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Making Meaning of COVID-19: An Exploratory Analysis of U.S. Adolescent Experiences of the Pandemic

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Abstract

The COVID-19 pandemic will mark the lives and trajectories of adolescents who lived through it. The pandemic
upended social contexts, disrupted schools, and, for many, impacted the physical, financial, and psychosocial
health of themselves, their families, and their communities. Contextual changes, however, are not solely
deterministic of developmental outcomes. As Bronfenbrenner's Ecological Systems Theory and Spencer's
Phenomenological Variant of the Ecological Systems Theory demonstrate, young people interpret, make
meaning, and respond to socioecological contexts as part of their developmental processes. The current study
explored meaning making qualitatively through how adolescents in the United States were experiencing COVID-
19. Participants were asked via an online survey about their emotions, how they felt COVID-19 was impacting

them, and challenges in their lives. Participants (N = 816, mean 15.86 years old) came from 18 states and responded between April and June 2020. Thematic analyses identified 3 themes related to experiences of shifting socioecological context: inadequacy of virtual means of communication; interconnection of daily routines, social life, and mental health; and missing out on key experiences and milestones. Limited socializing fed into emotional responses and connected to the disruption of everyday life. Further analysis focused on Latino/a participants per the pandemic's disproportionate impact on Latinx communities and 2 subgroups by location that had experienced differential extremes of COVID-19 rates during this timeframe. These analyses allowed for examination of different patterns based on socioecological contexts. Translational impacts for those working with young people include considering their processing of the varied and expansive socioecological shifts caused by COVID-19.

What is the significance of this article for the general public?

The COVID-19 pandemic has disrupted the social, physical, and educational development of adolescents. The present study explores how these young people interpret and respond to the changes and challenges they face during this time. The analyses of their perspectives highlight the need for individuals and institutions who work with youth to support young people in reforming social connections (particularly beyond technological means) and reimagining and reframing future trajectories.

KEYWORDS:

Introduction

For young people, the COVID-19 pandemic resonated across socioecological contexts, with effects on societal norms, institutions, families, friends, and themselves. In March 2020; states across the United States began implementing quarantines to halt the virus' spread. These measures had broad effects on many adolescents' daily lives: disconnecting them from social networks, disrupting schooling, and impacting physical, financial, and psychosocial health of themselves and their families (Panchal et al., 2020). Despite growing evidence that many young people experienced negative academic and mental and physical health effects from the pandemic, such significant sociocultural challenges can lead to growth opportunities depending on individuals' interpretation and response (Spencer, 2006). Given the psychological and developmental processes in adolescence connected to socializing and school settings (Kuhn & Franklin, 2007), there is little doubt that the pandemic will shape young people's trajectories. Such momentous disruptions across socioecological contexts—for example, the Great Depression—have been shown to motivate understandings of self, social cognition, and life outcomes for those who come of age amid these times (Elder, 1974; Habermas & Bluck, 2000).

Still, historical societal markers like the COVID-19 pandemic are not deterministic in young people's lives. Development involves an iterative, bidirectional process rooted in how individuals experience their socioecological contexts. This meaning making process can be understood as how they interpret, make sense of, and cope with the settings, changes, norms, risk and protective factors, and relationships that imbue their social systems (Spencer, 2006; Spencer et al., 1997). Considering the developmental influence of COVID-19 must entail a focus on how young people experienced the changes in and across different ecosystems (e.g., economic changes for family or self, government actions that shape health care systems, remote schooling). In other words, a socioecological lens must be situated within understanding of how adolescents were making sense, responding, and developing world views and identities. While there has been a plethora of research emerging about the impacts of the pandemic on adolescents, less work has been focused on how they are making meaning of their experiences.

This study explored how U. S. adolescents were making meaning of COVID-19 at the start of the pandemic by focusing on themes in their description of their experiences. This study was part of a broader survey project asking how COVID-19 was affecting them, their emotions related to the pandemic, challenges in their lives and communities, and changes they foresaw in the future. This paper presents analyses focused on how these young people were making meaning of the pandemic. Drawing on Spencer's Phenomenological Variant of the Ecological Systems Theory (PVEST; Spencer et al., 1997), analyses focused on how participants described experiencing and making sense of changes in their ecosystems and possible differences in demographic and geographical factors may relate to the salience of different issues. This focus on adolescents' interpretations and responses to the pandemic provides applicable insights to parents, educators, and others working to provide adequate and relevant supports.

