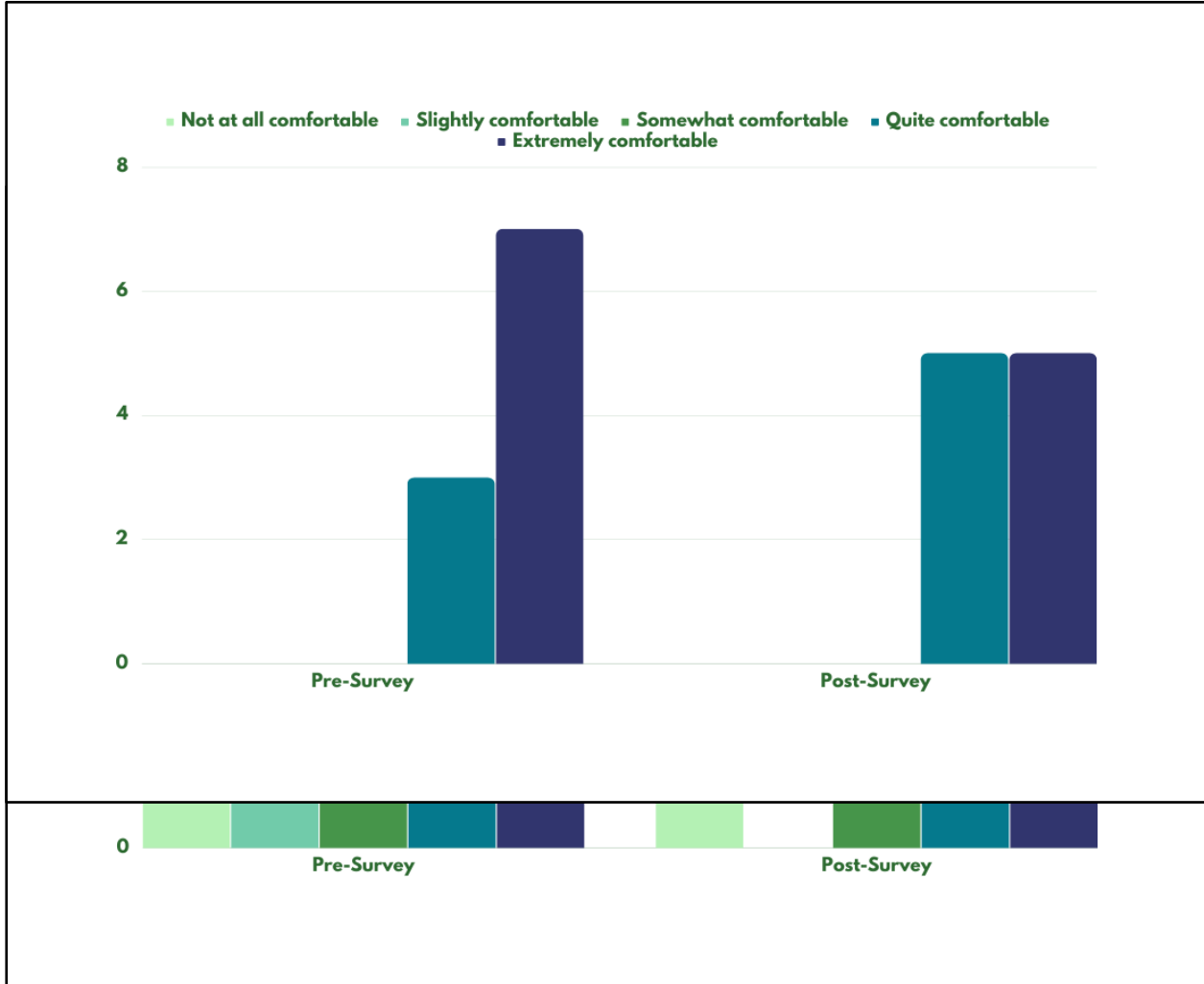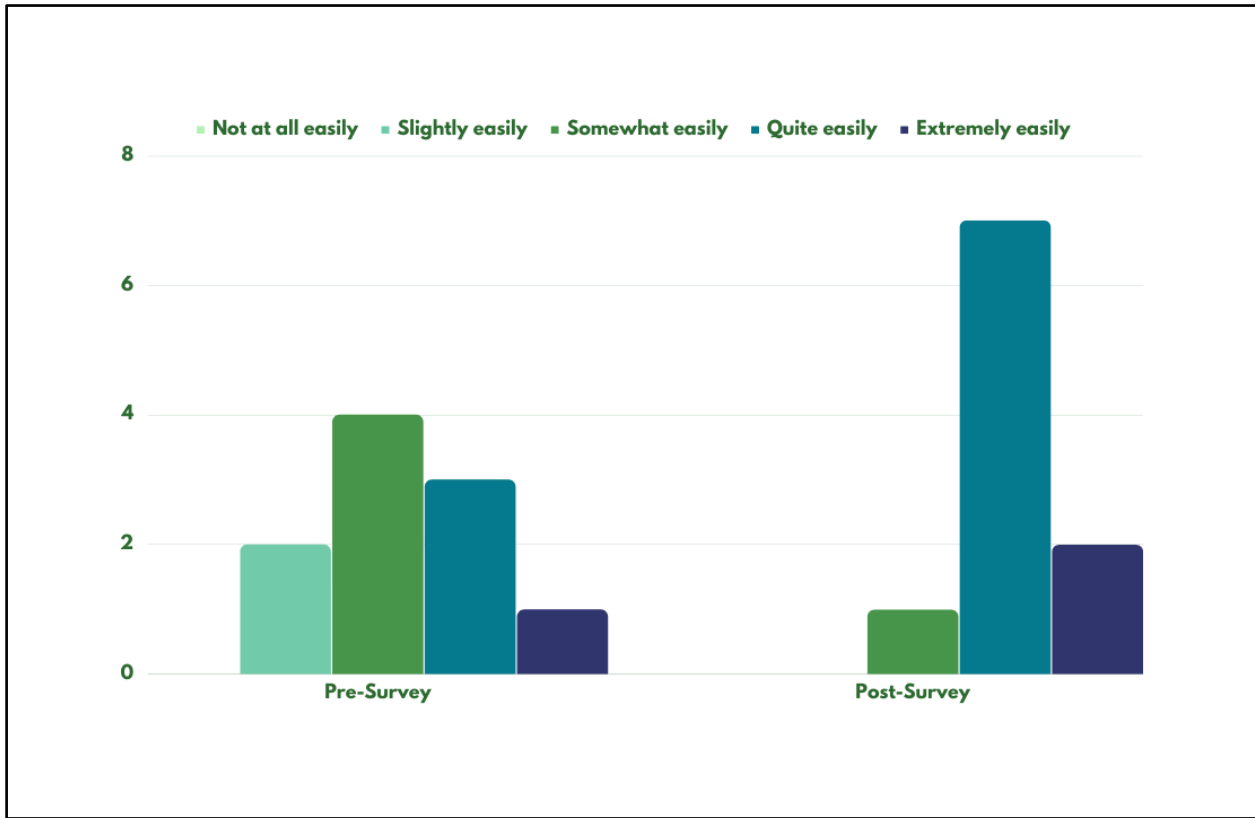| Preservice Teacher	Reflection
Participant 1	The participant reflected on the activity, saying it allowed her to "understand the importance of SEL and CRT."
Participant 2	The participant reflected on the significance of CRT, specifically, how to implement the framework in the classroom. She commented on "the importance of an inclusive library."
Participant 3	The participant admitted that, while she had prior knowledge of both frameworks, the lesson and activity gave her a greater understanding of culturally responsive teaching.
Participant 4	The participant admitted she had prior knowledge of both frameworks beforehand. She shared the most impactful part of the lesson was the statistics regarding SEL and CRT implementation. She said it "made [her] realize how important" the frameworks were.
Participant 5	The participant shared that the lesson was good and helpful.
Participant 6	The participant shared she appreciated the lesson. She also shared the activity was

