Conducting Grounded Theory Research in the Early Days of the Coronavirus Pandemic: Process Interruptions, Barriers, and Innovative Approaches to Study Design

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ABSTRACT
The COVID-19 pandemic changed the ways by which qualitative research is designed, participants are recruited and engaged, and results are shared regardless of research disciplines or epistemological perspectives. As a result of on-going requirements for social distancing and remote working or learning, researchers have had to redefine effective research methods by reimaging recruitment and data collection, investing in VoIP technology, and developing innovative ways to build trust across digital platforms. This manuscript explores how one Grounded Theory research study evolved in response to the emergence of COVID-19 and presents recommendations for innovative approaches to study design, data collection, and continuous participant interaction. We also briefly discuss ethical considerations that have emerged over the past two years.

KEYWORDS: qualitative research, grounded theory, pandemic, online data collection.

In December 2019, the first cases of severe acute respiratory syndrome coronavirus 2 (SARS-VoC-2), more commonly known as COVID-19, emerged in Wuhan, Hubei Province, China (Centers for Disease Control and Prevention [CDC], 2022). The first case of COVID-19 in the United States was confirmed on January 20, 2022, and ultimately declared a public health emergency by the U.S. Department of Health and Human Services on January 31, 2020, and a global pandemic by the World Health Organization on March 11, 2020. While COVID-19 has impacted infrastructure across the world, this manuscript specifically considers the impact the pandemic had on the U.S. population and our academic and medical infrastructure. As of December 2022, the U.S. has experienced several significant surges and variants of the coronavirus (e.g., the delta variant, the omicron variant), which have infected approximately 94.5 million Americans and killed over one million people (World Health Organization [WHO], 2022). The devastation of the last two years has been profound, and our institutions have only begun to recover and return to limited in-person operations.

Institutions of higher education, their students, faculty, and staff were forced to adapt in the face of COVID-19's many challenges. Instruction rapidly shifted from the face-to-face classroom to online, students were moved out of residence halls, and communities were required to adapt to school and personal demands in an uncertain climate. Additionally, institutional resources such as

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libraries, counseling centers, and other centralized services (e.g., student advising, campus health centers, and campus activities) had to develop mechanisms to support virtual services. From a research perspective, faculty faced questions about the feasibility of continued work without direct access to research participants and traditional resources such as campus labs, graduate research assistants, or other administrative supports (Johnson et al., 2020; Lederer et al., 2020). In response to these changes, the majority of universities halted all in-person research activity and, when feasible, protocols were modified to support research. Research unrelated to COVID-19 and patient care were required to adapt to methods of online data collection or be suspended. For researchers engaged in human-centered social and behavioral work, research that requires a deep appreciation for context, culture, physical space, and human connection, the challenges first seemed insurmountable. In many ways, COVID-19 acted as a catalyst for process and methodological modification and evolution. Instead of halting research, many researchers adapted to continue the critical work they conducted prior to the pandemic's emergence.

Grounded Theory Research

To best understand how grounded theory research evolved due to the COVID-19 pandemic, researchers must first understand grounded theory in the ideal context. Grounded theory is a research methodology designed to collect and analyze data and ultimately to construct theory from those data themselves (e.g., interview transcripts, research memos, observational data). Like many qualitative research methodologies, grounded theory operates inductively and requires the researcher to actively utilize specific observations across a clearly defined target population to develop broader generalizations (Charmaz, 2014; Corbin & Strauss, 2015). Through this process, the researchers weave together multiple small constructs and illustrate how the interconnections between these constructs contribute to an overall understanding of a process. This understanding becomes a "grounded theory." Essentially, grounded theory allows individual subjects to guide theory development through a shared understanding of their own experiences rather than rely on preconceived knowledge or the experiences and biases of the researcher. Per Charmaz (2014), studies situated in grounded theory often begin with the formation of a research question(s) followed immediately by data gathering and analysis. Charmaz notes that common methods for collecting data in grounded theory research include interviews, focus groups, direct observation of participants living and acting in their typical contexts, and the analysis of texts and other artifacts relevant to the population under study. As data is gathered and reviewed, the researcher codes for themes, identifies recurring concepts, and ultimately groups codes into larger themes as data continues to be collected and analyzed. Grounded theory often has not incorporated significant pre-research literature reviews. In this way, grounded theory has allowed the individual subjects to guide theme and theory development rather than relying on prior research.

Overview of Original Study

Our original grounded theory study sought to understand and develop a theoretical framework describing how DACA recipients studying at a public university in the Mid-Atlantic United States understood self-care, engaged in practices to support the maintenance of positive mental health, and developed their overall subjective well-being (SWB). A secondary aim of the project was to assess how various social determinants of health impacted mental health outcomes among various populations of DACA students (i.e., from various culture-sharing groups, faith identities, etc.). Our team identified three specific gatekeepers on the flagship campus of a large public university system who agreed to support participant recruitment and provided quiet spaces

on campus to conduct interviews in private (e.g., private offices, conference room space, reserved classrooms). We discuss how our aims and methods changed in response to the COVID-19 pandemic further in the manuscript.