Adolescents and the COVID-19 Pandemic

Though adolescents were largely spared and were at low risk for the direct health impacts of COVID-19, the pandemic significantly affected other aspects of their wellbeing, including their physical, social, and mental health. Young people described difficulties in maintaining typical exercise routines and sleep schedules, frustrations with feeling trapped indoors, and struggles with decreased in-person interactions (Scott et al., 2021; Rogers et al., 2021). They utilized strategies like digital connection to cope with these challenges, but many found these means insufficient to meet desires for emotional connection and social support (Waselewski et al., 2020). The pandemic's effects on adolescent mental health are particularly poignant, as many experienced increased levels of anxiety, depression, loneliness, and stress (e.g., Samji et al., 2021). There is evidence that these negative emotions emerged from COVID-19-related worries, increased conflicts with parents, and online learning difficulties as schools transitioned from traditional to virtual and hybrid learning environments (Golberstein et al., 2020; Magson et al., 2021). While some young people found comfort in being able to shape home learning spaces to their needs, many cited this shift to remote learning as a source of stress, describing challenges with focus, work ethic, productivity, and time management in online learning environments (Schaefer et al., 2020; Scott et al., 2021). More generally, pandemic-related school closures and academic disruptions led to learning loss, decreased access to learning, increased screen time, and a lack of interaction with same-aged peers (Kuhfeld et al., 2020; Wang et al., 2020).

While impacts on adolescent mental health and learning were widely distributed, they were also unequal. Technological barriers such as lack of electronic devices and reliable broadband Internet resulted in unequal access to online education for students from low-income communities during pandemic-mandated remote learning (Reich et al., 2020). More broadly, low-income and communities of color in the U.S. were also disproportionately affected by the pandemic, experiencing heightened levels of food insecurity and financial hardships (2020; Macias Gil et al., 2020; Peek et al., 2021). Employment instability and economic uncertainty contribute to financial stresses within a family, which can heighten children's stress and anxiety (United Nations, 2020). The pandemic exacerbated these impacts as access to social and psychological supports available via schools diminished (Lewis, 2020). Some have predicted that youth from these already vulnerable populations will experience higher rates of disconnection in the coming years because of the pandemic as they are cut off from learning and social interaction and as a result drift away from high school, postsecondary education, and the workforce (Lewis, 2020).

One vulnerable population is the Latino/a community, which has been disproportionately impacted by COVID-19. Macias Gil and colleagues (2020) note that COVID-19 cases in the US were disproportionately higher for Hispanics, and that this was particularly problematic because they are the racial/ethnic group with the lowest rates of medical health insurance coverage. Compounded with language barriers and immigration status, access to adequate necessary health care and essential services was more challenging. Latino/a individuals were overrepresented in industries most affected by the pandemic, resulting in disproportionate employment losses

along lines of race and ethnicity (Zamarripa & Roque, 2021). These impacts within the Latino/a community only serve to exacerbate the challenges faced by adolescents from socially and economically disadvantaged backgrounds (Reich et al., 2020; Peek et al., 2021).

Adolescent Development, Socioecological Context, and Meaning Making

Based in Bronfenbrenner's Ecological Systems Theory (EST; 1992), a socioecological approach to understanding the COVID-19 pandemic and its effects on young people may offer insights into their developmental processes. The developing person at the center is most directly engaged with the microsystem, which includes one's immediate environment and the people within it. In 2020; adolescents' engagement with peers, some family, and others in the microsystem was deemed unsafe, thus severing or complicating these relations. Moving outward, the mesosystem includes relations among microsystems. During the pandemic, these connections (such as between families and schools) were disrupted or made more complex: in many cases families had to make home, work, and school the same place. The next layer, the exosystem, involves settings that affect the developing individual, but in which they are not an active participant. For example, local health care systems are beyond most adolescents' immediate lives, yet the strain on and concern about these during peaks in the pandemic could indirectly impact young people. At the most distal level, the macrosystem includes broader cultural context, including norms, laws, and political context that indirectly influence the developing person. As the pandemic swept across the country, federal, state, and local governments adopted educational, public safety, health care, and even immigration policy. These efforts created shifts in norms and expectations around interpersonal behavior, physical touch, and areas of life, as well as political tension that all fed into increased stressors for individuals (Gruber et al., 2021).