	enjoyable and admitted she didn't realize SEL could be implemented in such a way.
Participant 7	The participant shared that the activity "was a good stress reducer". She also shared her excitement to use this with her own students to implement SEL and reduce stress.
Participant 8	The participant realized the importance of emotional regulation and the "positive impact on learning and teaching" it can have. She reflected on the importance and necessity of SEL.
Participant 9	The participant shared that, while she was familiar with the frameworks beforehand, learning examples of how to incorporate SEL and CRT in the classroom was helpful. The lesson helped her reflect on the importance of SEL and students' learning process and achievement.
Participant 10	The participant shared her plan to implement both frameworks in the classroom. She also shared a personal narrative regarding the cultural ignorance of a past teacher, concluding by communicating that learning about the framework has helped her re-evaluate her own teaching philosophies.
Participant 11	Student A stated she learned topics that, before, she was unfamiliar with. She admitted that the SEL activity helped her understand negative and positive emotions and the necessity to "learn to grow from your negative side into something positive."
Participant 12	Student B stated she learned that "a lot of people we are taught in school are white-based." She admitted that the lesson and activity made her reflect on this notion. She learned that showing more diversity in classroom instruction helps students of all cultures and ethnicities.
Participant 13	Student C learned the importance of social-emotional learning and the importance of observing students' emotions. She stated that "teachers must be able to recognize problems and address them." She learned that for SEL to be effective, it must be implemented outside of just the academic environment. She also learned how SEL can positively impact academic performance.
Participants 14	Student D learned about the positive relationship between SEL and academic performance. She also reflected on how SEL can create more positive emotions and a more positive environment as students learn to emote in healthier ways.
Participant 15	Student E learned that "helping students with managing their negative emotions promotes less disruptive behavior in the classroom." She also reflected on the importance of acknowledging cultures and integrating these varying cultures into the lesson, as students can feel seen and represented. She reflected on the importance of community and the positive relationship between a safe and healthy community and students' well-being.

Closing Education and Equity Gaps of Latinas

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Introduction: why the emphasis on Latinas?

There was a period from the end of World War II until the 2008 recession when ethnic minorities experienced a general increase in socioeconomic status. The rise of the movement for civil rights and women's rights was ushering in a period of what seemed to be unprecedented social progress. At the intersection of women's rights and minority rights are Latinas in the US. As part of the largest ethnic category (Latinx/Hispanic) in California and the second largest in the country, the social status of Latinas provides a forecast of general indicators of equality for women and minorities. The last two recessions have marked a distinct fall in economic well-being for Latinas. This study strives to document the growing economic and educational equity gaps for Latinas. In addition, awareness of educational inequities will lead to constructive ways to regain lost ground in attempting to close the earnings and education gaps Latinas face.

Over the next few decades, the United States will be more ethnically diverse. California is now undergoing a demographic transition that resembles what the rest of the nation will experience in the next generation. The 1970 US Census shows 76 percent White and 13 percent Latinx shares of the population in California. By 2020 the ethnic proportions flipped, with Latinx becoming the majority at 39 percent, while the share for the White population decreased to 35 percent in the state. Moreover, Latinas are the largest ethnic group of women, comprising 40 percent of all females in California (California Department of Finance, 2021). These statistics provide credence to the notion that the future status of Latinas is indicative of the welfare of groups that can claim intersectionality with them. What will happen to the progress that has stalled for minority group equity when minorities become (as in California) the majority in the nation? What will happen to the national goal of racial justice? What will happen in the arena of women's rights and associated issues when problems get compounded for Latinas who belong to the LBGT community? The answers to these questions of intersectionality are incredibly potent and form an overarching narrative. Latinas are the mothers of 55 percent of all children attending California's public schools (*Left Out Report* by Campaign for College Opportunity, 2018). The well-being of these mothers and their girls will signify a better future for Californians and, by extension, a brighter prospect of an inclusive society in the US.

Latinas on losing ground

Latinas are 20 percent of California's population and 10 percent of the US population. In addition, 43 percent of California's mothers are Latinas, so what happens to their economic and social status powerfully impacts the collective future of all families (*Leading with Hope*, 2020). Latinas have had real problems recovering from the last two US recessions. Just before the 2008 recession, the Economic Policy Institute reported that 47 percent of home mortgages for home purchases by Latinx households were subprime mortgages. These loans charged exorbitant interest rates, and many families were unaware that their monthly payments could rise by several hundred dollars after the initial five years of the loan (adding, on average, $100,000 of payments for a subprime mortgage). According to a report by the Center on American Progress (2012), 25 percent of mortgages for Hispanic households went into default between 2007-2009 (Weller & Ahmad, 2013). According to the report, before the recession, in

2007,the homeownership rate for Latinx households was 49 percent and fell to 46.7 percent by 2011. In addition, the wealth gap between White and Latinx families increased during the 2008 recession. White households, by comparison, had a homeownership rate of 74.9 percent homeownership in 2011.

US household wealth fell by 30% in the first three years of the 2008 Great Recession but held steady in the next three years for White, non-Hispanic households. As White household family wealth stabilized during the recovery phase from 2011-2014, Latinx wealth fell another 20%. Consequently, Latinx household wealth was cut in half by the recession of 2008. In 2019, just before the Covid downturn of 2020, the wealth gap had widened as the average Latinx household's wealth was $20,700 compared to $171,000 for White households (*2019 Survey of Consumer Finances*, US Federal Reserve Bank).

The recent economic downturn caused by the Covid19 pandemic further widens equity gaps for Latinas. A study by Hispanas Organized for Political Equality (HOPE) found that "Latinas have been disproportionately affected by the economic downturn and by the health effects caused by the Covid-19 pandemic: 28.9% of Latinas lost their jobs through May 2020, compared to 9.4% for White women." (Macias, 2021, p. 8). Data on earnings show further deterioration of the economic standing of Latinas. The *HOPE 2020 Economic Status of Latinas Report*captures their economic decline in California as follows: "Latinas earned only 42 cents for every dollar earned by a White man in 2019, a wider pay gap than in 2011 when Latinas earned 45 cents for every dollar earned by a White man. The lifetime cost of the wage gap over a 40-year career for the average Latina in California is $1,787,640 compared to the average White man." (Macias, 2021, p. 10).

The Latina Representation Paradox

How can it be that those women most impacted by the pandemic are among the least represented in the highest levels of government? Latinas need to be a large part of recovery and relief efforts because they are such a large demographic. Considering that nearly half of all Latinx heads of households are female, it is apparent that the welfare of Latinx families (one in five families in the US) is a significant determinant of the well-being of all families. NBC News (February 6, 2022) reports that "Latinas are the largest group of women in the U.S. workforce, after non-**Hispanic** Whites, but ***about 3 percent of members of Congress***." This representation gap corresponds to the lack of comprehensive programs that are badly needed to help these women and children most neglected and affected by growing inequities.

