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Maegan Ruiz

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WASHINGTON UNIVERSITY IN ST. LOUIS

Department of Education

Reflecting on Resilience: A Large-scale Qualitative Study of Adolescents' Experiences of  
Resilience during COVID-19

by

Maegan Ruiz

A thesis presented to  
Washington University in St. Louis  
in partial fulfillment of the  
requirements for the degree  
of Master of Arts

August 2023  
St. Louis, Missouri

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## ABSTRACT OF THE THESIS

Reflecting on Resilience: A Large-scale Qualitative Study of Adolescents' Experiences of Resilience during COVID-19

by

Maegan Ruiz

Master of Arts in Education

Washington University in St. Louis, 2023

Professor Christopher Rozek, Chair

Resilience is a dynamic process of positive adaptation when faced with significant adversity. The extensive and protracted disruptions to adolescents' academic and social engagement during the COVID-19 pandemic created unique challenges, which have included concerns about academic/work habits, social connections, physical health, and mental health (Scott et al., 2020). In what ways did adolescents operationalize resilience during the COVID-19 pandemic? And, what can that tell us about how we should conceptualize resilience generally? At the end of the first full school year of the pandemic in April 2021, we asked a diverse group of 2,171 high schoolers an open-ended question: “What ways did you show resilience during this past year?” We coded adolescents’ responses using inductive content analysis, and we found that responses fell into three major categories: (1) personal traits, (2) self-regulation strategies, and (3) activities that adolescents believed demonstrated resilience. Students reported activities and traits at much higher levels than self-regulation strategies, thereby suggesting an opportunity for interventions that bolster self-regulation strategy use. These results also help us consider how resilience is understood by adolescents and how they experience resilience during a global pandemic. We discuss how adolescents’ actual lived experiences compare with existing models of resilience

that have been created by researchers. Fortunately, we see much overlap between how adolescents experience resilience and the ways researchers have been conceptualizing resilience, supporting the ecological validity of existing models.

# **Chapter 1: Conceptualizing Resilience**

The COVID-19 pandemic has brought about significant and unprecedented disruptions to the ways in which we interact with others, take care of ourselves, and engage in daily activities. For adolescents, these disruptions to their social and academic worlds have come during a key developmental stage when those areas of life are particularly critical (Cunha & Heckman, 2010; Yeager, Dahl, & Dweck, 2018). Accordingly, there has been a substantial effort to study the effects of the pandemic on adolescents, both in terms of how adolescents have undergone hardship as well as how they have adapted or even benefited.

The findings regarding adolescent mental health challenges during the pandemic are especially concerning. Assessments of youth mental health during the early stages of the pandemic revealed significantly elevated rates of psychological distress and post-traumatic stress disorder, particularly for those with negative coping styles (Liang et al., 2020; Blendermann et al., 2023). Elevated rates of rebellious behavior, rage control, emotional dysregulation, anxiety, depression, and lack of social competence were present within 8 to 10 days from the initiation of lockdowns (Pizarro-Ruiz & Ordonez-Cambolor, 2021), and consequences of the pandemic are likely to persist for years to come (Irwin et al., 2022).

The elevated rates of adolescent anxiety and depression are shown despite lowered adolescent personal risk of health issues from the virus, as demonstrated through fewer cases of COVID-19 and fewer COVID-related deaths (De France et al., 2022). The significant increase in depression and emotional dysregulation was also associated with adolescent perceptions of negative impact from the pandemic (Blendermann et al., 2023; De France et al., 2022). Overall, adolescents' lives appear to have been disrupted in a way that might be most difficult for them to cope with, given

their general sensitivity to and need for social connections in this developmental stage (Yeager, Dahl, & Dweck, 2018).

## **1.1 Adolescent Resilience**

Although the psychological impact of the pandemic upon adolescents may seem daunting, it is possible that certain theoretical frameworks, such as that of resilience, may help us to better understand how adolescents have adapted to unexpected shifts in their lives. Resilience can be broadly characterized as a dynamic process of positive adaptation, as evidenced by the continued fulfillment of demands, when faced with significant adversity (Luthar et al., 2000; Westphal & Bonanno, 2007).

Higher resilience has been linked to positive broader health outcomes for adults, and posttraumatic growth is associated with positive changes, such as stronger social relationships (Kashdan et al., 2021; Tedeschi & Calhoun, 2004). For instance, during pandemic-related lockdowns, adolescents with higher resilience experienced fewer depressive symptoms (Jiang et al., 2021). Bonanno (2004) affirms that resilience is actually quite common, even after extreme circumstances like 9/11, and that there are multiple, and unexpected, pathways to resilience. Adolescent resilience, therefore, seems like a relevant psychological construct for further study.

Some conceptions of resilience specific to adolescent development rely on social-ecological models of human development, which emphasize the interconnectedness of multi-level systems and their impact on human development (Bronfenbrenner, 1979; Spencer, 1999). Unlike decontextualized models of human development, social-ecological models embed human development within an individual's growing conception of and relationship with their ecological environment (Bronfenbrenner, 1979). These models, such as Spencer's (1999)

Phenomenological Variant of Ecological Systems Theory, centralize adolescents' emerging identities within contextual forces that can confer both risk and support. As adolescents develop, these risks and supports generate reactive coping mechanisms that shape adolescents' identities throughout their lifetime (Spencer et al., 2003).

Certain supports, such as temperament and the presence of supportive adults, have been found to help at-risk adolescents adapt successfully to adulthood (Werner, 1992). Similar supports, such as interpersonal relationships and self-understanding, have been identified in clinical settings for adolescents receiving mental health services (Thompson et al., 2019). In sum, adolescent resilience can be conceived of within a social-ecological systems perspective that interprets those risks and supports as part of a complex, interrelated system operating at the individual, family, and community level that results in the development of long-term changes to one's coping mechanisms and emerging identity (Fritz et al., 2018).

## **1.2 Models of Resilience**

While studies of resilience differ across fields, they all stipulate that resilience requires adversity.

When faced with adversity, an individual can either (1) continue to decline, (2) survive the adversity but suffer some decline or impairment, (3) return to the level of functioning present prior to the adversity, or (4) experience some sort of post-traumatic thriving (Carver, 1998). A similar construct, post-traumatic growth, is distinct in that resilience does not require any particular level of growth or thriving after adversity; rather, resilience is often characterized as the ability to go on with life or to continue to live a purposeful life after hardship (Tedeschi & Calhoun, 2004).

Definitions of resilience are generally aligned to Carver's (1998) third option: returning to some level of functioning that exists prior to facing adversity. Resilience can therefore be defined as a positive adaptation in response to significant adversity or trauma, such that resilience encompasses both adversity and positive adaptation; it is inferred, rather than measured, based on the presence of both adversity and adaptation (Luther, 2015).

The variation in conceptualizations of resilience cannot be overstated. In their integrative review, which focused solely on the fields of psychology and sociology, Shaikh and Kauppi (2010) compared eight different definitions of resilience. Some definitions of resilience focused on human agency, resistance, and survival, while other definitions tended to incorporate personality traits, positive outcomes despite high risk or adversity, positive adaptation factors, adaptive processes, sustained competent functioning, stress resistance, and recovery from trauma (Shaikh & Kauppi, 2010).

These widespread inconsistencies in conceptualizations of resilience heavily influence the ways in which resilience is defined and studied. As a result, researchers have called for a consensus regarding how resilience is defined in order to bring about more substantive progress in this area of research (Fergus & Zimmerman, 2005; Infurna & Jayawickreme, 2019; Kalish et al., 2017; Luthar, Cicchetti & Becker, 2000; Masten & Cicchetti, 2016; Southwick et al., 2014; Troy et al., 2023).