Original Research Questions

A review of existing scholarly literature considering broad health outcomes among DACA recipients demonstrated several significant knowledge gaps related to mental health and well-being. There has been little scholarly literature exploring how young DACA recipients have engaged in mental health help-seeking behavior or access health resources. The problem this study addressed concerns the development of DACA undergraduate students and their understanding of psychological distress, specifically considering the political climate of the Trump administration and the complexity of their immigration status. The original purpose of our study was to develop a theory explaining contributors to the development of SWB among DACA recipients in college.

The following research questions were initially developed in response to these gaps, as well as the political landscape of the United States in late 2019 (i.e., during the Trump administration and while the Supreme Court was hearing challenges to the DACA program):

1. How do undergraduate DACA students studying at a large public university understand and experience subjective well-being?

   a) How do these students understand and engage in self-care?
   b) How do these students describe, understand, and experience personal sources of distress?
   c) How do these students engage in mental health help-seeking practices?
   d) How do these students experience and describe the process of accessing health resources?

Overview of Original Methods

Initially, our data collection plan included one-on-one sequential interviews with students, faculty, and campus health providers, as well as observational data of students on campus and an analysis of available resources to support student mental health (e.g., resources through the campus health center, resources available through the international students' office/office of undocumented student affairs). Our intent was to develop a theoretical understanding of DACA recipients' development that would provide a foundation for future research and guide the development of services to support similar populations of students on university campuses (i.e., other students with temporary protected status).

In the context of our specific research questions, grounded theory was a sensible methodological approach for three specific reasons: (1) DACA students remained a little-studied population, and thus, existing theories on well-being were insufficient as they did not account for the unique experiences of people living on the margins of legal status in the United States; (2) grounded theory encourages an iterative process to research design and encourages early data analysis to refine the study, engage study participants, and continuously center the experiences of the study participants; and (3) Charmaz's (2014) particular approach to grounded theory recognized that research is not a unidirectional view of a specific phenomenon, but rather a multifaceted and complicated set of interactions between individuals and society. This final point well aligned with the purpose of our study, which proposed to explore how DACA student experiences perceived

mental well-being through an analysis of their personal relationships and their relationship with the federal government because of their immigration status.

Paradigm of Inquiry

Our team approached grounded theory through a constructivist lens, a paradigm first developed by sociologist and occupational therapist, Kathy Charmaz (Charmaz, 2014; Chong & Yeo, 2015). In short, the constructivist approach recognizes that individuals are active players in the development of their reality, that "truth" is subjective, and that social context impacts meaning making (Lather, 2006). Grounded theory research approached with a constructivist lens centers the experiences of study participants and uses In Vivo language to ensure that theory development is firmly grounded in the self-expression of the population under study (Charmaz, 2006). This approach ensured that the experiences of our participants were centered, and that the emergent theory was appropriately situated in their stories, experiences, and needs.

Of similar importance was an understanding of mental health and SWB through a biopsychosocial lens, an understanding of health and illness inclusive of physiology and pathology (the "bio"), individual thoughts, emotions, and behaviors (the "psycho"), and the environmental, cultural, religious, relationally oriented contexts that impact an individual's sense-making (the "social") (Engel, 1977; Gatchet et al., 2007). The biopsychosocial understanding of health challenges the dominant Western medical model wherein illness is identified through observation of specific symptoms grounded in widely accepted clinical practices (i.e., without consideration for wider contexts). This lens was particularly important to our study given the intersection of identities that DACA recipients carry with them and the complex and multifaceted barriers that these individuals face in accessing evidence-based health care (i.e., formal health care from providers).

Research Interrupted

As so many educators and researchers experienced, our team's plans were derailed by the emergence of the COVID-19 pandemic. Over a period of two weeks in early March 2020, our university campus closed, operations moved online, and research studies unrelated to the pandemic were largely halted in response to sudden requirements for social distancing and a reduction in university resources. Similar events took place at the state institution where we were planning on conducting our research. In addition to the COVID-19 pandemic, our study was significantly impacted by the Supreme Court's decision to hear oral arguments to determine the constitutionality of the DACA program. These two circumstances, which represented political and public health stressors among our participants, impacted the ways by which we were able to recruit and collect data. Below, we discuss how our study shifted in response to these circumstances in early 2020. Figure 1 provides an illustration of our final study timeline with the caveat that interview transcription and data analysis took place continuously across the research process and consequently is not identified below.

Impact of COVID-19 Global Pandemic on Research Procedures

This research study was designed in December 2019, and data collection began in February 2020, shortly before COVID-19 was declared a global pandemic and states began issuing stay-at-home orders. Within a month of IRB approval, our research location sent students off-campus and entered a period of virtual learning. This operational change impacted our data gathering and

introduced three key challenges. The first area impacted was participant recruitment. As a result of on-campus activities moving to a virtual environment, we had difficulty recruiting students through student organizations or advising offices. Campus gatekeepers sent emails and reached out to students on our behalf, but an inability to speak to students in-person may have limited recruitment. Second, as a result of the pandemic impacting all student well-being, the university counseling center was heavily utilized. With so many of the research site's counseling staff busy providing direct patient care, we were only able to schedule an interview with one university psychologist. Finally, due to physical distancing requirements, all interviews and focus groups were conducted using VoIP technology rather than in person, as explained in greater detail below. These challenges forced us to revisit the research questions and general methodology.