There are currents in society that can lead to a turnaround in the troubling trends cited above. The recent pandemic has underscored the critical role that Latinas play. Latinas are a significant portion of the essential workers necessary to the economy during the height of the pandemic. However, during the pandemic, many had to leave the workforce because of pandemic-related school closures. Latinas have more school-age children per family and, thus, had been three times more likely to exit the workforce compared to White women (according to a study of the pandemic's impacts by the University of Washington's Latino Center for Health (2021). Essential as workers and necessary to their families, Latinas were resilient. Those who did remain in the workforce saw their wages rise as the pandemic underscored their importance.

Despite setbacks over the past decade, there are reasons to be optimistic about a turnaround. Latinas arecomparatively young, so young that their vast demographic makes the nation much younger. In 2015 *The Economist* reported: "The median age of Whites is 42; of Blacks 32; and of Hispanics 28. Among American-born Hispanics, the median age is a stunning 18. As other parts of the rich world face a future of aging, shrinking populations, Hispanics are keeping American schoolyards full of children and replenish the supply of future workers" ("From Minor to Major," 2015).Thus, with their comparatively high birthrates, young Latinas will provide the future US labor force necessary for a fiscally healthy dependency ratio. In California, Latinas are mothers to half of all children in K-12 public schools. It is incumbent that this next generation possesses the skills necessary to continue growing the high-tech economy of the future. Progress in the US is synonymous with enhancing the social mobility of Latinas and their children. We address this essential educational mission in the next section of the paper.

The challenging educational mission

The school closures during the coronavirus pandemic politicized public schooling and led many to question the social compact of universal compulsory public education systems. In California and many

other parts of the US, there is a marked decrease in K-12 public school enrollments. A recent Pew Research poll (2022) included education among the country's "very big" problems, with 58 percent indicating that education is important to them. According to the August 2022 poll, registered voters care more about education than abortion, immigration, and climate change. Now the nation is at a critical historical moment, as charter schools, private schools, and homeschooling have complicated the mission of universal public schooling in the US.

The mission of public education should not change. Providing a quality publicly provided universal education will ensure social mobility. Moreover, adherence to this mission of public instruction for all will advance future college-age Latina students. This sizeable demographic group has been historically underrepresented in higher education, extending to the need to increase their representation in professional occupations and as government officeholders. Excelencia in Education, an educational nonprofit organization, reports: "Latinos are more likely to be first-generation college students than any other racial or ethnic group: More than 4 in 10 (44 percent) Hispanic students are the first in their family to attend college. " (NBC News, 2021)

In California, most Latinas start their educational journey in higher education at community colleges, with low persistence and completion rates. The resulting education gap must beabolished to provide a highly skilled workforce needed for the future. A Public Policy Institute of California study on increasing diversity and equity in higher education in California (Johnson, Mejia, & Rodriguez, 2019) underscores the need to focus on Latinas, stating that: "underrepresented students are less likely to complete college. For example, among young adults who were born in California, 58 percent of Asian Americans and 41 percent of Whites have at least a bachelor's degree, compared to 25 percent of African Americans and 20 percent of Latinos. " (Johnson, Mejia, & Rodriguez, 2019). Latinx students are the most underrepresented ethnic group.

Furthermore, a huge education gap exists between White women and Latinas. In 2018, the percentage of Latinas with a Bachelor'sdegree was 15 percent in California, a two percent increase from 2011. Compare this to 43 percent of White women with a Bachelor's degree, which comprises a higher education gap of 28 percentage points.   Thus, Latinasare severely under-represented in higher educationsuccess.

Economic class and race problems intersect in a way that retards progress in addressing the Latina education gap. The bridge to college is difficult to cross because of segregation. School segregation persisting 65 years after Brown v. Board of Education keeps Latinas behind in college preparation. According to the HOPE foundation, only 50 percent of Latinas graduating from high school in California have fulfilled their college preparation course sequence. Most attend community college, with a dismal 20 percent transfer rate to four-year universities in California. A higher education plan is underway in California to address these issues in a long-overdue mission to promote higher transfer rates from community colleges to the four-year university system.

Latina leadership in the Academe

Nowhere are the obstacles to social mobility more evident than in the ladder that connects Latinastudents to higher education through hiring, tenure, and promotion processes. There exists a specific pipeline problem in higher education. The pipeline of Latina PhDs to serve as mentors and role models for Latinas entering four-year institutions of higher learning is small relative to the size of Latinas asa group of first-year students. For example, in the California State University system, 43 percent of the students are Latinx compared to 10 percent Latinx tenured and non-tenured teaching faculty. In addition, it is challenging to remedy this under-representation problem when Latinx doctorates are only 15 percent of the doctorates awarded at the University of California campuses across the state.

The lack of post-graduate students representing the Latinx demographic and for Latinas, in particular, needs to be addressed. Part of the solution lies in coming to grips with the intersection of geographic segregation by race and class, where Latinas begin their educational journey.   Another key to advancement for Latinas lies in increasing avenues by which Latinas can actively serve as role models and mentors, recognizing the cultural taxation for Latinas who have achieved leadership positions in higher education.

While California is known as a land of opportunity, another side to the narrative is not so rosy. Housing segregation in the state is quite pronounced. A study from UCLA shows that California is the most segregated state for Latinos. (*Integration and Diversity Study*, UCLA Civil Rights Project, 2019). This research reveals that California is a state where 58% of Latinx students attend intensely segregated schools, exacerbating inequities in educational opportunities. Thus, despite the state's growing diversity, its schools are highly segregated by race and income. The pattern of segregation is also widespread throughout the nation. UC Berkeley researchers found that "81% of U.S. metropolitan regions with at least 200,000 residents were more segregated in 2019 than they were in 1990. " (*Roots of Structural Racism Project,* UC Berkeley, 2021). The result is that Latinas (the most impacted group in terms of the intersectionality of race, class, and gender) fall behind in measures of academic achievement and, hence, are underrepresented in terms of attending and finishing college degree programs. Highly segregated schools generally correspond to lower academic performance for ethnic minorities, but the problem is most acute for Latinas. **Turning challenges into opportunities for Latinas**

An obvious opportunity for promoting educational equity for Latinas is ending housing segregation to end segregation in schools. Harvard University's *Opportunity Insights Program* has demonstrated some success by relocating low-income minority families into structurally integrated neighborhoods. However, there are doubts about the political feasibility of scaling up these successful pilot programs.

If bringing children to better neighborhoods is not feasible, then California is trying to level the academic playing field for Latinas by bringing programs to them where they live. While this does not directly address the roots of structural racism, two programs instituted in California will help Latinas. First, there is California's $ 4.7 billion implementation of universal pre-kindergarten/ transitional kindergarten (TK) for all 4-year-olds in the state. Many Latino families live in segregated, low-income communities. As a result, they often start school academically behind their middle and upper-income peers. The California Department of Education states that "universally available TK means that by *2025–26*, regardless of background, race, zip code, immigration status, or income level, every child whose fourth birthday occurs by September 1 will have access to TK at a public school as a quality learning experience the year before kindergarten—at no cost to the family. " (*California Department of Education Sacramento 2018 2030 Speak Learn Lead*, 2018).The second program aims to support young Latinas entering school with limited English proficiency because Spanish is the primary language used in their homes. About one out of every five K-12 students have limited English proficiency in California.