COVID-19 permeated each layer of adolescents' ecological system; however, contextual factors and changes are not deterministic of outcomes. Rather, individuals make meaning of what happens in their families, communities, and societies. Differential positionality and meaning making within socioecological contexts can be expected to bring about differential developmental consequences and influences on future trajectories. As an extension of EST, PVEST (Spencer, 2006) situates socioecological context as a first step in understanding broader developmental processes. An individual's net vulnerability is a balance of risks and protective factors in their lives. For young people in 2020; this may have included personal or family health, geographic location, and structural inequities (e.g., in relation to race) that shape how their community was impacted by the pandemic. Second, environmental contexts are interpreted by individuals, who experience them as challenges and supports. For example, a young person doing remote schooling may experience parents' efforts to hold them accountable and keep up with their learning as a challenge rather than a support. A third step involves an individual's responses—emergent reactive coping processes—to the experience. These can be adaptive or maladaptive given vulnerability, perceived supports, and social context. An example is anger and frustration experienced by adolescents whose social lives were limited by mandated quarantines. Responses are adapted and stabilized as emergent identities based on how peers, family, and others in microsystems treat and respond to these coping strategies. Lastly, these strategies link to productive or unproductive life outcomes (Spencer, 2006; Spencer et al., 1997). The last steps point toward COVID-19's potential developmental impacts as adolescents' meaning making of socioecological context become stable parts of how they understand who they are and their futures. The processes begin with how they experience and understand environments they are embedded in and the changes, risk, and protective factors within these.

In this way, identity is constructed through engagement across contexts (community, home, school, peers) as adolescents integrate myriad experiences into their understandings of themselves and their place in social worlds (Swanson et al., 1998). Disruptions to schooling, extracurricular activities, and socialization with peers brought about by COVID-19 affected these processes. PVEST highlights the need to investigate how young

people experienced and interpreted these changes to understand the impacts on their developmental trajectories.

The Current Study

Based on a socioecological framework of young people's meaning making, the current study explored how adolescents from varied contexts experienced the beginning of the COVID-19 pandemic. Participants were asked about emotions, what was salient in their experiences, and how it was influencing thinking about themselves and their communities. PVEST asserts that young people will uniquely make sense of experiences based on differential risk and protective factors, as well as how they interpret and cope with these aspects of social ecologies. While it is important to understand the changes (in schools, peer groups, etc.), PVEST draws attention to the developmental significance of how young people interpret and respond—that is, their meaning making. The study investigated meaning making and perspectives of a sample of adolescents to explore how widespread changes due to the pandemic were experienced.

Method

An online survey was administered to adolescent participants between April and early June 2020. During this time, schools were closed or remote and many states had quarantines and stay-at-home orders in place. Recruitment occurred via school administrators and teachers, as well as nonprofit educators who work with youth. Once their permission was obtained, an e-mail was sent to parents/guardians informing them of the upcoming survey, providing contact information if they had any questions or concerns, and offering the option to have their child opt out before it would be disseminated. An invitation e-mail was then sent to students, whose consent was obtained via an online form before participation. Eligibility criteria was being at least 14 years of age and in school. All procedures were approved by the researchers' Institutional Review Board.

Sample

The sample included 816 adolescents, with 791 completing all questions. Many came from Nebraska (30%) due to high participation from one school. Other states with sizable representation were Wisconsin (13.6%), Illinois (13.9%), New York, (11%), and Hawaii (6%), with 13 others represented by smaller numbers of participants. Large city residents were the largest group (40.7%), followed by those from suburbs (32%). *M* age was 15.86 years old (range 14–18, *SD* = 1.36), 73% identified as male, 23% as female, and 4% as nonbinary. The gender imbalance was due to a few single-sex schools. Participants mainly identified as White (67%), with 9% identifying as Black, 19% as Latino/a, 7% as Asian, and 10% as multiracial. The majority were in their early years of high school (64% were 9th or 10th graders), and only 11% were seniors. Over half (56.8%) indicated that their parents had a college degree, while about a tenth stated their parents did not have high school degrees and another tenth chose not to answer.

Material

The survey consisted of 21 close-ended questions and 11 open-ended questions answered online via Qualtrics. The former consisted of established scales, but were not used in the analysis for the current article, and the latter were developed by the researchers to address the research aims. Open-ended questions (see Appendix) probed 1) emotions in response to COVID-19, 2) sources of information, 3) impacts and challenges experienced; 4) thinking about themselves and their place in society in relation to COVID-19; and 5) thinking about their future trajectories and opportunities. Responses to question 2 were excluded from the current analysis as they were not relevant to the research aims of the current study.