A foundational distinction when studying resilience is whether evidence of resilience is extrapolated from outcomes achieved despite adversity *or* evidence of resilience is defined based on the underlying processes that contribute to positive outcomes. Resilient processes can

additionally be divided into traits, such as altruism, or coping mechanisms, such as self-regulation strategies.

In response to these distinctions, it is plausible that resilience be defined and studied as both the outcome of positive adaptation and the underlying processes of the positive adaptation contributing to those outcomes. The presence of resilient processes may constitute evidence of positive adaptation even if it does not result in resilient outcomes, and the achievement of resilient outcomes may constitute evidence of resilience but not necessarily evidence of the resilient processes that sustain long-term patterns of behaviors aligned with positive adaptation. In order to better elucidate this perspective, theoretical models that stipulate resilience-as-trait, resilience-as-process, and resilience-as-outcome will be discussed; see [Table 1.1](#) for a summary of these models. Lastly, perspectives that incorporate both resilience-as-process and resilience-as-outcome will be addressed.

**Table 1.1** Models of Resilience

<b>Focus of Adaptation</b>	<b>Model</b>
<b>Trait</b>	Metatheory of Resilience and Resiliency ( <i>Richardson, 2002</i> ) Resilience Model ( <i>Richardson et al., 1990</i> ) Related: Ego-resilience ( <i>Block &amp; Block, 1980</i> ), Hardiness ( <i>Kobasa et al., 1982</i> ), Grit ( <i>Duckworth et al., 2007</i> )
<b>Process</b>	Interactive Model of Resilience ( <i>Hermann et al., 2011</i> ) Life-span approach to resilience ( <i>Ong &amp; Leger, 2022</i> )
<b>Outcome</b>	Affect-Regulation Framework for Resilience ( <i>Troy et al., 2023</i> ) Individual Differences in Resilience ( <i>Mancini &amp; Bonanno, 2009</i> ) Integrative Model of Coping & Resilience ( <i>Leipold &amp; Greve, 2006</i> ) Resilience Model ( <i>Werner, 1992</i> ) Two-factor Model of Wellbeing ( <i>Zautra et al., 2010</i> )
<b>Process + Outcome</b>	Multidimensional Taxonomy of Individual Resilience ( <i>Miller-Graff, 2022</i> )

### **1.2.1 Resilience-as-trait**

Certain theories of resilience view positive adaptation as an innate capacity within the individual that can be activated or enhanced. For instance, Richardson's (2002) Metatheory of Resilience and Resiliency defines resilience as a force within every individual that drives them to pursue self-actualization, altruism, wisdom, and harmony. Within this model, the soul has the capacity for resilience, and the ecosystem is the source allowing resilience to be actuated. This view of resilience as innate is part of a broader focus on identifying the motivational forces within individuals that help them to reintegrate following adversity.

Earlier iterations of Richardson and colleagues' (1990) Resilience Model viewed resilience as a set of traits that can enhance one's experience of a stressor, such that stressors become opportunities for growth and development of resilience-enhancing processes. When faced with a stressor, individuals may experience the activation of biopsychospiritual protective factors, such as self-esteem or self-mastery. These protective factors, upon interacting with the stressors, result in some measure of reintegration for the individual along a continuum from resilient reintegration to dysfunctional reintegration. Just as biopsychospiritual protective processes can increase the likelihood of resilient reintegration, so can envirosocial processes. This model focuses on resilient traits that enhance these protective processes as points of intervention for health educators and clinicians.

Although Richardson and colleagues' (1990) model of resilience conceptualizes resilience as a trait, research has also revealed that several personality traits are related to resilience, and some traits have much conceptual overlap with resilience. Ego-resiliency, for instance, describes how well an individual can adapt to change and recover from stressful situations while maintaining their identity – it represents adaptive self-control as a response to contextual circumstances



(Block & Block, 1980). Ego-resiliency is therefore a personality trait that individuals either possess, do not possess, or possess to varying degrees – it is an individual-level trait rather than a process or an outcome.

Similarly, the trait of hardiness is a constellation of the dispositions of commitment, control, and challenge (Kobasa et al., 1982). More specifically, hardiness is composed of tendencies to involve oneself in activities, to feel and act influential in response to unexpected events, and to view changes as opportunities for growth. These dispositions are believed to contribute to stress-resistance and resilient outcomes through the trait of hardiness. More recent research on the idea of grit or grittiness echoes the ideas in hardiness research finds a similar association between how gritty a person is and how well they do in difficult circumstances (Duckworth et al., 2007).

### **1.2.2 Resilience-as-process**

Other theories of resilience focus less on resilient traits and more on the processes involved. For instance, Herrman and colleagues (2011) define resilience as "an interactive concept, referring to a relative resistance to environmental risk experiences, or the overcoming of stress or adversity" (p. 262). In their Interactive Model of Resilience, they clarify that resilience is a dynamic process in which stressors, such as a natural disaster, and resiliency factors, such as a social support system, interact; this interaction can include personal, genetic, and environmental factors as potential sources of resilience. During this interaction, an individual may experience a lack of resilience, as seen through disruptive or dysfunctional processes, or resilience, as seen through processes involving homeostasis of stress and resiliency factors, or post-traumatic growth or thriving. Given this focus on the process of resilient functioning, resilience can be identified through a number of indicators, such as self-reported resilience, the absence of deficits in functioning, and competence across multiple life domains.

Ong and Leger (2022) echo this view by characterizing resilience as an active and dynamic adaptation in response to environmental adversity. Their key assertion is that resilience must be studied as a set of dynamic daily processes due to the “temporal unfolding nature of resilience” (Ong & Leger, 2022, p. 2). They identify four dynamic processes supporting resilience to everyday stress: dampened affective reactivity, accelerated affective recovery, adaptive inoculation to subsequent stressors, and high stressor diversity. These daily processes are believed to contribute to broader patterns of adaptation across the life-span that influence how resilient individuals respond to major life adversities, and are often operationalized within process-oriented designs that utilize experience sampling and daily diary assessments (Ong & Leger, 2022).

### **1.2.3 Resilience-as-outcome**

Most theories of resilience, however, focus on resilient outcomes in specific life domains as their definition of resilience. However, it is critical to note that most outcome models are also highly interested in the processes that produce resilience. The difference between process and outcome models is that process models define resilience as the process itself, regardless of the outcomes.

Werner (1992), in her seminal longitudinal study of children in Kauai, defined resilience by the absence of maladaptive outcomes, such as learning or behavior problems, and by the presence of outcomes reflecting the successful managing of childhood and adolescent developmental tasks.

Werner identified five clusters of protective factors present in the lives of resilient, high-risk children: temperamental characteristics, beliefs about ability, caregiver characteristics, surrogate caregivers, and the presence of opportunities during major life transitions. In Werner’s characterization, resilient outcomes can be better understood through exploration of this “chain of protective factors, linked across time, [which] afforded vulnerable children and teenagers an

escape from adversity, and contributed to positive outcomes in their lives” (Werner, 1992, p. 264).

Similarly, Zautra and colleagues (2010) define resilience as the outcomes of an individual’s successful adaptation to stressful life events. Resilience is, therefore, the result of these cognitive, affective, and behavioral adaptive responses to adversity, and can be demonstrated through medical, psychological, and behavioral indicators. In their Two-factor of Model of Wellbeing, they define a range of resilient resources, such as a sense of purpose or social engagement, that increase the probability of experiencing resilient outcomes. These resilient outcomes focus on three key components that mirror those of Ong and Leger (2022): the quick and efficient recovery following adversity, sustaining values and goals despite dynamic stress, and post-traumatic growth.