Table 1
Study Timeline

Initial Proposed Timeline	Actual Dates	Circumstance/Deliverable
N/A	November 2019	Supreme Court heard oral arguments re: DACA
December 2019	December 2019	Initial IRB submitted
N/A	January 31, 2020	COVID-19 declared a public health emergency in the US
February 7, 2020	February 7, 2020	IRB Approved
February 8, 2020	February 8, 2020	Collected online questionnaire responses
February 24, 2020	February 24, 2020	Began to schedule first individual interviews
N/A	March 16, 2020	University closures necessitated moving online. IRB amendment filed to request VoIP data collection.
N/A	May 11, 2020	IRB amendment approved
March 10, 2020	May 12, 2020	Began to schedule provider & staff interviews & second individual interviews
March 15, 2020	June 1, 2020	Began to schedule negative case study interviews
N/A	June 18, 2020	The Supreme Court determined that the Trump administration's termination of DACA was in violation of the Administrative Procedure Act. DACA is protected.
March 30, 2020	July 3, 2020	Closed online questionnaire
April 1, 2020 - June 1, 2020	July 4, 2020 - January 4, 2021	Continued data analysis, memoing, field notes, and drafting manuscript
August 1, 2020	January 5, 2021	IRB Study Closure

Emerged Research Questions

Given the unique context our team found ourselves in after the university closure in mid-March 2020, our research questions were adjusted to consider the complex experiences of our participants during the pandemic and through their changed living arrangements (i.e., moving home, transitioning to virtual learning, beginning to care for their families' financial and physical needs).

1. How do undergraduate DACA students studying at a large public university understand and experience subjective well-being, inclusive of both psychological distress and emotional affect?

   a) How do these students understand and engage in personal self-care, specifically given the intersection of their responsibilities at home to family, school, and personal health?
   b) How do these students describe, understand, and experience personal sources of distress?
   c) How do these students engage in mental health help-seeking practices off-campus?
   d) How do these students experience and describe the process of accessing health resources when typical resources are unavailable (e.g., campus health centers)?
   e) How has COVID-19 impacted other elements of their life?

Research Site Overview & Shift to Virtual Research

At the time this study was initiated, participants were actively enrolled students at a single large public university in the Mid-Atlantic. The university was classified as an R1 institution, an organization with the highest research activity, by the Carnegie Classification of Institutions of Higher Education. In the interest of providing participant confidentiality, the site is only identified as Public Research University (PRU) throughout this study. At the time of this study, PRU enrolled roughly 13,000 undergraduate students and 5,000 graduate students. Based on self-reported statistics, PRU was home to over 200 undocumented students and approximately 50 students with DACA status. Importantly, PRU did not retain formal lists of students who had DACA classification in the interest of ensuring information security and privacy for all students. These decisions were made in response to institutional concern for the long-term security of their students and to ensure that immigration status remains confidential in light of a subpoena from Immigration and Customs Enforcement (ICE) or other federal organizations. PRU was selected as a research site due to its large population of DACA recipients, its home state's inclusive policies regarding access to higher education for DACA beneficiaries, and the institution's culture of support and inclusion for DACA students. Due to PRU's support for the DACA program and its large suite of resources for this population, the DACA students on campus tended to be vocal and engaged.

Prior to the emergence of COVID-19, all participants spent at least half of their week on-campus taking courses, engaging with student organizations, or working as student employees. Consequently, the first two participants were interviewed in private spaces on campus, allowing the researchers to collect observational data regarding the campus and the participants' roles on campus. With the emergence of COVID-19, all data collection moved to VoIP platforms, and observational data shifted from considering the campus contexts to the home environments in which students lived and worked. This necessitated updates to our original IRB submission to allow for observational data of the home context and to include additional probing questions to understand better their roles at home and how the shift to virtual learning impacted their sense of

well-being. Through VoIP technology, the participants' roles as parents, partners, or caregivers to larger families became a salient part of the data collection and analysis.

Participants and Sampling

Research participants were recruited through three primary channels. First, we circulated an email through an undocumented student resources listserv at the university to solicit support from institution faculty and staff. These listservs were closed and protected, so we worked with institutional stakeholders to design email collateral and worked with campus leaders to circulate the material on our behalf. To this end, we reached out to the leaders of an undocumented student support group, a Director of a DACA resource center, as well as the Director of the international student office. We elected to contact a wide range of stakeholders, including those primarily working with undocumented students, given the often intersection and overlapping nature of immigration status. For example, many DACA recipients at PRU had undocumented family members and, consequently, took advantage of services and resources available through undocumented support groups.

Second, we coordinated with the university's Office of Diversity and Inclusion to post flyers on campus and solicit participation through email blasts to various student organizations, including the Latinx-specific cultural organizations (e.g., cultural fraternities and sororities, clubs targeting students from specific regions of Central and South America, as well as clubs for political activism) and scholarship programs that supported historically excluded student populations. In all instances, university administrators contacted students on our behalf in order to ensure confidentiality and information security; we did not solicit student distribution lists. In this way, students were able to identify themselves and contact us directly if they were interested in participating in this study.

Third, snowball sampling was employed in which study participants referred additional subjects from among their friends and acquaintances (Creswell, 2013). As discussed below, snowball sampling became particularly important as we moved to a virtual environment due to COVID. To achieve saturation, we sought responses from all eligible DACA recipients studying at the university who responded to initial inquiries (Charmaz, 2014).