Analytic Procedure

All open-ended responses were analyzed collaboratively by the research team with NVivo (Version 12) software using adapted thematic analysis (Braun & Clarke, 2006). Responses varied in length, but most were at least one sentence of five to ten words. Based on study objectives, codes were developed inductively from the responses. All team members—the principal investigator with expertise in adolescent development and qualitative research and two trained graduate students—participated in the process. Each member read a random sample (N = 400) of responses. Then a codebook was developed for each question. For example, in response to the question that asked participants what was the biggest challenge they experienced in relation to COVID-19, codes included college, career trajectory, summer plans, extracurriculars, being homebound, isolation, and mental health. The codebook for each question was applied independently by two coders to all responses to the corresponding question. All responses were thus read by two research team members, with each coder reading all responses to four of the five pertinent questions. The independent applications of codes were then compared within a given question, with kappa scores ranging from .4 to .75 (McHugh, 2012). Discrepancies were resolved collaboratively by returning to the transcriptions (Braun & Clarke, 2006; Thomas & Harden, 2008). In these meetings, researchers also took notes on patterns for each individual question. Next, all team members met to discuss patterns across questions and define themes. This process included returning to the data and looking across participants' responses. These discussions involved collapsing themes that did not have enough data as support and clearly delineating themes as separate from each other (Nowell et al., 2017). For any participant, multiple themes could apply, and themes incorporated patterns across separate questions.

Finally, separate analyses by certain demographic factors were conducted. Latino/a participants' responses were analyzed due to evidence and discourse about the pandemic's disproportionate impacts and its economic and health reverberations in these communities (e.g., Macias Gil et al., 2020). Though other racial/ethnic groups (such as African American communities) have also been deeply impacted by the pandemic, our sample did not allow for analyzing this subgroup. The first coding procedure was blind to demographics, and we returned to the data and separately reread responses and identified themes for Latino/a participants. In this sense, a separate codebook was created for Latino/a participants, with all procedures following those outlined above. For geographic differences, responses from New York City (N = 100) and Hawaii (N = 47) were also coded separately in a second round to explore thematic differences. These two locations were opposite in terms of the extent to which COVID-19 had spread within the community during the study timeframe (Frey, 2021). From April 1 through June 30, 2020; Hawaii averaged 7.6 new cases a day as a state, while New York City reported 1,632 per day over the same stretch (The COVID Tracking Project, n.d.; NYC Health, 2021).

Results

Analyses identified three primary themes related to experiences of shifting socioecological context. The themes touch on various ways these young people demonstrated shared experiences of COVID-19: social disconnection and inadequacy of virtual means of communication; interconnection of daily routines, social life, and mental health; and missing out on key experiences and times they expected to enjoy. The three themes are detailed below, before presenting differences in the focused analyses on Latino/a participants and by location.

Social Disconnection and Inadequacy of Virtual Means of Communication

Participants described feeling isolated and disconnected as quarantines and remote schooling did not prevent interactions with friends, family, and teachers, but forced interactions to move online. While this generation of adolescents has grown up with these forms of communication permeating their lives (Underwood et al., 2015), many participants described struggling with not feeling connected without face-to-face interactions. Some participants explicitly acknowledged that virtual means of communication were inadequate for social connection. During a time of stress and needing to rely on others, these young people expressed feeling that

limitations on physical movement—specifically face-to-face interactions—were a significant impediment to drawing on social support to cope. The reliance on virtual interactions deepened struggles with COVID-19 restrictions. One participant (#347) demonstrated this double bind, stating, "I'm being confined in my house struggling more in school and experiencing more problems than normal. Lack of friendship makes it only worse. Social media can't make up talking to a person face to face and in their presence." Other participants were less direct, but similarly listed the lack of in-person connection with friends as one of several stressors affecting their psychosocial wellbeing:

> Everything has dramatically changed. My social life has shifted completely online. I haven't seen my friends in-person in about two months and for sure won't see them for another. … My mental and physical health has deteriorated significantly as the pandemic and stay-at-home orders have gone on. (#45)

Other participants described the lack of informal regular in-person connection with friends and families as significantly impacting their lives. They did not explicitly mention virtual means of communication, but noted missing hanging out with their friends, face-to-face, hallway, lunch, and extracurricular interactions with peers, routine family gatherings, and after class chats with teachers. One participant (#564) noted, "Not being able to see people besides my immediate family every day has proved to be the biggest challenge of this pandemic. This is after I would normally see many of my teammates and students every day at school." Others described such small moments in school as "life-giving," "motivating," and simply "enjoyable." A salient element of this theme was the inability to regularly connect with extended family members whom participants described as offering informal mentorship, companionship, and belonging.