In their Integrative Model of Coping and Resilience, Leipold and Greve (2006) conceive of a resilience as the outcome of a coping episode: “the phenomena of a ‘normal’ (or stable, or successful) development course under potentially endangering circumstances” (Leipold & Greve, 2006, p. 44). Individuals who are resilient will either have stable development or an increased chance of further development in response to a coping episode, as demonstrated by a lack of outcome deficits, while individuals who are not resilient have a reduced chance of further development in response to a coping episode and exhibit serious deficits, such as lowered subjective well-being. In their model, they focus on identifying the variety of regulatory processes, such as accommodative, assimilative, and defensive, during the coping episode that impact one’s developmental trajectory. Resilience is therefore as a complex constellation of processes that stabilize the relationship between coping, meaning the “short-term state changes in reaction to challenging constellations that cannot be resolved with the available means and

resources,” and development, meaning the “longer term changes in the person in reaction to challenges that cannot be dealt with by the previously developed cognitive, emotional, and behavioral repertoire” (Leipold & Greve, 2006, p. 43).

Troy and colleagues (2023) also define resilience in terms of the psychological health outcomes that are produced during an individual’s adaptation to adversity in their Affect-Regulation Framework for Resilience. In response to adversity, an individual may engage various coping and emotion regulation strategies to alter their affect, which “allows people to agentically change how they respond to adversity and the trajectory they are on, either away from or toward resilience” (Troy et al., 2023, p. 559). These resilient outcomes are categorized along lines of ill-being and well-being, and are the result of affect-regulation strategies that mitigate the short-term consequences of adverse events that have the potential to disrupt functioning. For example, individuals who engage in positive reappraisal or benefit-finding after a tragic event may experience diminished psychological ill-being, such as depressive symptoms, and therefore be considered more resilient, than those who do not (Troy et al., 2023).

Mancini and Bonanno (2009) are explicit in their positioning of resilience “as an outcome following a highly stressful event” reflecting one’s “level of adjustment after the stressor event.” In their Individual Differences model, they clarify that studies of resilience must first confirm a resilient outcome, such as minimal symptoms after the loss of a loved one, then “document the factors that appear to promote or detract from that outcome” (Mancini & Bonanno, 2009). Yet, despite their focus on outcomes, Mancini and Bonanno (2009) do acknowledge the many mechanisms that help one achieve resilience, and they include direct and indirect effects of risk and protective factors in their model, such as individual appraisal processes and social support.

However, these factors are not evidence of resilience, but simply common mechanisms that reflect adaptive characteristics that can support a resilient outcome.

#### **1.2.4 Resilience-as-outcome and Resilience-as-process**

In response to these criticisms of process-only and outcome-only models of resilience, certain models of resilience both acknowledge the resilience-as-outcome and resilience-as-process dichotomy and choose to incorporate both definitions into their theoretical models. For example, Miller-Graff (2022) distinguishes between resilience as resilient outcomes and resilient processes in her Multidimensional Taxonomy of Individual Resilience. These resilient outcomes include developmental competence and psychological health, and resilient processes involve the navigation, negotiation, and recovery of resources to facilitate positive adaptation. Miller-Graff is careful to clarify that resilient processes do not have to culminate in resilient outcomes in order for an individual to be resilient, and elevates constraints external to the individual, such as structural inequity, as reasons why resilient processes may not result in resilient outcomes. This nuanced approach to resilience as both a process and outcome that are interrelated but not necessarily contingent upon one another is especially salient given the research questions addressed in our study.

## **Chapter 2: Current Study**

The current study poses the following research questions: How do adolescents describe their own resilience during the pandemic? In what ways do adolescent conceptualizations of resilience align with existing theoretical models of resilience? This second research question is one way of assessing the ecological validity of existing resilience models because it allows us to compare how the ways adolescents actually experience resilience compare to models of resilience developed by researchers.

As previously acknowledged, resilience is an everyday phenomenon for most individuals (Bonanno, 2004). Yet the pandemic constituted a period during which individuals were faced with extraordinary adversity, which also requires unique positive adaptation. These adaptations provide an opportunity to discern the aspects of resilience that are most salient to adolescents during a particularly challenging time. More specifically, adolescents had to adapt to many widespread changes that impacted their social connections and development (Cingel et al., 2022; Scott et al., 2021;). Therefore, it is critically important to understand the adolescent experience during the pandemic through the lens of resilience. By using a qualitative approach with a large and diverse sample of adolescents, this study prioritizes ecological validity and centers participant voice. It may also surface potential targets for intervention.

Although most theoretical models of resilience focus either on resilient outcomes or resilient processes, it is unclear whether this distinction is present in adolescent conceptualizations of resilience, based on adolescents' lived experiences as compared to researcher-derived models of resilience. It may be that adolescents view resilience through the outcomes they experienced, the

protective processes that they engaged in, or a combination of the two. Therefore, findings from this study will help to inform future directions and advances in theoretical models of resilience.

## 2.1 Participants

The sample consisted of 2,171 Chicago-area public high school students (grades 9-12); see [Table 1.2](#) for further details.

**Table 1.2** Demographic Characteristics

Demographic Factor	Percentage
<b>Race / Ethnicity</b>	
White	50.8%
Black	17.6%
Latino	16.5%
Asian	6.3%
Two or More Races	3.6%
No data on demographics	4.9%
<b>Gender</b>	
Female	49.8%
Male	45.3%
No data on demographics	4.9%
<b>Socioeconomic Status</b>	
Qualifies for free or reduced lunch	25%
Does not qualify for free or reduced lunch	70.1%
No data on demographics	4.9%

## 2.2 Procedure

This online survey was conducted during April 2021 (spring of the 2020-2021 school year) at a public high school as part of the school’s social-emotional learning curriculum. Researchers were granted access to school survey data through a data-sharing agreement. Parents were sent an email with instructions for opting their child out of the data-sharing process, as well as information about the survey’s topics, and adolescents could also opt-out of sharing their

responses with researchers. A centralized institutional review board protocol at the University of Denver approved all procedures.

## 2.3 Data Analysis

### 2.3.1 Content Analysis

We compiled open-ended responses to the following question: “What ways have you shown resilience during the pandemic?” Participants wrote an average of 12.66 words in their responses ( $SD = 11.52$ ,  $min = 1$ ,  $max = 101$ ). The lead coder used inductive content analysis (Elo & Kyngäs, 2008). To familiarize herself with the data, the lead coder first read through all responses. Next, the lead coder conducted open coding, which consisted of short descriptions of all aspects of each response.

After each 250 responses, the lead coder engaged in free generation of coding categories until 1,000 responses were coded. At this point, a group of higher- and lower-order coding categories emerged from the data, based on similar clusters and types of student responses. The final higher-order dimensions were as follows: *action* responses that described a general and repeated activity (often without a stated rationale or high level of detail), *strategy* responses that described a more specific and repeated tactic (often with a stated rationale and high level of detail), or *trait* responses that describe an aspect of their personality or trait that they felt they embodied. Thirty-two lower-order codes made up these three dimensions. See [Table 1.3](#) for specific definitions of each dimension and [Table 1.4](#) for specific definitions of each subcategory.