Furthermore, "immigrants comprised 40 percent of all parents of children ages 0 to 4 and 45 percent of all parents of children ages 5 to 10 in California. " Most of these immigrants are Latinx and Spanish-speaking, comprising 82 percent of the English Learners in California public schools (*California Department of Education Fast Facts*, 2021). Martha Hernandez, executive director of Californians Together (an organization advocating for non-English native speakers), characterizes the problem for many Latinas as follows: "For over 20 years, California proposition (227) almost eliminated bilingual education. And of course, we did not end up with good results in many ways. We did not have good academic results. The gap between English learners and English proficient students was getting bigger. And students really lost their identity and sense of belonging." (Miranda, 2022).

In recent public policy documents, California directly addresses the need to increase bilingual education in public instruction. However, there is a vast, unmet need for funding that has yet to come forth to meet the ambitious state goals for Bilingual literacy. The push to expand bilingual education began in 2016 with legislation encouraging districts to be more responsive to community requests to provide and fund dual-language instruction. The Sacramento Bee reported that "as of the latest data in 2018, the state had 747 dual-language immersion programs, according to the California Department of Education. That's an increase from 407 in the previous year." (Miranda, 2022).

In 2019 the California Department of Education (CDE) announced a new program to enroll half of the K-12 students in dual language literacy programs. CDE estimates it would need to add another 1,600 dual language programs state-wide to meet its goal. However, the funding of these programs is seriously in question. The state legislature failed to get a recent bill (SB952, 2022) through the Appropriations Committee, a bill that would have provided funding for dual-language programs to at least 20 districts.

Last year, a similar proposal giving grants to 27 districts and charter schools to expanddual-language programs did pass. However, 160 districts applied for these scarce funds, underscoring the need to put more funding forward in the future.

Thus far, the paper maps out solutions involving pre-K and K-12 policy solutions. However, to be genuinely comprehensive, education policy to help Latinas needs to squarely address the fact that no other demographic is as underrepresented in higher education leadership as Latinas. Moreover, Latinas find it challenging to navigate the wide achievement gaps cited earlier in an environment where their college enrollment and completion rates fall behind their White and economically privileged peers. For example, the percentage of Latinx students (43 percent) enrolled in the California State University system is roughly three times greater than the percentage of doctorates awarded by California's Universities (only 15 percent Latinx PhDs).

Furthermore, 62 percent of tenured faculty are White compared to 10 percent Latinx tenured faculty in the California State University system. According to data from the National Center for Educational Statistics for California State University, there are 208 Latinx students for each Latinx faculty member. By comparison, there are 18 White students for every White faculty member. For Latina teaching faculty, the imbalance of representation means the added burden for Latina faculty who must balance being advisors, advocates, and role models for their Latina students with the traditional demands of research and publishing in the academic arena. This added burden on Latina faculty is known as "cultural taxation" and is an added burden on junior faculty seeking tenure at the university and for other leadership positions (Canton, 2013).

The burden of cultural taxation would be lighter if there were a greater emphasis on closing the educational equity gaps at all levels of the academic ladder. For this to happen, there needs to be a general recognition by policymakers and institutional leaders of the need for comprehensive programs backed up by funding resources that focus on creating equity in higher education.

The trends taking shape in California, its demographic shifts, and its policy direction can provide a path for the nation's future. Latinas, as 40 percent of California's women, clearly play a pivotal role in the future of the state's children. Prioritizing educational mobility for Latinas means putting California's families and future first, pointing the way for the nation to reverse the negative trend toward greater inequality that confronts US society today.

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Winner of Student Paper Competition

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Statistical Analysis of Consumer Perceptions of Krispy Kreme

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April 13, 2022

Abstract

The focus of this research project was to assist a local business, Krispy Kreme, to improve their marketing tactics and strategies. Also, to see customer perceptions of Krispy Kreme based on prior knowledge and experience of service; our research group used research tools like Likert and demographic questions all to analyze customer's answers towards Krispy Kreme.

Using Qualtrics to easily disperse a questionnaire, we were able to collect a sample of 385 usable responses from a random sample. We analyzed the data through an application known as SPSS (Statistical Package for the Social Sciences) to develop meaningful conclusions and recommendations.

Approximately, 81 percent (80.73%) of respondents agree or strongly agree on recommending Krispy Kreme to a friend. This led to a recommendation that Krispy Kreme rely on the customer to expand their market by word of mouth.

T-Tests showed that there was no significant difference between males and females with any of the compare data. This is a significant finding for Krispy Kreme.

Regression analysis showed that overall satisfaction of Krispy Kreme is good place to eat was dependent on the company's donut quality, the variety, the idea of creating a donut, and the idea of collaboration with other companies. Another regression showed that Krispy Kreme being perceived as a good donut place to be recommend to a friend, was determined by Krispy Kreme's donut quality, the response by respondents to have more Krispy Kreme locations, the preference for Krispy Kreme's donuts rather than Dunkin donuts, and respondents buying misshapen donuts at a discount price if Krispy Kreme sold them.

Recommendations included that Krispy Kreme should make more marketing efforts towards attracting more diverse customers. Krispy Kreme also needs to have more locations to improve in sales as well as convenience, for customers to enjoy the Krispy Kreme donut experience.

Statistical Analysis of Consumer Perceptions of Krispy Kreme

The Krispy Kreme franchise was selected for this projectdue to thesatisfying experience students have had at the well-known donut chain. "When it comes to a hot, plain, glazed donut, Krispy Kreme is hard to beat. Their donuts are popular, delicious and addictive enough, that comedian Chris Rock insists crack must be an ingredient" (Emma Roberts, 2018).

Founded in 1937, Krispy Kreme create their donuts with the same exact recipe that was create 84 years ago. Comparatively, Dunkin' is 14 years younger and serve similar items. In other words, we decide to compare Krispy Kreme to Dunkin to see the overall difference in responses between the two.

In addition, we all thought Krispy Kreme was an easy business topic to use in creating a survey to complete our sample size of 385, since Krispy Kreme is widely known."Today, they have over 1,000 locations in 27 different countries, and a loyal following worldwide" (Emma Roberts, 2018). In other words, that made it easier as a group, to find as many respondents as possible.

A major contribution of this paper is to demonstrate how statistical analysis in social science research can be used to improve the products and services of a business. Thus, the influence of this paper goes far beyond any one business.

Methodology

Throughout the survey, we usedLikert, nominal, and ratio scales to collect data from respondents. However, the scale that was mostly used was a Likert scale. The Likert scale help us understand if respondents agree or disagree about various Krispy Kreme attributes. Nominal scales were used to learn the race or genderof our sample. A ratio scale was used for age and in another question, to learn the values in what matters mostto the respondents through allocation of total of 25 points.

The completed copy of the questionnaire is in the Appendix. The data was collected in several creative ways from a QR code, air drop of links, and sending out surveys through text. One of the ways that we collected data was by tailgating at one of the West Georgia football games and setting up a booth at the game, while getting people to do surveys for Krispy Kreme's donuts. The second way was passing out Krispy Kreme donuts to individuals who completed the survey in the College of Business. Thirdly, we asked people to take the survey to help us out from different locations. Fourth, we emailed students in different classes our survey. Lastly, we finally asked all our immediate family for help and to spread our survey to their friends and beyond. Throughout these multiple ways, we were able to successfully get the minimum sample size required.