In line with PVEST, physical distancing required by quarantines and remote schooling was experienced by many as a challenge. Some were left without usual coping strategies for personal, school, and social challenges: face-to-face connection with friends and informal, motivating interactions with peers, teachers, and family. Social connection and exploration are critical elements of adolescent development, as peer and friend interactions play integral roles in emerging identities (Arnett, 2014). The predominant individualistic culture in the U.S. creates expectations of defining oneself within these social milieus (Arnett, 2014). Social interaction in schools and with peers creates space for beginning to explore ideologies, future selves in relation to academics (i.e., ideas about college and career options) and values (Eccles & Roeser, 2011).

With the disruption of these expected and relied upon parts of their lives, many participants expressed struggling to explore and define their identities. One participant (#120) stated:

> As a 16-year-old boy, I kind of need to go out and hang out with friends. I know everyone faces what their social life is like in different ways, but high school is supposed to be the time I find out who I am and what kind of person I want to be and I can't really do that when I'm stuck inside.

Therefore, in response to these perceived challenges, an emergent coping response for some seemed to be identity-based challenges.

Interconnection of Daily Routines, Social Lives, and Mental Health

Participants described impacts across various domains including social lives, daily routines (going to school, the gym, stores, etc.), and mental health. This second theme across responses was that daily life, social lives and mental health were not just isolated domains where they were experiencing distinct challenges, but rather were intricately interwoven. The changes across socioecological levels were felt acutely as they struggled to effectively adapt. Respondents detailed an interconnected and overwhelming experience of disruption across

socioecological levels, as stay-at-home orders and school closings prevented hanging out with friends, going to different places in their community, and accessing their usual coping supports.

Many participants spoke to the pervasive nature of the pandemic's effects. Challenges they experienced were not isolated—such as not seeing friends, changes in schooling, or family health concerns—but were interlocking. The extent of these experienced challenges was linked to intense emotions including feeling despondent, sad, and/or overwhelmed. One participant listed several aspects of their life that had been affected while juxtaposing how they were feeling currently with the positive and enjoyable behaviors and emotions prepandemic:

> It's affecting my life all the time. I miss my friends, I miss school, I miss the gym, I just want to go out and I absolutely hate losing touch with all of that … because I was on a good path right before we all had to go into quarantine. I was socializing well, I was living life, I was happy, and I was becoming more confident as I continued working out at the gym. Coronavirus took all of that from me, and so many other kids like me. (#687)

As with others, this adolescent described widespread impacts across social life, physical health, and neighborhood contexts (i.e., the gym). These disruptions were then directly tied to what this participant noted as feeling less happy, less confident, and disconnected from who they were.

Others linked these impacts to learning and educational contexts. They expressed missing daily routines, interactions, and structure of in-person schooling. The disruption in this key ecological context reverberated across aspects of their life from socializing to academics to mental health. The effects on these domains were interconnected: not being able to go to school and depend on its daily rhythm and community meant less sense of connection, more struggles with motivation and focus, and greater stress, anxiety, and despair. One participant (#68) wrote, "Because I cannot go and take advantage of the school environment to stay concentrated on my work, and I do not get the motivation I get around my friends, coaches and peers."

Other adolescents noted intense mental health struggles based in being disconnected from these ecosystems and the people in them. One participant (#130) wrote, "This current situation has me feeling isolated and alone. My mental health has definitely taken a toll, and depressive, harmful thoughts have measurably increased. My grades have plummeted." These adolescents described not only lacking usual sources of support or belonging, but also experiencing a deeper despair because of how closely connected school, social, and daily lives were to their sense of self (i.e., their identities). This connection between disruptions in immediate ecological contexts and identities was exemplified by one self-described extroverted participant (#222). He articulated how disconnection from this part of his self-concept fed into an unshakeable sadness:

> The most meaningful impact of COVID-19 on me is the change in my social life. I am a very social person, so being locked up at home severely limits my interactions with friends. I do talk to them over video games and stuff, but in general not seeing, talking to, or hearing people makes me feel lonely and bored. I am rarely ever sad during the school year, and if I am, it doesn't last more than a few hours. Nowadays, I feel sad quite often, maybe even depressed.

Like other participants, he described how his sense of himself and thus his mental health were deeply affected by disruptions in his daily interactions and routines, from being homebound to not connecting with friends in person to lack of engagement at school. He then noted struggling to cope effectively with sadness and despair, common emotions expressed by many participants.