**Table 1.3** Coding Scheme of Higher-order Dimensions

<b>Dimension</b>	<b>Definition</b>	<b>Example</b>
Actions	General, concrete, and repeated activities that adolescents engaged in	“Meditating”, “Doing my work on time”, “Eating healthy food”
Strategies	Specific, concrete, and repeated approaches that adolescents engaged in	“Emailing my teachers when I need their help”, “Calm myself down when I was super stressed”, “I worked on personal goals step by step”
Traits	Abstract personality descriptors that adolescents embodied	“Rising to a challenge”, “Bouncing back”, “Believing in myself”

**Table 1.4** Coding Scheme and Inter-rater Agreement

<b>Dimension</b>	<b>Code</b>	<b>Definition</b>	<b>Example</b>	<b>Kappa</b>
Actions	Academic	Response refers to academics or schooling	“Kept up with my classes”, “Doing my work on time”	0.95
Actions	Extracurriculars	Response refers to extracurricular activities	“Coloring”, “Cooking”	0.40
Actions	Physical health	Response refers to engaging in physical activity or eating healthy food	“Eating healthy food”, “Working out”	0.89
Actions	Mental health	Response refers to actions related to mental health or self-care	“Meditating”, “Going to residential”	0.79
Actions	Religious	Response refers to religious activities	“I definitely prayed a lot”	0.95
Actions	Social relationships	Response refers to connections with family, friends, or others	“Talked to people”, “Talked to my parents about how I felt during the year”	0.92
Actions	Ending relationships	Response refers to cutting off connections with family, friends, or others	“I got rid of toxic people in my life even though it was hard”	0.82
Strategies	Goal-Setting	Response refers to setting or working	“I worked on personal goals step by	0.81

Strategies	Orienting to the future	towards long-term or short-term goals Response refers to projecting towards a future state	step”, “Writing to do lists” “Telling myself that the situation would eventually be over”	0.66
Strategies	Engaging in purposeful distractions	Response refers to engaging in distracting activities as a coping strategy	“I found new hobbies to do”, “Focusing on something else”	0.73
Strategies	Following work-rest intervals	Response refers to implementing breaks when working	“Giving myself 20-30 minute breaks from assignments”	0.78
Strategies	Managing time well	Response refers to time management or prioritization of activities	“Maintained a schedule for school”	0.64
Strategies	Help-seeking	Response refers to seeking help or advocating for oneself	“Emailing my teachers when I need their help”	0.79
Strategies	Regulating emotions	Response refers to purposefully regulation emotions	“I calm myself down in situations”, “Taking the time to calm myself down when I was super stressed”	0.57
Strategies	Suppressing emotions	Response refers to suppressing or hiding emotions from others	“I just shoved it inside until it passed”	0.70
Strategies	Venting in a safe space	Response refers to sharing emotions in a safe space	“Talking to my parents about how I felt”, “Journaling”	0.80
Strategies	Maintaining physical safety	Response refers to ensuring safety in relation to COVID	“being COVID safe”	0.84
Traits	Effortfulness and Conscientiousness	Response refers to putting forth extra effort, working hard, or exerting strength	“Doing work on time and being diligent about it”, “Pushing myself harder and harder”, “Grinding out my work”	0.70
Traits	Endurance	Response refers to refusing to give up	“Survived”, “Not giving up”, “Moving forward”	0.70
Traits	Adaptability and Acceptance	Response refers to accepting or adjusting	“Found ways to keep myself happy”,	0.67

		to circumstances or emotions	“Changing my mindset”, “Learning to let go”	
Traits	Perseverance	Response refers to triumphing over a challenge	“Bouncing back”, “I worked through the lack of motivation”, “Rising to a challenge”	0.68
Traits	Authenticity and Self-confidence	Response refers to authentic displays of identity, or belief or confidence in oneself	“Being me”, “Believing in myself”	0.73
Traits	Mindfulness and Positivity	Response refers to reflecting or appreciating something, or expressing positivity despite circumstances	“Making the most out of every day”, “Stepped back from the issues and appreciated all that I am already doing”	0.83
Uncategorized	Disagrees with reasoning	Response states a lack of resilience in addition to some rationale for this statement	“None I literally went to the mental hospital”	0.70
Uncategorized	Disagrees without reasoning	Response states a lack of resilience without any rationale	“I didn’t”	0.81
Uncategorized	Does not know	Response demonstrates uncertainty about whether they showed resilience or not	“IDK”, “I don’t know”	0.96
Uncategorized	Agrees without reasoning	Response states that they showed resilience but further details were not interpretable	“A lot of ways”, “By having random bursts of energy”	0.44

The research team then coded each participant response first by dimension (e.g. action, strategy, trait, or uncategorized), then by code (e.g. academics within the action dimension). Each participant response was coded in at least one dimension, but only one dimension (‘uncategorized’) was mutually exclusive (since this dimension contained responses with

insufficient information to allow further categorization). Since participant responses were coded for presence (1) or absence (0) of a particular code, responses could have more than a single code or dimension.

All three coders then independently coded the first 1,000 responses, and collaboratively updated the codebook to ensure that each code and category had a clear and thorough formal description. As a result, the codebook was reduced to 27 codes across four dimensions; 4 codes were assigned to the ‘uncategorized’ dimension, leaving 23 codes in the remaining dimensions of actions, strategies, and traits.

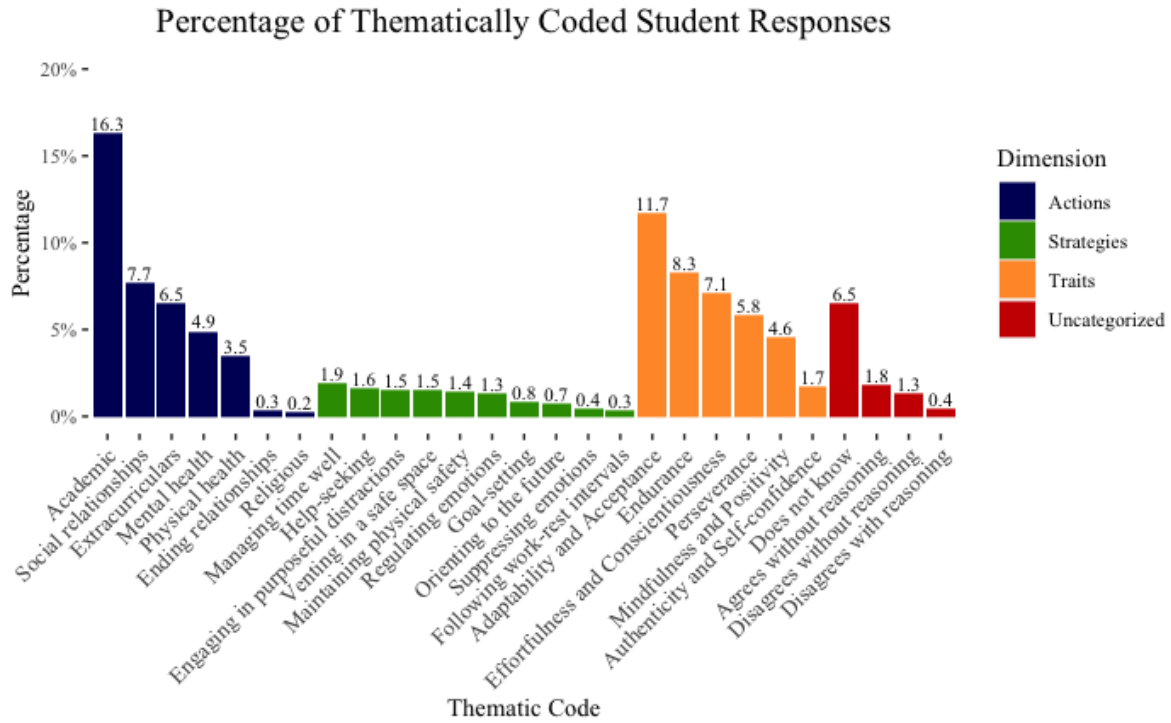
### **2.3.2 Inductive Coding**

The first three authors (coders) then coded the entire data set while blinded to all participant information (race/ethnicity, gender, age, etc.). Participant responses were first assigned to a dimension, then assigned to a code within that dimension. Disagreements for the axial-coding stage were then reconciled between the three coders. Inter-rater reliability showed substantial agreement,  $k = .96-.40$ ; see [Table 1.4](#) for details regarding the coding scheme.