Barriers to Conducting Grounded Theory Research

Conducting grounded theory research requires an in-depth analysis of multiple factors influencing the subject of study (Charmaz, 2014). In order to identify and gain a comprehensive understanding of key factors, how they intersect, and their effect on one another, the researcher seeks to gain insights from multiple frames of reference. In the case of this study, those frames of reference included the perspectives of students, support networks, and peers. The consequences of public health protocols secondary to COVID created a series of barriers and pushed us to develop grounded theory data collection methods that would ensure we could gain access to rich and meaningful data. More specifically, changes to our initial protocol were made regarding recruitment, remuneration, and data collection.

Recruitment

The following step-by-step procedures explain how participants were recruited for the study:

1. Four members of the university faculty and administrators served as gatekeepers to student participants. These gatekeepers were contacted through email and provided with a detailed explanation of the research project along with copies of recruitment documents (emails to students, social media posts, and physical flyers for campus spaces).

2. University personnel contacted eligible participants through emails to student listservs, postings on campus, and student advising appointments. Interested participants were directed to contact the research team for additional details and access to our initial questionnaire.

    a) After COVID-19 emerged and campuses moved to virtual operations, two gatekeepers lost their jobs in response to budget adjustments at the host university. Part of our IRB amendment included an allowance to conduct snowball sampling, where additional participants were identified by students who had already completed interviews.

3. Potential participants were provided with an initial questionnaire to capture demographic information to ensure eligibility in the study. This questionnaire requested information, including the student's age, enrollment status, and immigration status, and asked general open-ended questions that encouraged participants to reflect on their sense of well-being.

4. Upon receipt of the initial screening questionnaire, students were contacted to schedule in-person interviews prior to the emergency of COVID-19. Informed consent was explained to students, and they were provided with an opportunity to ask questions before the interview began. To ensure participants continued confidentiality, informed consent was collected verbally. Allowing for verbal consent removed the need to collect and maintain paperwork with participants' legal names and signatures.

    a) Following COVID-19's closure of universities around the country, our IRB amendment allowed interviews to be conducted entirely online through the Zoom VoIP platform. Emerging research suggests that VoIP methods are an appropriate alternative for qualitative researchers engaged in data gathering (Lo Iacono et al., 2016). VoIP has been applied in this study due to the limitations COVID-19 has placed on physical gatherings.

5. Students who completed interviews were invited to refer peers to take part in the study.
6. Students who completed initial interviews were contacted to schedule a follow-up interview within three weeks of our first discussion. During this three-week period, participants were encouraged to reflect on their self-care practices, their support systems, and how they experience both positive and negative feelings.

Participant Remuneration

All students who agree to conduct an interview were given a $20 Visa gift card for their time and labor in supporting this study. Students were eligible to receive a $20 Visa gift card for each interview they completed, at a maximum of $40 dollars for completing two in-person or virtual interviews. It was important for our research team to provide payment to our student participants, particularly considering our ongoing efforts to address issues of injustice in research labor when historically excluded and marginalized populations are the unit of study (Largent & Fernandez Lynch, 2017).

Table 2
Participant Inclusion & Exclusion Criteria

DACA Student Participants	
Inclusion Criteria	Exclusion Criteria
- Hold active DACA status - Maintain full-, half-, or part-time enrollment at the university - Enrolled in an undergraduate-level course of study - Self-identify as Latinx (immigrate from a country in Central or South America)	- Inactive DACA status or other immigration status - Graduate of the university, on leave of absence, or other status outside of regular enrollment - Graduate level course of study - Does not identify as Latinx
Negative Case Study Participant	
Inclusion Criteria	Exclusion Criteria
- Citizen or Permanent Resident of the United Status - Maintain full-, half-, or part-time enrollment at the university - Enrolled in an undergraduate-level course of study - Self-identify as Latinx or Other	- Hold any temporary protected status or visa status - Graduate of the university, on leave of absence, or other status outside of regular enrollment - Graduate-level course of study
Provider Interview Participants	
Inclusion Criteria	Exclusion Criteria
- Employed by the university in the CHC or another relevant unit - The university is the primary place of employment - Minimum six months of working experience at the university	- Employed by the university in any capacity outside the CHC - Shares clinical responsibilities with any entity outside of the university system - Less than six months of working experience at the university

Procedures

In keeping with grounded theory research situated in a constructionist paradigm, we engaged first in a process of initial sampling followed by theoretical sampling during the study (Charmaz, 2006). Study participants were initially selected with the intention of gaining an understanding of their experiences as DACA recipients at a large college campus and addressing their overall mental well-being. Following the update to our study protocol, the research considered the experiences of DACA recipients broadly to understand their well-being considering their multiple roles (e.g., student, caregiver, parent, child) and the isolation they experienced in response to their home state's stay-at-home orders.

Initial Sampling

To begin, this study engaged in a process of initial sampling designed to gather early data, develop relevant codes and categories to inform later-stage theoretical sampling, and refine the interview protocol (Charmaz, 2006). During initial sampling, our team spoke with three students.

Initial sampling criteria

Study participants invited to conduct initial interviews were required to be enrolled at PRU either part-time or full-time and must have held an active DACA status at the time of the study. Participant eligibility was determined through the circulation of a pre-interview questionnaire, as described later in this manuscript.