Analysis

We analyzed the 385 responses from Qualtrics using the Statistical Package for the Social Sciences (

1. Data Summary
2. Hypothesis Tests: Independent Samples T-Tests (Differences Between Means)
3. Tests of Association: (i) Chi-Square Tests, (ii) Correlations, and (iii) Regression Analysis

Data Summary

Overall evaluation of Krispy Kreme as being a Good Place to Eat

As shown in Figure 1[1], overall, Krispy Kreme is found to be a good place to eat, according to the research. With a sample size of 385, about 79 percent (78.7 percent) of respondents agree or strongly agree with the statement.Respondents think Krispy Kreme is a decent location to eat overall, with an average of 4.10 on a 5-point Likert scale, 1 being strongly disagree and 5 being strongly agree.The managerial conclusion is that, given that just roughly 6% (5.98%) of respondents decided to disagree or strongly disagree, we recommend that Krispy Kreme stick with their existing strategy.
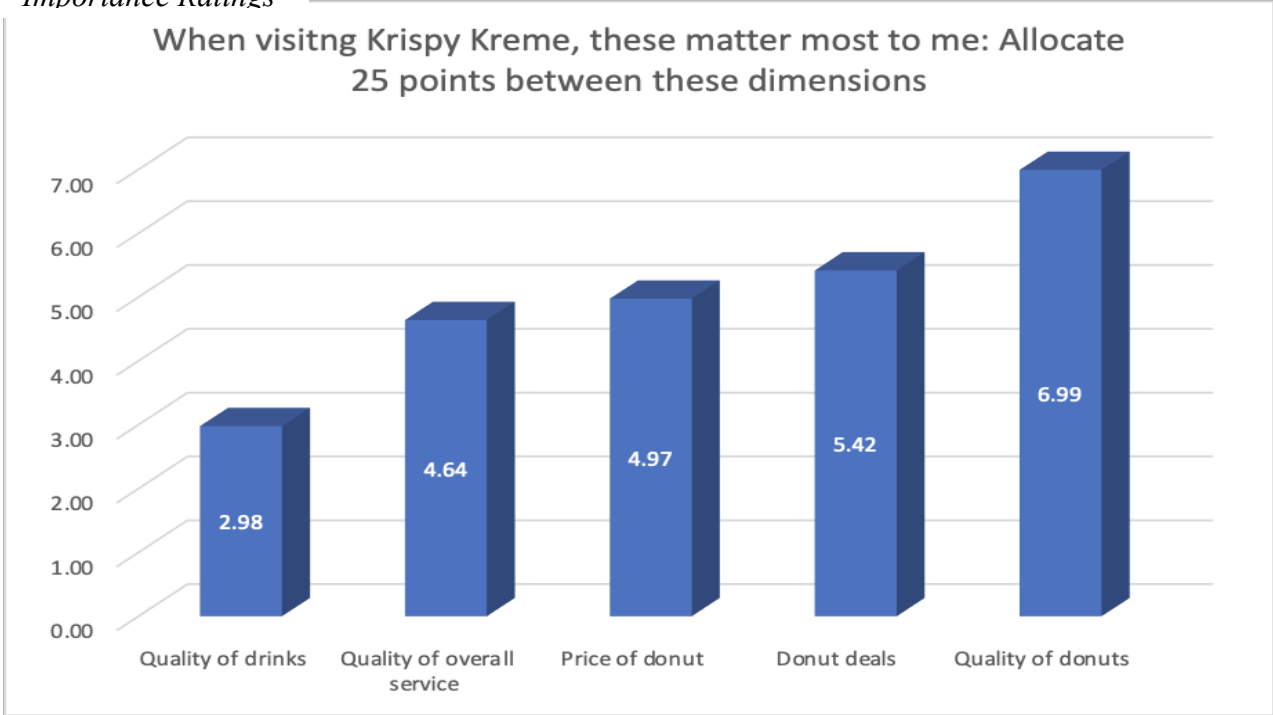
Figure 1

Overall Rating

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[1] The placement of figures and tables is consistent with APA guidelines/tables-figures/figures: "There are two options for first is to embed figures in the text after each is first mentio on a separate page after the reference list."We have chosen

Next, we used a constant sum scale to determine which of several dimensions were most important to customers: Donut deals, Price of donuts, Quality of donuts, Quality of drinks, and Quality of overall service. A constant sum scale, being a ratio scale, is the most powerful of all scales (nominal, ordinal, interval, and ratio) in that it can be used for more statistical computations than any of the others. In this constant sum scale shown in Figure 2,the total number of points to be allocated among the five dimensions was 25. Since 25 points are allocated among 5 factors, the average would be 5. Clearly, quality of donuts and donut deals are doing much better than that average of 5, price of donuts is doing about average, and the other two (quality of customer service and quality of drinks) were below the average value of 5. The least important was found to be the quality of drinks. These ratings make sense in that Krispy Kreme is primarily a donut chain. The managerial conclusion is that werecommend that Krispy Kreme focuses on the quality of donuts and donut deals to improve the retention of customers.

Figure 2

Importance Ratings

We then examined the performance of Krispy Kreme on several dimensions using a standard 5- point Likert scale. Figure 3 shows that the quality of donuts performed the best, with a mean rating of 4.33 which was found to be significantly greater than 4 on a 5-point scale ($p < 0.05$). This is excellent news for Krispy Kreme

because the quality of donuts was found to be most important in the allocation of 25 points constant sum scale shown in Figure 3. This means that Krispy Kreme is performing best on the most important dimension: Quality of donuts. The performance of quality of customer service and menu prices were insignificantly different from 4 on a 5-point scale ($p > 0.05$) which again is good news for Krispy Kreme. The lowest performing dimensionwas good variety, with a rating insignificantly different from the mid-point (3.0, $p > 0.05$) of the Likert scale. The managerial conclusion is that we recommend that Krispy Kreme continue to focus and improve on the quality of donuts since it is the most important on both the Likert scale and allocation scale of 25 points, and maintain its good performance on quality of customer service and price.