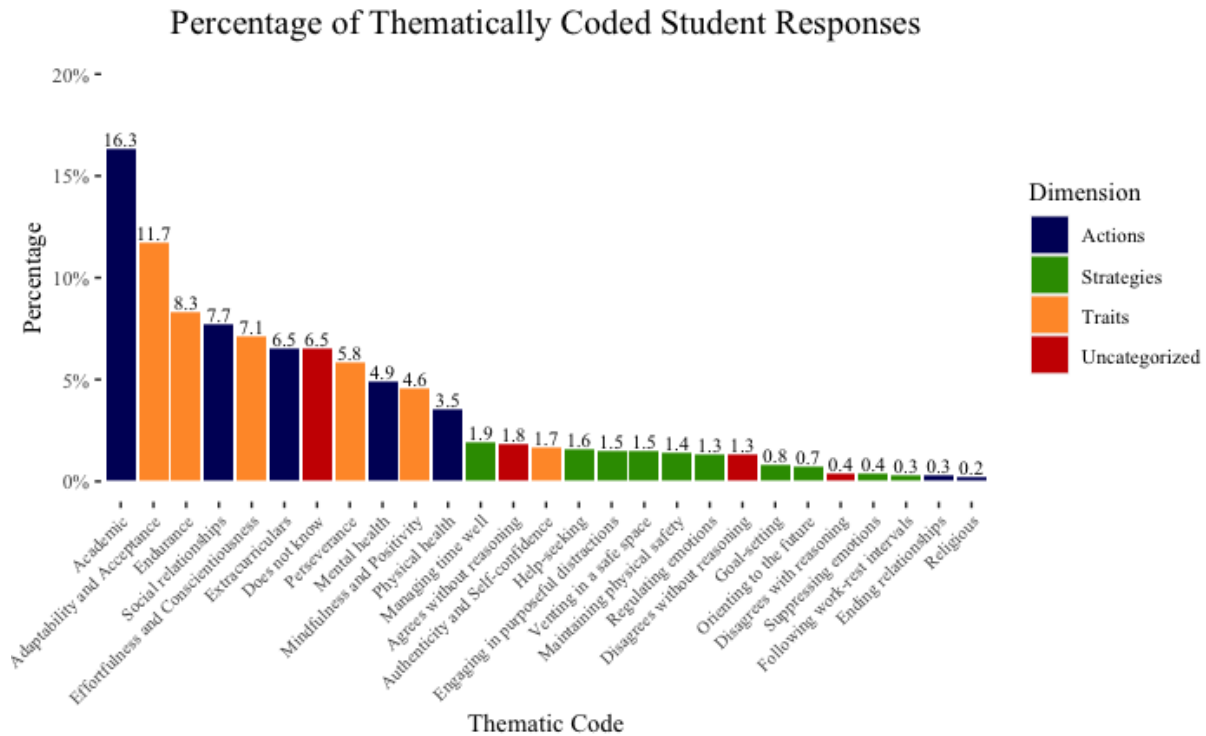
## **2.2 Results**

In response to the open-ended question “What ways have you shown resilience during the pandemic”,  $N = 2,171$  participants wrote  $N = 3,786$  thematic units ( $M = 1.74$  units per participant,  $SD = 1.05$ ,  $min = 1$ ,  $max = 8$ ). See [Figure 1.1](#) for percentage of participant responses by code (grouped by dimension) and [Figure 1.2](#) for percentage of participant responses by code (not grouped by dimension). A portion of responses (10%) were coded only in dimension one (labelled as ‘uncategorized’; see [Figure 1.3](#)), which included responses of “I don’t know” or its equivalent, disagreement with or without reasoning (e.g. “I didn’t show resilience”), and agreement without reasoning (e.g. “I was resilient” with no further information).

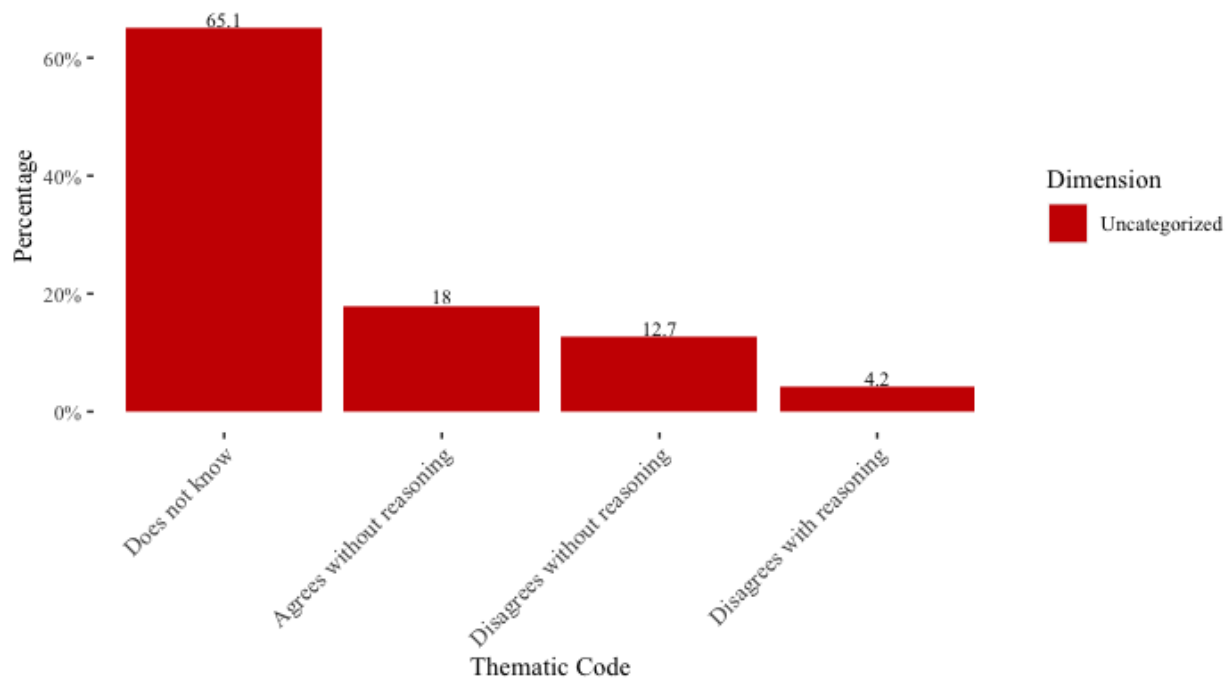
**Figure 1.1** Percentage of Participants by Code, Grouped by Dimension