In line with PVEST, COVID-19's reverberations across socioecological contexts were similar for these adolescents even as they each made unique meaning of their experiences. They expressed high levels of stress: similar feelings of being overwhelmed and not able to cope were tied to lack of motivation and effort in school, a sense of unmooring from social supports and identities, and mental health struggles. The disruptions across various areas of their life were experienced as challenges, with many seemingly lacking supports to cope adaptively with these difficulties. Given a lack of perceived resources—many were isolated and homebound, restricted in physical outlets, disconnected from social spheres—they struggled with motivation and focus, including in school. For some, these challenges touched on emerging senses of self. Their coping with this dissonance involved sadness and despair bordering on depression.

The Sense of Missing Out

A third theme involved interruptions in participants' expectations and norms about adolescence and high school, leaving participants feeling that key momentous life experiences had been taken from them. Respondents noted a variety of activities, milestones, and elements of adolescence that they had looked forward to. Amid the pandemic, these imagined and planned-for experiences were no longer possible. Many of these were social markers in adolescence. Participants talked about proms, summer jobs, graduation, and hanging out with friends, which they described as encompassing what it meant to be a teenager and progress through high school. For example, one (#657) wrote that physical and social isolation inhibited their development: "It is keeping me inside and restricting my personal life. It is preventing me from getting a proper education and participating in healthy social activity for a teenager." Others referred to specific experiences, like one (#210) whose long-awaited 16th birthday party was canceled:

> I spent my sixteenth birthday (my sweet sixteen) in quarantine, and I didn't even get to have dinner with either sets of my grandparents or have a sleepover with even just one friend. I wasn't even allowed to get a cake from the grocery store because we didn't know enough about the virus at the time to trust that it was not airborne, and we didn't have social distancing guidelines in place yet.

For these young people, key experiences and markers of adolescence had become impossible, representing the negative impact of the pandemic on their lives.

Other respondents invoked a sense of missing out in reference to planned steps in their future trajectories. While a few mentioned canceled extracurriculars or summer opportunities, a common reference was to the college search process and future college experience. Participants expressed concern they were missing out on prepping for and taking tests, visiting, and selecting places to apply to, and ultimately having a full on-campus experience. Missing out on the elements of process was an immediate concern linked to their future college choice: "The main problem … is the ability to visit possible colleges during the actual school year. I will not be able to visit as many colleges as I hoped and now need to choose from my home, a hard endeavor" (#101). Others described more extended concerns about future trajectories and experiences:

> I am worried about the possibility of touring colleges and ultimately going to college in general. While I still have two years before I go to college, I am already interested in thinking about my future, and I know that touring colleges is the best way to get a feel for what the school is like. (#23)

Across varied expressions of missing out, an underlying element was disruption in norms and expectations about adolescence. Conceptions of what it means to be an adolescent are marked by both cognitive and contextual factors. The salience of identity, future selves, and social positionality are rooted in processes involving brain development and physical maturation (Kuhn & Franklin, 2007; Markus & Nurius, 1986). Sociocultural context, in

turn, drives specific norms and expectations: milestones, achievements, what is valued as necessary for development, and markers of the transition to adulthood (Arnett, 2014; Swanson et al., 1998). Participants described experiencing dissonance between norms and expectations and changed socioecological contexts due to the pandemic. COVID-19 disrupted typical milestones of development, including school, family, and personal markers, and many participants experienced these changes as a challenge marking both the present and future.

Demographic Differences

EST and PVEST highlight the array of contextual factors that influence experiences and trajectories as young people make meaning and develop. The analyses explored differences in relation to the overall themes for Latino/a respondents due to differential impacts of the pandemic on their communities. Social isolation and a general sense of missing out were not as prevalent in these participants' responses (less than a fifth of this subgroup). Instead, academic challenges, which were not a part of themes identified across the entire sample, were a frequent part of how Latino/a participants described their experience of the pandemic (34% of these respondents noted). In particular, they detailed growing stress and difficulty coping with the myriad of changes impacting their grades, such as moving online presenting distractions in their home environments. For example, one (#29) noted that, "It's also been harder to learn with all my siblings in one building," while another (#356) mentioned that, "Being home offers much more distractions and I'm not doing well on getting homework turned in on time."

Building on the salience of home and family contexts, Latino/a participants also described the pandemic as presenting health and job-related challenges for their families. One participant (#632) demonstrated this dual impact, connecting both with anxiety and stress:

> I fear that it is affecting both my school life and my home life. I missed out on a lot of my sophomore year and I feel that it impacted my education because I do not feel at all prepared for next year. It is also affecting my home life because my parents are stressed and both have either lost their job or have had reduced hours and pay.