Figure 3

Performance Ratings
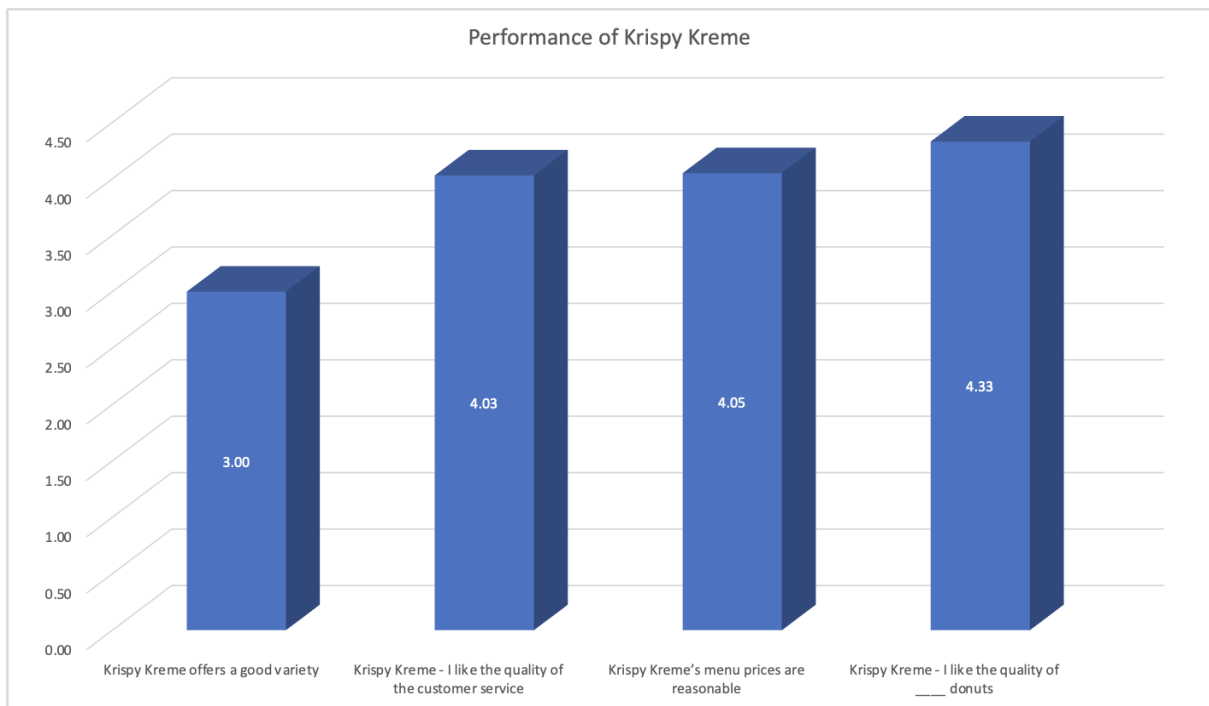
Hypothesis Tests: Independent samples T-Tests(Test of Differences between Means)

Independent samples T-Tests were done for all 17 Likert variables on Krispy Kreme. No gender segments were found. These variables showed no significant difference between males and females:

- All Krispy Kreme locations should be open 24/7.
- In comparison to Dunkin Donuts, Krispy Kreme's prices are better.
- Krispy Kreme has outstanding donut quality.
- If Krispy Kreme offered weekly deals, I'd be more inclined to Purchase their product.
- I prefer Krispy Kreme's coffee over McDonald's

- Krispy Kreme should allow customers to create their own product to make a more pleasant experience.
- Krispy Kreme should develop more icing flavors.
- Krispy Kreme should partner and collaborate with other fast-food chains.
- Krispy Kreme should have more locations.
- I like the quality of the donut
- I like the quality of the customer service
- Krispy Kreme's menu prices are reasonable
- Krispy Kreme offers a good variety
- I would buy misshapen donuts at a discount price if Krispy Kreme sold them.
- Krispy Kreme should add to their app a way to design your own donuts (design lab section).
- Overall, Krispy Kreme is a good place to eat.
- I would recommend Krispy Kreme to a friend.

Chi-Squared Test: Krispy Kreme- I like the quality of customer service * Race

Table 2b shows that there is a relationship between race and quality of customer service with a significance of 0.001. Table 2a shows that over 75 percent (76.7%) of black respondents agree or strongly agree that they like the quality of customer service at Krispy Kreme. In contrast, only 54 percent (54.4%) of white respondents agree or strongly agree that they like the quality of customer service. It is evident that there are race segments in the quality of customer service at Krispy Kreme. Krispy Kreme should continue to do a good job with African Americans while working hard to improve the service to Whites.

Crosstab

Table 2a *Krispy Kreme – Quality of customer service * Race Crosstabs*			Krispy Kreme –Quality of customer service					
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
Race	White	Count	3	5	28	22	21	79
		% within Race	3.8%	6.3%	35.4%	27.8%	26.6%	100.0%
		% within Krispy Kreme - I like the quality of the customer service	33.3%	33.3%	38.9%	25.6%	13.6%	23.5%
	Black or African American	Count	6	10	44	64	133	257
		% within Race	2.3%	3.9%	17.1%	24.9%	51.8%	100.0%
		% within Krispy Kreme - I like the quality of the customer service	66.7%	66.7%	61.1%	74.4%	86.4%	76.5%
Total		Count	9	15	72	86	154	336

		2.7%	4.5%	21.4%	25.6%	45.8%	100.0%
	% within Race	2.7%	4.5%	21.4%	25.6%	45.8%	100.0%
	% within Krispy Kreme - I like the quality of the customer service	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2b
Chi-Square Statistics

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.310[a]	4	.001
Likelihood Ratio	19.237	4	.001
Linear-by-Linear Association	15.429	1	.000
N of Valid Cases	336		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 2.12.

Correlation Analysis

Looking ahead, the next sub-section under this major Analysis section is on Regression analysis. Before we do that, however, it makes sense to do a correlation analysis to examine the pairwise relationships between one of the upcoming dependent variables in the regression (space constraints will not permit us to show a correlation for both) and several variables that might impact them. The correlation matrix is shown in Table 3 below.

Table 3
Correlation Analysis

Correlations

		Overall, Krispy Kreme is a good place to eat.	Krispy Kreme - I like the quality of ___ donuts	Krispy Kreme - I like the quality of the customer service	Krispy Kreme's menu prices are reasonable	Krispy Kreme offers a good variety	In comparison to Dunkin Donuts, Krispy Kreme's prices are better.	Krispy Kreme has outstanding donut quality.	If Krispy Kreme offered weekly deals, I'd be more inclined to Purchase their product.	Whenever I visit a Krispy Kreme location, I spend ___?	I prefer Krispy Kreme's coffee over McDonalds's
Overall, Krispy Kreme is a good place to eat.	Pearson Correlation	1	.508**	.446**	.449**	.452**	.408**	.602**	.502**	.163**	.377**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.002	.000
	N	385	384	384	384	384	384	384	382	374	383
Krispy Kreme - I like the quality of ___ donuts	Pearson Correlation	.508**	1	.612**	.589**	.616**	.257**	.550**	.386**	.121*	.283**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.019	.000
	N	384	384	384	384	384	383	383	381	373	382
Krispy Kreme - I like the quality of the customer service	Pearson Correlation	.446**	.612**	1	.753**	.686**	.333**	.406**	.343**	.211**	.349**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	384	384	384	384	384	383	383	381	373	382
Krispy Kreme's menu prices are reasonable	Pearson Correlation	.449**	.589**	.753**	1	.702**	.437**	.404**	.333**	.234**	.367**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	384	384	384	384	384	383	383	381	373	382
Krispy Kreme offers a good variety	Pearson Correlation	.452**	.616**	.686**	.702**	1	.294**	.375**	.316**	.257**	.333**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	384	384	384	384	384	383	383	381	373	382
In comparison to Dunkin Donuts, Krispy Kreme's prices are better.	Pearson Correlation	.408**	.257**	.333**	.437**	.294**	1	.461**	.495**	.175**	.398**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.001	.000
	N	384	383	383	383	383	384	383	382	373	382
Krispy Kreme has outstanding donut quality.	Pearson Correlation	.602**	.550**	.406**	.404**	.375**	.461**	1	.592**	.137**	.389**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.008	.000
	N	384	383	383	383	383	383	384	381	373	382
If Krispy Kreme offered weekly deals, I'd be more inclined to Purchase their product.	Pearson Correlation	.502**	.386**	.343**	.333**	.316**	.495**	.592**	1	.155**	.462**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.003	.000
	N	382	381	381	381	381	382	381	382	371	380
Whenever I visit a Krispy Kreme location, I spend ___?	Pearson Correlation	.163**	.121*	.211**	.234**	.257**	.175**	.137**	.155**	1	.191**
	Sig. (2-tailed)	.002	.019	.000	.000	.000	.001	.008	.003		.000
	N	374	373	373	373	373	373	373	371	374	373
I prefer Krispy Kreme's coffee over McDonalds's	Pearson Correlation	.377**	.283**	.349**	.367**	.333**	.398**	.389**	.462**	.191**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	383	382	382	382	382	382	382	380	373	383