**Figure 1.2** Percentage of Participants by Code, Ungrouped



**Figure 1.3** Percentage of Participants by Code, Grouped in Uncategorized Dimension

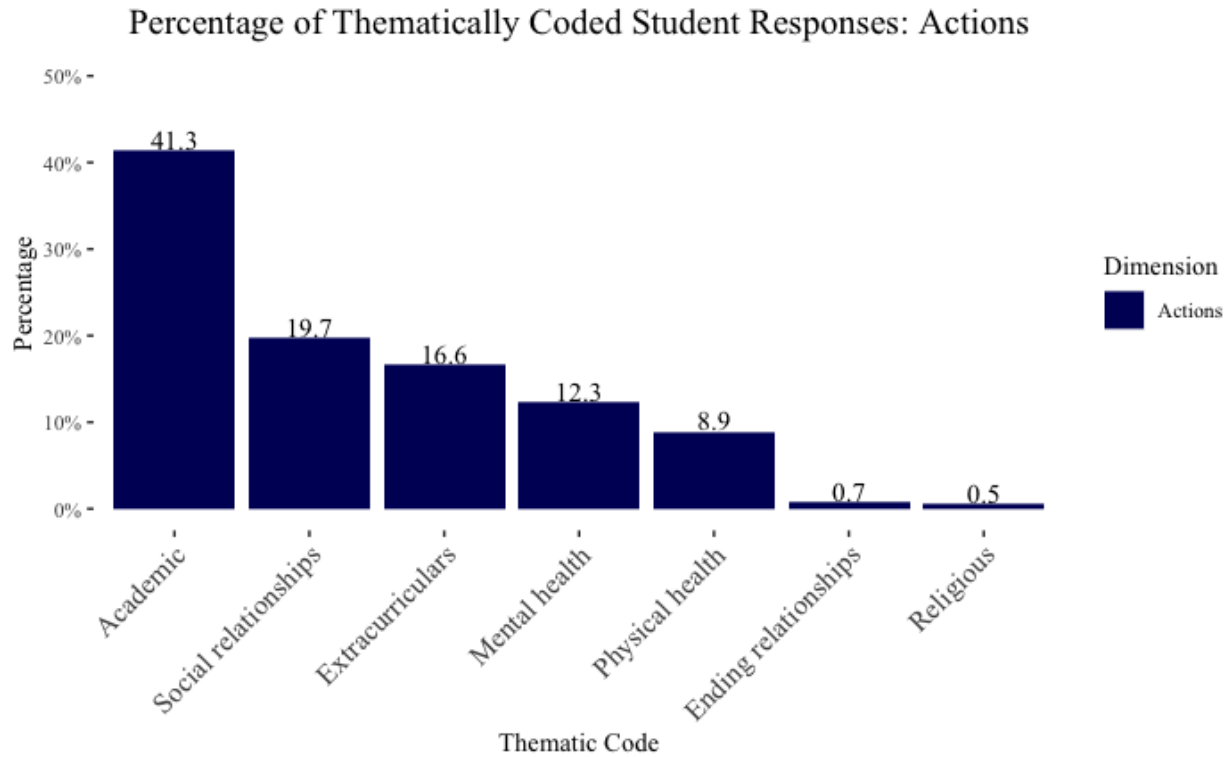


### **2.2.1 Resilient Actions**

Any general actions taken by participants were coded in this dimension. This dimension was utilized with the highest frequency (39.4%) by the coding team. The following numbers will refer to the percentage of responses just within the resilient actions coding category. Students most frequently referred to actions related to academics (41.3%), such as “I continued to work hard in school and clubs” (participant 31193) or “If I do bad on an assignment, I try to fix it and try to get a better grade” (participant 31100). Students also referred to social relationships (19.7%), such as “I’ve been able to develop some coping methods thanks to some friends helping and I’ve been doing a bit better” (participant 31110), and extracurricular activities (16.6%), such as “pushing myself to do little task that could help me in any way improve my life like cleaning

my room, or doing a favorite hobby” (participant 31495). See [Figure 1.4](#) for percentages by code.

**Figure 1.4** Percentage of Participants by Code, Grouped in Action Dimension

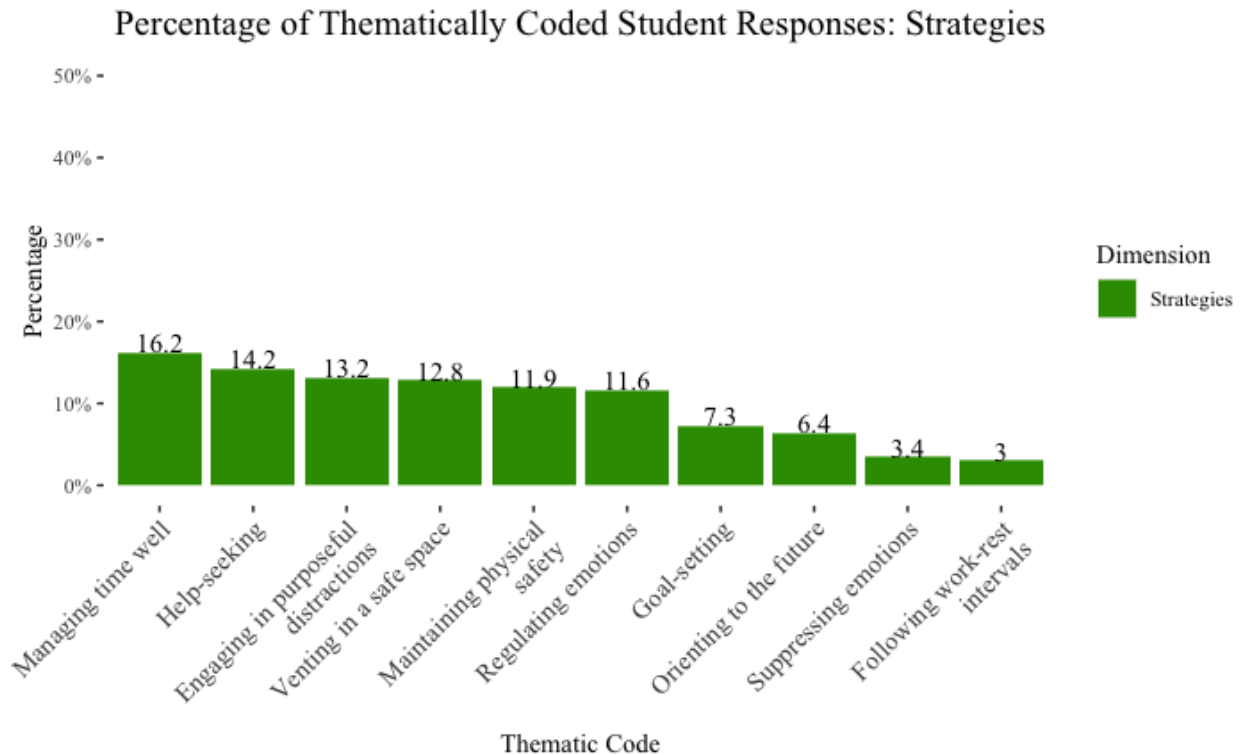


### 2.2.2 Resilient Strategies

Any specific strategies that participants explicitly mentioned were coded in this dimension. This dimension was utilized with the lowest frequency (11.6%) by the coding team. The following numbers will refer to the percentage of responses just within the resilient strategies coding category. Students most frequently referred to strategies regarding help-seeking / advocating for oneself (14.2%), such as “I was reaching out for help and actually using the help/advice” (participant 31123) and “I sought mental help through the school to talk about the emotions I've been experiencing” (participant 31302). Students also referred to strategies regarding regulating

their emotions (11.6%), such as “taking the time to calm myself down and get my work done when I was super stressed” (participant 31220). See [Figure 1.5](#) for percentages by code.