These findings speak to how exosystemic factors impacting microsystems shaped experiences of the pandemic. Latino/a communities were disproportionately affected by the disease itself, as well as by economic reverberations due to the type of jobs that were lost and were deemed essential (Macias Gil et al., 2020; Vargas & Sanchez, 2020). These impacts may have led to greater pressures on Latino/a respondents: anxieties related to possible exposure of family members, increased caregiving responsibilities as older family members continued to work and younger ones were home being schooled remotely, and financial stressors. These challenges fed into concerns about academics, which became more difficult to prioritize.

For geography, a targeted analysis compared participants from Hawaii and New York. In relation to the three main themes, participants from Hawaii expressed more concern over being homebound and physically restricted. Over a third described concerns about isolation in relation to physical health, not seeing family, and a growing sense of boredom. Being active and outdoors were important parts of their everyday lives and identities. For example, one (#110) wrote about impacts on their life that, "My physical and active lifestyle maybe, but my overall well-being I'm completely fine," while another (#112) similarly described, "The biggest challenge for me is staying in shape since I can't go to school I need to stay in shape at home." Physical isolation also tied into monotony and social disconnection. Multiple participants mentioned being homebound as linked to not seeing friends and family. One (#115) noted, "The biggest challenge for me is not leaving my house. I am used to going out once and a while and also seeing my other family members or friends but now that we must stay home it has been hard."

In contrast, just under half of New York participants emphasized social aspects of isolation and connected mental health impacts (compared to under a fifth of those from Hawaii). Salient to their experience of the pandemic was the inability to engage with friends in person across varied contexts. This limitation presented mental health challenges: social isolation led to loneliness, disconnection, and despair. Participants linked deep emotional responses to this experience, such as "I struggle to be detached from most of the world" (#560) and "It just makes me feel hopeless" (#540). These respondents also often expressed concern for future academic and employment opportunities. These responses described a sense of uncertainty; they noted how college and career plans had been disrupted with little clarity about how they might be resolved. One (#566) described the biggest impact on him as "My ability to visit colleges, and eventually my ability to get a job." He continued later, "With so many people out of work and businesses closing there will be so much competition for jobs and how do I, a fresh out of college student, look next to a jobless parent who needs to feed their children." This focus on the future may have been tied to age-related factors: in comparison to 30% of the overall sample, 40% of participants from New York were in 11th or 12th grade, when postsecondary plans are likely more salient.

Discussion

This paper explored how a sample of adolescents made meaning of the pandemic by analyzing their descriptions of its impact on their lives. This framework followed PVEST—a phenomenological ecological systems theory—that defines meaning making as a process of interpretation and response of environmental factors and variables. To this end, this study focused on their perceptions of changes and supports to understand what was salient to them, rather than externally imposing risk categories or determining negative outcomes.

Overarching themes were social disconnection and inadequacy of virtual means of communication, interconnection of daily routines, social life, and mental health, and a sense of missing out on key experiences and times in adolescence. These findings connect with emerging research that indicates a rise in mental health challenges during the pandemic (e.g., Fegert et al., 2020; Lee, 2020). Work with other populations has also found, however, that academic and physical health challenges were greater concerns than friends (Scott et al., 2021), whereas the current study identified social concerns as interwoven with mental health and experiences of remote schooling and quarantine. In line with PVEST, this variation may be due to different localized and culturally-specific contexts as young people make meaning. For example, with the New York City sample in the current study, isolation may have been more prevalent as the pandemic trapped them within apartments, in sharp contrast to their prepandemic daily lives in the city. Similarly, academic challenges were a theme for Latino/a participants, which may be due to a cultural value of education interwoven with extreme economic impacts of the pandemic on these communities (Vargas & Sanchez, 2020).

Across the themes in participant responses was a sense of experiencing the many changes in different contexts as mental and emotional challenges. To this end, their meaning making entailed an interpretation of the changes as stressful and difficult to cope with. Other research has highlighted increased mental health struggles and needs of adolescents during the pandemic (e.g., Magson et al., 2021). These findings link into a research base prior to the pandemic that linked social isolation and loneliness to elevated rates of depression and anxiety in adolescents (Loades et al., 2020). In the current study, many participants highlighted how limited socializing fed into emotional responses and connected to the disruption of everyday life and milestones.

The current study's findings, guided by PVEST, provide insight into young people's experiences of the pandemic, the ways they coped with this experience, and how it has shaped their identities. This framing highlights interaction between shifting socioecological contexts and individual coping for these adolescents. As further studies emerge, it will be important to explore common findings, divergences, and consider developmental impacts as these youth further define identities, mature into adults, and go on to higher education and careers.