Theoretical Sampling

Following a period of initial sampling, we engaged in more direct theoretical sampling to collect additional data to refine codes and categories identified during the process of initial sampling. Interviews conducted during this process were built and conducted following a protocol developed from themes that emerged during the process of initial sampling. Theoretical sampling is a more deliberate process of data gathering that seeks to saturate the data and allow the researcher to identify and begin developing the emerging theory (Charmaz, 2006). Central to this process was the constant comparison of data, codes, and themes to identify patterns. Per Charmaz (2006,), "this process ultimately ensures construction of full and robust categories and leads to clarification of the relationships between the identified categories" (p. 103). During this process, we conducted a further nine interviews.

During theoretical sampling, we conducted an iterative literature review to make further sense of the themes emerging from participant interviews. It was this iterative literature review that allowed our research team to understand the shared experiences between our participants and the broader DACA community across the country. Further, this allowed us to determine which experiences were unique to their lives during the pandemic. Throughout this process, we completed regular research memos tracking our progress, decision-making processes, and subjective experiences in the field. Grounded theory research situated in a constructivist worldview notes that the researcher cannot be wholly removed from the process of data gathering and theory development. Rather, data collection and analysis are "created from shared experiences and relationships with participants and other sources of data" (Charmaz, 2014, p. 239). In this way, the process of writing memos was crucial to ensure that our team regularly reflected on the ways that our presence, experiences, and biases impacted our relationship to this study. We discuss memoing in greater detail below.

Figure 1
COVID-19 Process for Conducting Grounded Theory Study

Instruments/Method of Data Collection

The study utilized qualitative data collection consistent with grounded theory, including questionnaire responses and interviews designed to gather rich data (Charmaz, 2006). Data was collected during the Spring 2020 and Summer 2020 semesters, allowing for interviews with students to occur during the 2019-20 academic year. This study was approved by the George Washington University Institutional Review Board (IRB number: NCR191902).

Initial Questionnaire

Though grounded theory relies substantially on interviews as the primary source of data, pre-interview questionnaires are an increasingly common method of identifying study participants and collecting information through open-ended questions prior to in-person conversations (Charmaz, 2014; Currie, 2009). This questionnaire instrument allowed us to spend more meaningful time with participants in the interviews by ensuring we screened early for principal features that align with our study design (Glaser & Strauss, 1967). This initial questionnaire was provided to all students eligible to participate in the study and was circulated through the use of the Survey Monkey platform. This questionnaire was designed to gather demographic information, including the participant's age, gender identity, enrollment status, campus residency status, country of origin, and the date on which they gained legal status under DACA. Participants were also asked to speak briefly about their experiences on campus, and in the community in which they live to self-assess their well-being and to identify existing systems of support. Consistent with grounded theory research, the questionnaire was not used to test existing notions of well-being and help-seeking but rather to better identify the principal features we sought to explore in this study (Glaser & Strauss, 1967).

Sequential Interviewing

The foundation of our research was grounded in immersive interviewing with our participants. Interviews were semi-structured to ensure that there was a focus on the phenomenon that we studied while still allowing participants to guide the discussion and provide their own interpretation of their experiences. Interview questions were broad and open-ended, designed to ask the participants to reflect on their experiences of daily life and to allow the participants to do much of the talking (Charmaz, 2014). Once we received the questionnaire results, we began scheduling these semi-structured interviews with a full body of participants. Important to this process was the use of sequential interviewing during the theoretical sampling phase of data collection. Appropriate interviews in grounded theory allow the participant to choose what to disclose and how, encourage them to reflect on earlier events, tell their stories in their own words, and express feelings that may not be allowed to surface in other relationships or in other settings (Corbin & Strauss, 2015; Glaser, 1992). Sequential interviews allowed us to engage with study participants, leave the space, and encourage subjects to reflect upon the experience. A follow-up interview was scheduled to allow deeper discussion with individual participants and ensured that we were capturing rich information and developing a nuanced description of the mental health needs and help-seeking tendencies of DACA students (Charmaz, 2014). All interviews were recorded using a digital voice recorder and transcribed through NVivo's transcription service, which we then reviewed and manually corrected.

In the context of this study, saturation was met when we conducted interviews with all willing student participants (Charmaz, 2014). This study explored the experiences of twelve students at PRU, a relatively small sample size, however, the stories captured through interviews provided important insights into the experiences of an understudied population of young people. Consistent with our epistemological perspective, which is situated in critical constructivism, we posited that halting the research until we were able to recruit additional students following the COVID-19 pandemic would negatively impact our ability to share the meaningful experiences of the twelve participants. Furthermore, there is an increasing body of researchers who argue that a small sample size may limit generalizability, but that does not mean small studies are without value (Baker & Edwards, 2012; Burns et al., 2018; Sandoval, 2000; Slekar, 2005). For one, it is difficult

to require a specific sample size when researching minoritized and relatively unprotected groups of people (Ellard-Gray et al., 2015; George et al., 2014). Engaging in research presents several potential risks, including the risk of personal identifying information being made explicit through a review of data. Additionally, halting research due to a small sample size of minoritized individuals further limits their representation in research and can silence important voices that are otherwise underrepresented in studies (Ellard-Gray et al., 2015). In light of the sociopolitical environment of 2020, it is beneficial that the stories gathered during data collection for this study be faithfully represented and the implications of the data be analyzed.