**Figure 1.5** Percentage of Participants by Code, Grouped in Strategies Dimension



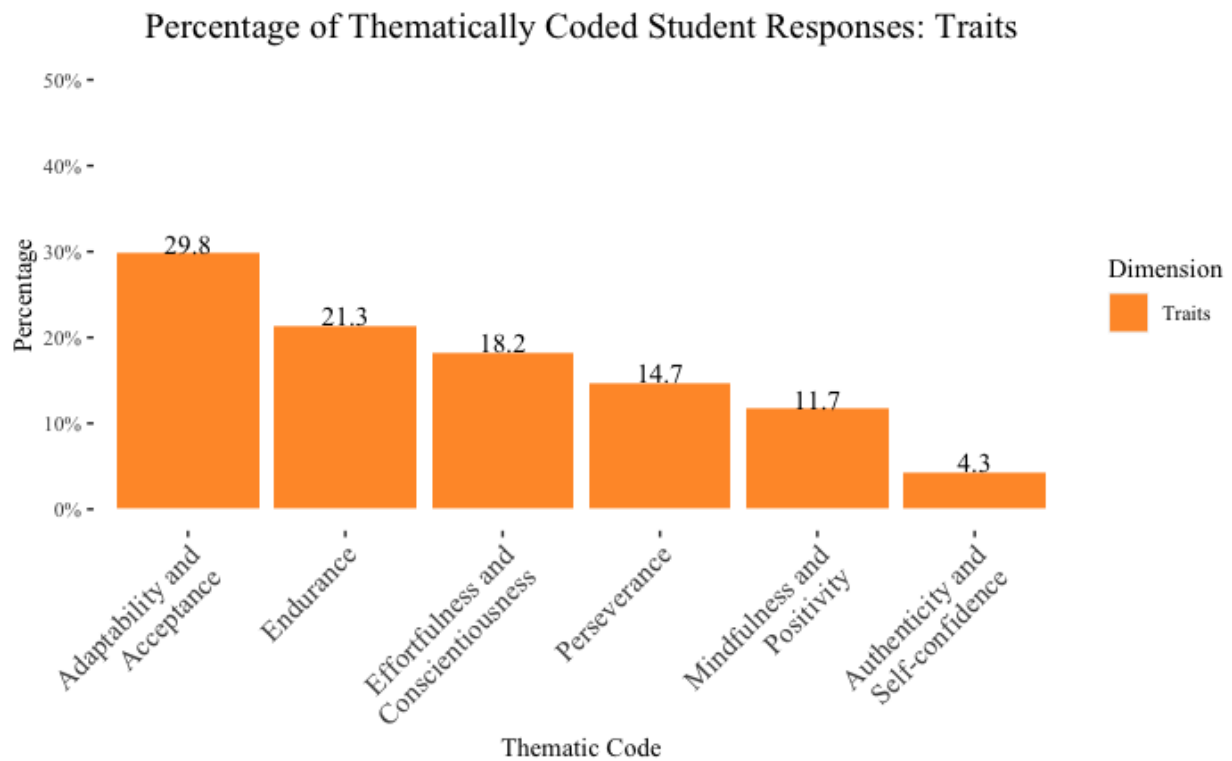
### 2.2.3 Resilient Traits

Individual traits that participants either explicitly mentioned or implicitly signaled through specific wording were coded in this dimension. This dimension was utilized with nearly the same frequency (39.1%) as the actions dimension by the coding team. The following numbers will refer to the percentage of responses just within the resilient traits coding category. Students most frequently referred to the traits of adaptability, such as “by changing my mindset and moving forward” (participant 31166), and acceptance, such as “learning to let go,” (participant 31776)



(29.8%). Students also referred to endurance with a high level of frequency (21.3%), such as “I showed resilience because even with facing challenges I never gave up and always worked towards my goals” (participant 32704). See [Figure 1.6](#) for percentages by code.

**Figure 1.6** Percentage of Participants by Code, Grouped in Traits Dimension





# **Chapter 3: Discussion**

## **3.1 Findings**

This study identified the ways in which adolescents conceptualized their resilience during the pandemic using a qualitative, inductive approach. A large and diverse sample of 2,171 adolescents reflected on their resilience over the first year of the COVID-19 pandemic, and we coded their responses to understand in what ways adolescents perceived themselves as being resilient during this time. Building our codes out of what adolescents reported rather than doing top-down coding based on theory allowed us to understand how adolescents themselves organized resilience.

We found that responses fell into three larger categories: resilient actions, resilient strategies, and resilient traits. Adolescents most often described resilience in terms of the actions they enacted in order to continue to meet the demands placed upon them, which aligns with resilience-as-process theoretical models, and in terms of the internal and stable traits they embodied despite adversity, which aligns with resilience-as-trait theoretical models. Adolescents also described the more specific strategies that they enacted in order to achieve certain outcomes, which was captured in the strategy dimension and aligned with resilience-as-process models. Below, we review those results in more detail and discuss implications of these findings.

### **3.1.1 Resilient Actions**

Adolescent responses were most frequently coded as actions. Actions were defined as general and often repeated actions which they believe demonstrate resilience. These actions, in order of prevalence, included academics, social relationships, extracurriculars, mental health, physical

health, religious actions, and ending relationships.

Academic actions, as the most prevalent category, represent references to keeping up with the academic demands placed upon them despite pandemic-related disruptions. In many ways, it is as though adolescents were attempting to impose structures on themselves that mirrored those of high school during a time when they were not physically able to be in high school and the structures that normally facilitate academic success were weakened due to the pandemic. Brody and colleagues (1996) confirm the value of these classroom structures: positive, organized, and predictable classroom environments contribute protective-stabilizing effects that are significant and independent from those of the parent-child relationship.

Additionally, other aspects of school, such as social relationships and extracurricular activities, were also critical to the narratives of resilience in our sample. Seidman and Pederson (2003) confirm that adolescents in urban environments with lower levels of sociality are at higher risk for delinquency, and Mahoney (2000) confirms that extracurricular involvement reduces likelihood of criminal arrest and early dropout. Allen and colleagues (2021) discuss how a sense of belonging is critical to success inside and outside of school. Our findings emphasize the importance of non-academic aspects of school for adolescents, as well as the creative ways in which they went about implementing these actions despite the limitations present.

### **3.1.2 Resilient Strategies**

Strategies, while least frequently mentioned, were distinguished from actions because they were more specific and less abstract than the more general and repetitive actions. Strategies involved lower-level processes that supported more abstract and general actions. Strategies, in order of prevalence, included managing time well, seeking help, purposefully distracting oneself, venting in a safe space, maintaining physical safety, regulating one's emotions, setting goals, orienting to

the future, suppressing their emotions, and following work-rest intervals.

One big subtheme in our results was that students mentioned self-regulation or emotion regulation strategies as ways they were resilient during the pandemic. For example, they mentioned self-regulatory practices, such as goal-setting, managing their time well, and seeking help. Adolescents also mentioned various ways managing their emotions, such as reorienting their attention, planning to put themselves in situations that led to higher well-being, and talking about their feelings with close others.

These findings align with the broader literature on self-regulation and coping. Buckner and colleagues (2003) confirm that higher levels of self-regulation correlate with higher levels of resilience for adolescents with low SES. In their longitudinal study of emerging adults, Taylor and colleagues (2022) compared rates of self-reported emotional regulation strategy utilization by emerging adults between college semesters before and during the pandemic and found lower rates of adaptive emotional regulation, such as planning and positive reappraisal, during the pandemic. Maladaptive emotional regulation strategies, such as catastrophizing and blaming others, also increased during the pandemic. These findings highlight the importance of emotional regulation for adolescents, especially during the pandemic.

### **3.1.3 Resilient Traits**

Traits, which were mentioned much more than strategies and almost as frequently as actions, were defined as aspects of personality or otherwise stable qualities that students viewed as internal to themselves. Traits, in order of prevalence, included adapting to and accepting current circumstances, enduring adversity, channeling effort and conscientiousness, persevering through adversity, engaging in mindful and positive ways, and channeling authenticity and self-confidence.

Many of the identified traits aligned with those identified in other empirical research. For instance, the trait of mindfulness / positivity is reminiscent of Affleck and colleagues' (1991) benefit-finding, or seeing the silver-lining in traumatic events. Bonanno (2004) notes the use of benefit-finding by those who had recently lost a loved one, and confirms that individuals who expressed authentic joy (such as genuinely smiling or laughing when speaking about their loved one) were rated as having adjusted better during their bereavement. Similarly, Ang and colleagues (2022) found that the trait of gratitude enhanced the protective role of self-efficacy in decreasing levels of loneliness amongst first-year college students. In the current study, many participants made reference to engaging in benefit-finding as part of their overall positivity or mindfulness.

One of the more interesting ways that adolescents discussed being resilient in our study was by being their authentic selves and acting in accord with one's values. This finding aligns with other research, such as Harter (2002) which finds that adolescents with higher levels of authenticity also report higher levels of self-esteem, more positive affect, and higher levels of hope. In Bonanno's (2004) study of bereaved adults, those who self-enhanced, or projected overly positive views of themselves, showed higher levels of adjustment after losing their loved one. It may be that positivity and authenticity are part of a set of personal attributes that correlate with resilience and are linked to more positive outcomes, and which are deserving of further study (Luthar, 2015; Schmader & Sedikides, 2018).