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

In the first row of Table 3, we see the correlation coefficients between "Overall, Krispy Kreme is a good place to eat." and several other variables that we intend to use in the next subsection (Regression Analysis). All of the variables show a significant relationship with recommendation to a friend at the alpha level of 0.01. The one with the most significant relationship was "Krispy Kreme has outstanding donut quality", which had a correlation coefficient of 0.602. This makes sense because if something has the best quality in its respective field, then people are more likely to have a better overall opinion of the establishment.

The rest of the table shows many significant relationships between the variables that we intend to use as independent variables in our regression analysis. This phenomenon arises out of a "halo effect" by which, if we like (or dislike) one attribute of a product or service or person, we tend to like (or dislike) most other attributes of that product or service or person. These many significant correlations among the planned independent variables are not desirable and may lead to a potential problem of multicollinearity in a regression analysis which in turn leads to spurious relationships being indicated. To minimize the effect of multicollinearity, we will use stepwise regressions which will not allow insignificant variables to come into the chosen steps of the regression.

The managerial conclusion of the correlation analysis is that we recommend that Krispy Kreme continue to maintain and improve the variables that have the strongest relationship to "Overall, Krispy Kreme is a good place to eat."

Regression Analysis
Dependent Variable: Overall, Krispy Kreme is a good place to eat.
This variable was one of two variables that the management would use as a key performance indicator because an overall evaluation is an important way to assess the performance of any business or indeed, any operation.

Table 3a
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	**.599d**	**0.358**	**0.352**	**0.779**
d. Predictors: (Constant), Krispy Kreme - I like the quality of ____ donuts, Krispy Kreme should partner and collaborate with other fast-food chains., Krispy Kreme offers a good variety, Krispy Kreme should allow customers to create their own product to make a more pleasant experience.				

Table 3a shows that in this regression, we have successfully explained 35.2% of the variance in the dependent variable, Overall Satisfaction.

Based on the ANOVA, the regression as a whole is significant at the 0.000 level.

Table 3b[2]
Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	1.232	0.207		5.964	0.000
	Krispy Kreme - I like the quality of ____ donuts	0.321	0.047	0.356	6.773	0.000
	Krispy Kreme should partner and collaborate with other fast-food chains.	0.150	0.038	0.194	3.930	0.000
	Krispy Kreme	0.134	0.047	0.152	2.835	0.005

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[2]Normally, we would not split a table between two pages. However, we are required by the style constraints to double space the paper. If that constraint applies to tables as well, the table will not fit on one page.

offers a good variety					
Krispy Kreme should allow customers to create their own product to make a more pleasant experience.	0.106	0.043	0.121	2.482	0.013

a. Dependent Variable: Overall, Krispy Kreme is a good place to eat.

From Table 3b, we formulate the final regression equation

Overall, Krispy Kreme is a good place to eat= .356*(I like the quality of__ donuts) + .194*(Partner and collaborate) + .152*(Offers good variety) + .121*(Customers create their own product)

The managerial implications are that we recommend that, if the manager wants to improve the impression that Krispy Kreme is a good place to eat, he or she has to maintain or improve the quality of the donuts. After that, Krispy Kreme needs to offer more variety of foods and drinks. It is also desirable to have Krispy Kreme partner and collaborate with other fast-foodchains and providean option to have customers create their own products at Krispy Kreme. According to the regression model, if the company were to improve in these three areas and partner with other fast-food chains, the company would experience a large amount of success in improving the perception that Krispy Kreme is a good place to eat.

Conclusions

During our research, we came to several conclusions about Krispy Kreme. When it comes to gender, the data shows that the majority of customers who participated in the poll were female. Our sample includes people ranging in age from 15 to 88 years old. The average age is 37.8 years old; the median age is 23, and the mode age is 22. Approximately 56 percent of those polled are between the ages of 18 and 25. Individuals who responded to the poll resided in a variety of locations in relation to Krispy Kreme.

The average travel distance is 22.9 miles, the median travel distance is 17 miles, and the mode distance is 10 miles. When it comes to race, Black or African American respondents made up little more than 67 percent of the total, with white respondents making up slightly more than 20 percent. The remaining combined races amount for slightly more than 12 percent of the total. Approximately 70 percent of respondents feel Krispy Kreme provides excellent customer service. The average rating on a 5-point scale was 4.03. With such a high average, we can assume that Krispy Kreme's customer service is regarded favorably. We concluded that Krispy Kreme makes good donuts. Over 64 percent of respondents agreed with our statement: "I like the quality of donuts."

In addition, 80.9 percent agreed or strongly agreed with the statement. Krispy Kreme's donuts are of exceptional quality. This contributes to Krispy Kreme's excellent reputation for providing high-quality goods. Krispy Kreme's menu prices are reasonable, with approximately 71 percent of respondents agreeing or strongly agreeing with the statement. According to the data, Krispy Kreme offers a wide range of products. Almost 75 percent of those polled agreed or strongly agreed with the following statement: "Krispy Kreme has a good variety." We also asked people how they felt about Dunkin' Donuts in order to compare Krispy Kreme to its competitors. More than a third of respondents (31.2%) strongly disapproved with Dunkin' Donuts' quality. In terms of donut quality, this was far inferior to Krispy Kreme. According to our survey, around 31 percent of Krispy Kreme customers spend between 0 and $10. Approximately 13 percent spend 0-5 dollars at Krispy Kreme, with a median of 10. Respondents prefer Krispy Kreme's coffee to McDonald's coffee, according to the study. Approximately half (50.39 percent) of those polled agree or strongly agree with the statement. The average is 3.61 on a 5-point scale, with 1 being strongly disagree and 5 being strongly agree. We had a great reaction when we asked respondents about Krispy Kreme releasing an app that would allow customers to design their own doughnuts. Customers would prefer Krispy Kreme if they could design their own doughnuts using the Krispy Kreme app. A little more than 65 percent (68.16 percent) of respondents agreed or strongly agreed, which is significantly higher than the remaining responses to this perspective. We also discovered that allowing customers to design their own goods will benefit Krispy Kreme. Just over 60 percent (62.34%) of respondents agreed or strongly agreed, accounting for significantly more than half of the remaining responses to this idea. Customers would respond better to Krispy Kreme if they could design their own goods.

We discovered that the most critical criteria in the distribution of points on a 25-point scale was the quality of donuts and donut discounts. The pricing of donuts and the quality of customer service were two other important factors that were not as important as the first two. The quality of the drink was the least important consideration. We found that donut quality is adequate based on our one-mean test. Furthermore, the weekly offerings in the purchasing trend are doing well.