Building Trust in a Virtual Environment

One of the unexpected challenges offered to the researchers was building participant-researcher trust in the virtual environment. There was a shift from interviewing students in their place of education while their primary role was that of a student to interviews in the virtual environment where many of their primary roles shifted from student to caregiver, breadwinner, and student. Student and student-family vulnerability increased as many of our participants had DACA status, but family members did not. In order to build trust in the virtual environment, researchers ensured that interview protocols emphasized safety and confidentiality, initial questions were very open-ended to ensure the participants had control of the conversation and ensured the interviewer was in a setting that was behind closed doors and participants had control over their personal space during the interview process.

Provider Interviews & Shifting Roles During a Pandemic

In addition to the interviews with DACA students, we conducted interviews with campus healthcare providers at the University. In an effort not to impact our interactions with students or our analysis of their experiences and interviews, the provider discussions occurred at the end of our data collection process. We explored opportunities to speak with the providers in the campus health center, specifically those specializing in mental health services, behavioral health, and student development work. Each interview with university staff lasted just over 60 minutes and was made up of open-ended questions designed to elicit conversation among participants (Krueger & Casey, 2017). This interview was designed to learn more about the student population making use of the Campus Health Center's services during the pandemic, to understand how campus providers engage with students in a virtual learning environment, and to understand better providers' attitudes towards DACA and other minoritized students. The three staff interviewed specifically noted the significance of the DACA student coordinator on-campus, who was ultimately lost due to budget cuts in response to the COVID-19 pandemic. PRU was in the process of hiring a new coordinator, but this individual was not hired before the end of this study. General questions were asked to ensure that staff participants adhered to HIPAA and FERPA guidelines.

Virtual "Field Notes"

While conducting our campus-based student interviews, we took regular field notes to add to our data collection. Following the move to virtual data collection, our field notes evolved to include reflection on where our participants were calling from and the environments they were living in at home. In other words, some field notes identified that participants completed their interviews in private bedrooms or offices, whereas others completed their interviews in crowded

kitchens or living spaces, simultaneously engaging in our discussion while preparing food, caring for children, or trying to organize their new study spaces.

Table 3
Data Sources & Data Collection Methods

Data Collection Method	Data Sources
Demographic Questionnaire *(online through Survey Monkey)*	1. Self-identified DACA student at PRU
Individual Sequential Interviews *(In-person or VoIP – semi-structured)*	1. Self-identified DACA students at PRU 2. Negative Case Study Interview
Interviews with Campus Health Providers *(in-person or VoIP)*	1. Staff in CHC 2. Providers in CHC 3. Providers in Campus Counseling Center
Field Notes	1. Researcher Observations
Research Memoing	1. Descriptive & Analytic Memos

Memoing

Throughout the data-gathering process, we also engaged in regular memoing from both a descriptive and analytic lens. Descriptive memos provided a general overview of the research site, interview location, and other physical descriptors. By contrast, analytic memos acted as a reflection on the data analysis process, and the code development process and provided a real-time reflection on the emergence of patterns across data (Saldaña, 2009). Importantly, these memos also were a place for us to reflect on our emotions and subjectivity throughout the process. Memos became part of our dataset and assisted in influencing the process of analysis (Charmaz, 2006).

Data Analysis

Data analysis occurred simultaneously with data collection, and we engaged in the constant comparative method, a multistep process of data analysis that occurred at all stages of data collection (Glaser & Strauss, 1967). All data was analyzed, coded, and managed through use of the NVivo 12 Plus software package for Mac. Per Glaser and Strauss (1967), this process begins with the initial identification of a population of interest, a specific setting to study, and a central phenomenon of interest. In the context of this research, we explored DACA students at PRU with the goal of understanding their process of developing SWB. Second, we conducted initial sampling to identify concepts and common features of the experiences the DACA recipients share. We then began the process of open coding and refined our research protocol before engaging in theoretical sampling with a second group of DACA students. We continuously reviewed the data from my initial sample as we engaged in more deliberate axial coding of the theoretical sample. This helped ensure that our theory development was firmly grounded in the language and experience of our participants (Corbin & Strauss, 2015). Central to this was the process of coding the data, discussed at greater length below.