Limitations

This study was not intended to be representative, and it is important to recognize the sample was predominantly male, especially given gender differences in rates of adolescent mental health issues prior to 2020 and care-taking responsibilities during the pandemic (Rogers et al., 2021; Waselewski et al., 2020). Beyond limitations with generalizability, the study was conducted primarily in April 2020; during the height of quarantines and before George Floyd's death (May 25, 2020) and protests that followed. Participants' responses are situated within a chronological frame: before it was clear when vaccines would emerge and amid other salient public discussions (e.g., Black Lives Matter, whether schools should be remote). These dynamics are part of the complexity and flux of the chronosystem in EST. While the current study provides a snapshot, it is part of a longitudinal, multifaceted project to explore how a subset of young people are making meaning of COVID-19 over time (Power & Velez, 2020). An additional important limitation was that Latino/a participants were the only racial/ethnic subgroup analyzed. As noted in the methods, other minoritized communities have been deeply impacted by the pandemic, but this sample did not include enough representation from them for separate analyses.

Translational Impacts

This study's framing and findings can inform supportive efforts of counselors, educators, families, and other actors in young people's microsphere. Adolescents' differential meaning making of experiences of COVID-19 demonstrates the need for nuanced thinking about supporting the psychosocial and intellectual development of adolescents who lived through significant changes and disruptions. A socioecological lens offers an effective path for building supports that are attentive to their understandings, coping responses, and emerging identities. The findings for Latino/a participants speak to considering greater attention to the experience of systemic changes: changes in home and family lives (which can be linked to economic and health care inequities) were salient challenges that deepened academic struggles. As another example, a limited focus on direct impacts for young people in Hawaii and New York may assume the latter were more deeply impacted because of high rates of COVID-19 or because of different rates of mental health concerns. This study has highlighted that the two groups may have experienced similar challenges, but through different interpretative processes: Hawaiian respondents often situated physical isolation as a root of other challenges and those from New York focused on social detachment.

This adolescent generation will be marked by living through the COVID-19 pandemic at a key point in development. This study contributes to a growing research base on COVID-19's impacts on them, with implications for identities, values, and mental health. For those who work with young people, the findings have at least two broad implications. First, as others have noted, there may be a need to reform social connections (Loades et al., 2020). A first major theme from these participants was social disconnection and inadequacy of virtual means of communication. This generation is technologically savvy, but online formats and social media do not seem to be sufficient for belonging and social development. Coupled with changes in daily routines, their mental health and trajectories were upended, as the second primary theme indicated. Overall, then, it may be helpful for public health experts, mental health professionals, educators, and others who work with youth to help adolescents navigate social connections as in person interaction resume and help them reestablish important social connections.

Second, disruptions in expected experiences and opportunities may mean young people need support reimagining future trajectories and reframing. Our third main theme—the sense of missing out—highlights that a salient part of the experience for many of these participants was missed developmental markers. Such events and milestones can be important elements in the narrative identity building that young people engage in during this time in the life course (McLean, 2005). These myriad challenges could be acknowledged and professionals working with youth could provide them with space and support to reframe the meaning they attach to the

disruption of these expected milestones and feeling like they were missing out. In fact, a few participants mentioned positives that may hint toward such reframing; describing having more free time, developing new hobbies, enjoying increased time with family, or appreciating what they had. This may not be possible or necessary for all adolescents—particularly given COVID-19's differential impacts—but in line with literature on psychosocial resilience, they could be encouraged to reflect with a focus on coping, resilience, and growth amid the challenges (Tusaie et al., 2007). Such efforts could be coupled with adequate supports across individual adolescents' ecosystems, such as therapy and reimagined college and career guidance given the economic and academic changes brought by the pandemic (e.g., Savitz-Romer et al., 2021).

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Appendix: Survey Open-Ended Questions

- Please respond to the following questions with short written responses. Your participation is voluntary, and you may skip any question that you do not wish to answer.
- What emotions are you feeling when you read or hear about the COVID-19?
- Where do you get most of your information about COVID-19 and about decisions by the government related to it?
- How could that information be improved to be more useful to you and others?
- How do you think that this is affecting your life at present (or not)?
- What is the biggest challenge for you related to the current situation of COVID-19?
- What changes do you think COVID-19 will cause in your life in the near future?
- What is likely to change in your thinking about your long-term future?
- What is the biggest challenge for your community related to the current situation of COVID-19?
- In what ways might this epidemic change your community?
- In what ways might this epidemic change your country?
- Is there anything else you would like to share about how you are thinking and feeling about this?