However, Krispy Kreme should open more locations in order to become open 24 hours a day, seven days a week, and offer competitive rates, allowing the company to outperform Dunkin Donuts. We concluded from our test of differences between means that there is no significant difference in the responses about Krispy Kreme males and females, implying that Krispy Kreme can utilize only one technique. These following variables have no relevant gender segments: I enjoy the quality of the doughnut, I like the quality of the customer service, the menu pricing at Krispy Kreme is affordable, and Krispy Kreme has a good selection. Krispy Kreme offers deformed donuts at a discount or gives them free as a promotional item. Customers would prefer Krispy Kreme over Dunkin' Donuts if Krispy Kreme increased its marketing or opened more outlets.

According to the results of our Chi-Square testing, there are distinct race segments in the quality of customer service at Krispy Kreme. Over 75% of black respondents agree or strongly agree that the quality of customer service at Krispy Kreme is good. In comparison, only 54% of white respondents agree or strongly agree that the quality of customer service is good. The bulk of the traits we used are

associated with recommending Krispy Kreme to a friend. In comparison to McDonald's, we feel Krispy Kreme should experiment with new methods to improve their coffee.

While it is still significant, it could be improved so that more people are inclined to advise Krispy Kreme to a friend. If the management wants to continue to provide the impression that Krispy Kreme is a decent location to eat, they must maintain or improve the quality of the donuts. Following that, Krispy Kreme should provide a broader selection of foods and beverages. Lastly, customers at Krispy Kreme should be able to design their own product. According to the coefficient model, if the company improves in these three areas and specifically partners with other fast-food chains, it will experience great success in increasing the perception of Krispy Kreme as a good place to eat.

Recommendations

After reviewing the analysis and the conclusion we have just a few of recommendations for Krispy Kreme.About 70 percent of the respondents think Krispy Kreme has good customer service. Although Krispy Kreme's customer service is more favorable compared to Dunkin', we recommend Krispy Kreme make changes to the policy of treating customers to increase that number. This will have a higher retention of customers equating to more sales. Since the statement "I like the quality of donuts" had more than 64% of respondents agreeing that Krispy Kreme's quality is betterwhen compared to Dunkin', we recommend that they continue to focus and improve the quality service. Focusing on quality, can help customers differentiate the superiority of taste and texture to all competition.

With over 71 percent of respondents agreeing that the prices are reasonable, Krispy Kreme should not charge more than they already are. This will keep customers satisfied and continue to purchase their products. A huge finding in the results that could increase Krispy Kreme's business is doing business online through an app. A significant number, 65 percent, of the respondents agreed or strongly agreed that they would want to design their own donuts on the Krispy Kreme app. So, we suggest that Krispy Kreme consider creating a way for customers to design their product. This could result incustomers choosing more items and creating endless possibilities of what they prefer. The research also showed that it would benefit the company with 60 percent of respondents agreeing that they would respond better to designing their own goods.

Lastly, another factor that would benefit Krispy Kreme, would be opening more locations 24/7. The survey showed a large percentage of those agreeing and strongly agreeing with a combined amount of 58.7 percent. This helps expand the business and gives customer access all day. This is also another way to bridge the gap between the competition, showing that the availability of products is accessible around the clock and not specific times in the day. In comparison to McDonald's, we fell Krispy Kreme should improve their coffee with new methods by experimenting. This will give customers another reason to continue being a loyal spender and help with the image that Krispy Kreme serves all quality products, whether that's donuts or beverages.

Limitations

Given the time and circumstances of the course we chose a convenience sample rather than a random sample. In a convenience sample we are choosing to reach the easiest targets. In other words, it would be family members, friends, spouses, and others that we know or are close to. This method is rather easy, and it's considered biased because it does not represent an entire population and we are targeting specific

individuals. On the other hand, we have a random sample. We did not choose this method for reasons of time and expense, but it would have been the better method. This method is not considered biased, and it does not go by easy availability but random selection. It also gives each person randomly selected the same opportunity as the other. We would know the exact probability of each respondent in this sample. Articles in details are below about the pros and cons of the two types of sampling.

One more change we would have made would be to question 15. Question 15 on the questionnaire states, "Krispy Kreme should partner and collaborate with other fast-food chains." Explaining the type(s) of collaborations could make the question more concise so that the respondents know exactly what we meant by collaborating. Also giving an example of a type of collaboration, would hopefully gain a positive response in respondents agreeing or strongly agreeing to the question.

Stephanie Glen. "Simple Random Sample: Definition and Examples" From StatisticsHowTo.com: Elementary Statistics for the rest of us! https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/simple-random-sample/

Additionally, there are imitations with regard to this paper submission. First, the length constraints forced us to select only a few variables to discuss in this submission. The questionnaire in the appendix shows that we had data on 22 variables. But, in the Data Summary section, we had to select only one variable for a detailed discussion and only two sets of variables for the column charts. Similarly, in later sections, we were selective as to how many analyses we had the room to share.

Further, time and space constraints did not permit us to provide an exhaustive literature search, which would have enhanced the paper considerably.

A major contribution of this paper is to demonstrate how statistical analysis in social science research can be used to improve the performance of a business, or any other organization. Thus, the impact of the paper goes far beyond any one organization.

Appendix: Questionnaire *(Not counted in the 14-page constraint)*

Questionnaire:

1. Gender:

 Male, Female, Non-binary/third gender, prefer not to say.

2. Age (Please enter a whole number, such as 22, 34, or whatever the closest integer is to your age):

3. I live approximately ___ miles from the nearest Krispy Kreme (Please enter a whole number, such as 22, 34, or whatever the closest integer is to the distance).

4. Race:

White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, other.

5. Have you ever eaten at Krispy Kreme? (Select one):

Yes, No

6. All Krispy Kreme locations should be open 24/7.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

7. In comparison to Dunkin Donuts, Krispy Kreme's prices are better.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

8. Krispy Kreme has outstanding donut quality.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

9. If Krispy Kreme offered weekly deals, I'd be more inclined to Purchase their product.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

10. Whenever I visit a Krispy Kreme location, I spend ___? (Please enter a whole number, such as 10 or 20 or whatever the closest integer is to the amount spent)

11. I prefer Krispy Kreme's coffee over McDonald's.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

12. When visiting Krispy Kreme, these matter most to me. (Allocate a total of 25 points for the choices below.)

Donut Deals, Quality of Donuts, Quality of Overall Service, Quality of Drinks, Price of Donut.

13. Krispy Kreme should allow customers to create their own product (mixing drinks, soft serve ice cream and other items together) to make a more pleasant experience.

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

14. Krispy Kreme should develop more icing flavors.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

15. Krispy Kreme should partner and collaborate with other fast-food chains.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

16. Krispy Kreme should have more locations.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

17. I would buy misshapen donuts at a discount price if Krispy Kreme sold them.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

18. Krispy Kreme should add to their app a way to design your own donuts (design lab section).
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

19. Please use this scale to answer to indicate your agreement or disagreement with the following statements:
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

20. Overall, Krispy Kreme is a good place to eat.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

21. I would recommend Krispy Kreme's to a friend.
1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

22. I prefer: (Circle One):
I strongly prefer Krispy Kreme, I prefer Krispy Kreme, prefer either, I prefer Dunkin' Donuts, I strongly Prefer Dunkin' Donuts.