Coding

Consistent with grounded theory research, we engaged in iterative coding throughout the data collection process. This process encompassed open and axial coding (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1992). The work began with a process of open, line-by-line coding in which we started breaking down interview transcripts to compare and categorize data broadly. Our research team developed a substantial number of codes to describe, name, and classify emerging themes. In Vivo language or the language of our study participants, was used to develop codes because the expression of study participants often provided us with thick, rich, and contextual information (Corbin & Strauss, 2015). Focused thematic coding followed, in which we began relating the codes developed earlier in the analysis to find interrelationships and specifically identify conditions, contexts, and interactions that were shared among study participants (Charmaz, 2006).
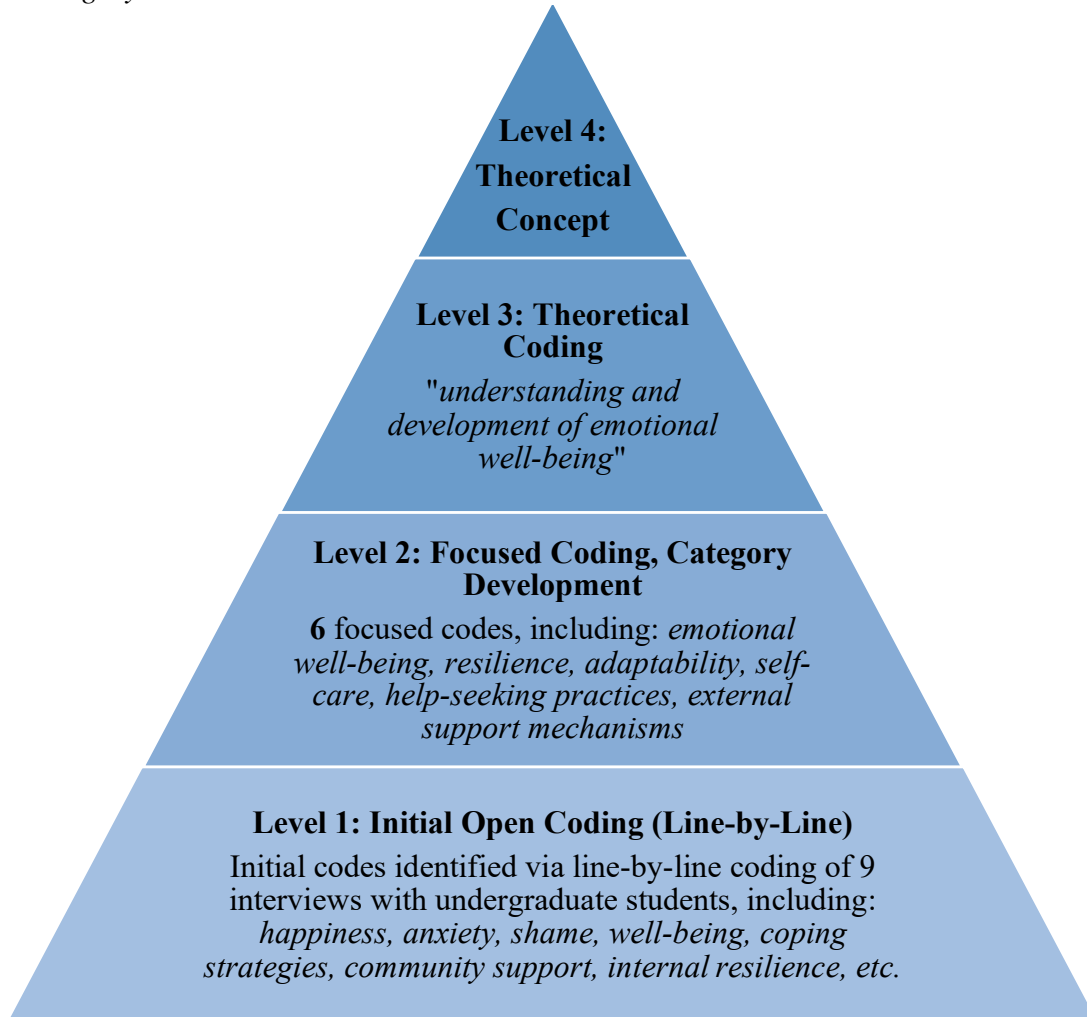
Addressing Methodological Weaknesses

According to Bryant and Charmaz (2007), some weaknesses of grounded theory have included: (a) a lack of standardized rules to follow for the development of a research protocol, the process of data analysis, or the identification of theoretical categories; (b) a large and often difficult to manage set of data, (c) the difficulty in removing researcher subjectivity from data analysis and interpretation, and (d) limited generalizability. In the context of our study, we have considered these four areas of methodological weakness carefully. We addressed the first weakness by designing this study in consultation with a grounded theorist who has experience in conducting studies that explore the lived experiences of individuals in health settings. Second, to allow our team a manageable study population, we set several important delimitations on inclusion to ensure that we worked with a specific population of students and allowed ourselves to remain focused. Regarding the third weakness, preparation, reflectivity, and subjectivity are inevitably necessary to acknowledge. In working with a research team, we discussed our experiences, decision points, and potential biases. By acknowledging our experiences and biases and incorporating strategies such as member checking and memoing, we sought to bring additional trustworthiness to this study (El Hussein et al, 2014). To address the final concern, limited generalizability, we recognized that this study is limited in scope, and the results have the potential to inform policy development for a small subset of students within a specific institutional context. We did not claim wide generalizability or intend to impose the findings of this study on students outside of the specific context of this research project. Rather, we saw this study as a model to encourage further research in the area of subjective well-being and mental health in DACA recipients.

Ethical Considerations for Conducting Virtual Research

In addition to conducting research that deepened our own understanding of how DACA college students engage in mental health help-seeking tendencies, our team was committed to conducting research that would have a positive impact on students who belong to the community under study. That said, several ethical considerations emerged when we made modifications to the research methodology.

Figure 2
Coding Pyramid

Level 4:
Theoretical
Concept

Level 3: Theoretical
Coding

"*understanding and
development of emotional
well-being*"

Level 2: Focused Coding, Category
Development

6 focused codes, including: *emotional
well-being, resilience, adaptability, self-
care, help-seeking practices, external
support mechanisms*

Level 1: Initial Open Coding (Line-by-Line)

Initial codes identified via line-by-line coding of 9
interviews with undergraduate students, including:
*happiness, anxiety, shame, well-being, coping
strategies, community support, internal resilience, etc.*

As previously mentioned, our research sought to understand three central phenomena among a marginalized population of students, namely subjective well-being, self-care, and help-seeking tendencies among DACA recipients. There was a distinct possibility that discussions with participants would elicit complex responses that could have caused some level of stress and emotional discomfort. Due to this risk, our team ensured that all potential concerns were explored and that study participants were provided with comprehensive informed consent and detailed handouts with information on counseling and other support services available through the university. This held true as our plans for on-campus interviews shifted to virtual. Additional ethical considerations needed to be made that we had not expected. This included the stress of role adaptation as students returned to live at home and, in some cases, became the primary breadwinner for the family. Questions that may have seemed "standard" became potential triggers for participants, and it was the obligation of the researcher to understand how these additional stressors may shape the conversation and psychological safety of the participant. Another significant ethical consideration of this project emerged regarding the confidentiality of students and the maintenance of privacy, especially given our snowball sampling process. This was a consideration in the initial research protocol, however, this evolved as we collected data through a Zoom camera. Video-based interviews added the potential of an additional ethical consideration as we, as researchers, were

invited into the personal space of participants. To ensure participant confidentiality was maintained, memos and fieldnotes on the physical environment in which the participant was "zooming" from were not taken or considered during the analysis phase (descriptions of the personal spaces were not utilized beyond to identify whether the participant was in a private space, shared space, balancing roles while interviewing, etc.).

To ensure participant privacy, all raw questionnaire and interview data, personal memos, and other relevant research material were stored securely in an external hard drive and on the internet in a cloud-based storage system with double authentication security. As interviews occurred with campus mental health providers and other staff, it was important that we ensured all discussions and sources of data adhered to both the Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPAA). In short, FERPA is a federal law that limits access to educational records and information to individuals and organizations that do not have legitimate educational interests in student records. In other words, FERPA limits information access to certain employees within a student's institution of high education or individuals and parties that the student specifically approves (U.S. Department of Education, 2018). HIPAA is a multifaceted law but relevant to this study, it provides standards to ensure that individuals have the right of ownership over their health records and further ensures that all health records are protected and remain confidential (Rowe, 2005). Our two-person research team were the only people who had access to all study data. Further, all transcribed data from questionnaires, interviews, focus groups, and research memos were de-identified by pseudonyms that the students and staff self-selected. We additionally ensured that we followed all IRB protocol regarding the safeguard and destruction of data per our university's IRB Office.

Study Limitations

Several limitations were associated with this study. First, the nature of the Trump administration and its anti-DACA policies has had a marked impact on the psychological well-being of many young LatinX immigrants (Jolie et al., 2021) which we posit may have impacted our recruitment efforts. This was due to participant concerns for their immigration status being inadvertently released or for identifying undocumented family members. During our recruitment phase, the U.S. Supreme Court was in the process of hearing oral arguments related to the constitutionality of the DACA program (Alulema, 2019), and several cities across the United States were announcing new policies to protect their DACA recipients and undocumented residents (e.g., through sanctuary laws) (Manfredi-Sánchez, 2020). These complex political realities had an impact on our ability to identify and recruit participants, given our host institution's concerns over data protection and student identification. Our research team was therefore required to rely on snowball sampling, a process that introduced us to students from similar communities on campus. This sampling method may have negatively impacted the diversity of information and experiences we collected through data collection. Additionally, given that this was a grounded theory design considering a topic with little previous study and relatively small participation, future research is necessary. Future research should consider scaling this study to include larger populations of DACA recipients, especially considering the more inclusive political environment and the return to regular on-campus operations that are occurring.

Conclusion

The COVID-19 pandemic significantly impacted academic communities across the world. Universities and scholars were required to modify their research protocols to ensure the safety of participants and researchers while continuing to obtain rich and relevant data. This paper considers how COVID-19 imposed modifications to research questions, recruitment practices, and methodologies during a grounded theory study of DACA recipients. Ultimately, these changes led to unexpected findings and richness of data that may not have been understood in the initial protocol pre-COVID. The modifications that were made began with the research questions themselves. The primary research question seeking to understand how undergraduate DACA students studying at a large public university understand and experience subjective well-being remained unchanged. However, a sub-question was added to the study to understand how COVID-19 has impacted other elements of their life and contributed positively or negatively to their well-being and sense of identity. In addition to the modification of research questions, changes were made to recruitment to emphasize snowball sampling rather than the reliance of on-campus groups and gatekeepers. Interviews were moved from on-campus spaces to a virtual environment by using VoIP technologies, and the researchers had to consider and address additional ethical issues given the immigration status of participant family members. These modifications changed the trajectory of the research questions and the expected findings. The factors influencing participant well-being on campus may not have included findings such as role conflict, caregiver expectations, transition, and role balance. Ultimately, a follow-up study is needed to determine if study participants returned to on-campus learning and how these transitions after the COVID shutdowns may have impacted their general well-being.

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