## **3.2 Theoretical Implications**

### **3.2.1 Resilience-as-process**

The findings of this study demonstrate many commonalities with theoretical models that incorporate the resilience-as-process perspective. More specifically, student responses that

referred to either actions or strategies had the greatest alignment with conceptions of resilience as a dynamic process of positive, adaptive coping responses to stressors. Although resilience as a process is part of existing theoretical models, one new direction uncovered by our bottom-up coding was a distinction between two types of resilient processes: that is, the distinction between actions and strategies. While action responses describe more general and repeated activities, and strategy responses elucidate more specific repeated tactics, both domains align with resilience-as-process models. Future research may test how this action/strategy distinction in resilient processes may predict resilient outcomes differentially or similarly as well as examine how malleable each of these categories are to intervention.

### **3.2.2 Resilience-as-trait**

The findings of this study also demonstrate alignment with theoretical models that incorporate the resilience-as-trait perspective. These responses, categorized within the trait dimension, referred to aspects of one's personality or otherwise internal qualities that adolescents believed they demonstrated as evidence of resilience.

Traits mentioned by participants often focused on enhancing the efficacy of pre-existing protective attributes. For instance, adolescents often mentioned channeling the traits of self-confidence, effortfulness, and conscientiousness. These traits would be deemed 'biopsychospiritual' protective processes by Richardson (1990), meaning they encompass biological, psychological, and spiritual factors that enhance one's coping ability. Resilience can therefore be enhanced through activation of these traits, such that individuals garnered additional protective coping skills as a result of coping with their present adversity.

### **3.2.3 Other Approaches to Resilience Research**

Although we examined adolescent resilience with a large-scale qualitative study, there are other

ways to address our research question that would be useful to do in future research. For example, studying fewer adolescents but in greater depth with interviews is one such way. Velez and Herteen (2023) utilized a narrative approach when studying how 18 adolescents engaged in subjective, meaning-making processes as a form of resilience. Adolescents described their coping processes aligned to four themes impacting their identity development: “personal growth and maturation in response to the pandemic’s challenges; new skills, learning strategies, and activities emerging from disrupted schooling; recreating a sense of social identity and networks; and feeling deeper appreciation for family” (Velez & Herteen, 2023, p. 8).

More broadly, scholars have elevated the need for resilience research to incorporate cultural and contextually embedded conceptions of resilience (Ungar, 2006; Ungar, 2012), to acknowledge the systems surrounding resilient individuals (Southwick et al., 2014), and to further probe the ways in which protective processes and interventions interface (Luthar, Cicchetti & Becker, 2000). Future studies would do well to incorporate adolescents’ ideas about how the systems around them imbue resilience along with the individual factors and more local social context that was the focus of our study.

### **3.3 Future Directions**

The aim of this study was to learn more about how adolescents defined their resilience during the pandemic, and the findings generated provide many opportunities to extend this work in the future. Responding to prior calls that identified the potential for deep dissension between the ways in which practitioners and researchers define resilience and the ways in which adolescents define resilience (Theron, 2020), our qualitative approach has allowed us to focus on adolescents’ lived experience to understand what those experiences are directly and to compare adolescents’ own descriptions of resilience to existing models of resilience as defined by



researchers.

One key implication that flows from our findings relates to potential targets for intervention to improve adolescent resilience. We found that although adolescents frequently referenced resilient traits and more general actions, adolescents reported resilient strategies least frequently. Limited strategy use reveals an opportunity for interventions that focus on teaching adolescents certain resilient strategies, such as how to manage their emotions (e.g., Schleider et al., 2022; Smith et al., 2018; Rozek et al., 2019; Yeager et al., 2022). Our research suggests these types of strategy interventions may be especially needed and beneficial.

Additionally, it may be useful for future studies to assess and describe types of resilient strategies currently being developed in K-12 classrooms to understand what is currently being done and how that matches or does not match what adolescents are reporting needing. These strategies are especially critical given that they represent the coping processes underlying adolescents' adaptations to adversity. Practitioners should consider enacting strategies that address coping with academic challenges, developing healthy relationships, managing mental and physical health, and balancing commitments outside of school. In turn, researchers should prioritize studying the barriers and facilitators impacting adolescents' use of particular strategies, as well as the rate of utilization and impact of those strategies on resilient outcomes.

Another future direction would involve following adolescents longitudinally to understand how they are resilient and develop resilience over time, especially after large changes such as pandemics. To add to existing studies of resilience over time (e.g., Chmitorz et al., 2021; Masten et al., 1999; Werner, 1992), large-scale qualitative studies could assess changes in the ways adolescents are resilient in more fine-grained ways that quantitative studies and with larger and more representative samples than small, in-depth interview studies. Such a study could also

assess if the structure of resilience, as understood in adolescents' own words, stays the same or changes for adolescents over time.

### **3.4 Conclusion**

This study confirms that adolescents do conceptualize resilience in ways that align with current theoretical models, including understanding resilience as a trait and as a process. Identification of the ways in which adolescents believe they have demonstrated resilience during the pandemic has provided greater insight into the adolescent experience and the validity of our current models of resilience, thereby yielding insights for how researchers should define and study resilience. Furthermore, we noted two distinct categories that adolescents made between types of resilient processes that were not a focus of previous research: resilient actions and resilient strategies. Researchers and practitioners should consider the ways in which these findings complicate our understanding of adolescent resilience and the design of social-emotional supports for adolescents within classrooms.

## References

Affleck, G., Tennen, H., & Rowe, J. (1991). *Infants in crises: How parents cope with newborn intensive care and its aftermath*. Springer-Verlag.

<https://psycnet.apa.org/doi/10.1007/978-1-4612-3050-2>

Allen, K. A., Kern, M. L., Rozek, C. S., McInerney, D., & Slavich, G. M. (2021). Belonging: A review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology*, *73*(1), 87–102.

<https://doi.org/10.1080/00049530.2021.1883409>

Ang, J., Monte, V. & Tsai, W. (2022) First-year college students' adjustment during the COVID-19 pandemic: The protective roles of hope and gratitude. *Translational Issues in Psychological Science*, *8*(3), 375-388. <https://doi.org/10.1037/tps0000320>

Blendermann, M., Ebalu, T. I., Obisie-Orlu, I. C., Fried, E. I., & Hallion, L. S. (2023). A narrative systematic review of changes in mental health systems from before to during the COVID-19 pandemic. *Psychological Medicine*

Block, J. H., & Block, J. (1982). The role of ego-control and ego-resiliency in the organization of behavior. *Development of Cognition, Affect, and Social Relations: The Minnesota Symposia on Child Psychology*, 39-101. Psychology Press.

Bonanno, G. A. (2004). Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events? *American Psychologist*, *59*(1), 20–28. <https://doi.org/10.1037/0003-066X.59.1.20>

- Bonanno, G.A., Westphal, M., & Mancini, A.D. (2011) Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7(1), 1-25. <https://doi.org/10.1146/annurev-clinpsy-032210-104526>
- Brody, G.H., Stoneman, Z & Flor, D. (1996). Parental religiosity, family processes, and youth competence in rural, two-parent African American families. *Developmental Psychology*, 32(4), 696-706. <https://psycnet.apa.org/doi/10.1037/0012-1649.32.4.696>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, Mass: Harvard University Press.
- Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2003). Characteristics of resilient youths living in poverty: The role of self-regulatory processes. *Development and Psychopathology*, 15, 139-162. <https://doi.org/10.1017/s0954579403000087>
- Carver, C.S. (1998). Resilience and thriving: Issues, models, and linkages. *Journal of Social Issues*, 54(2), 245-266. <https://psycnet.apa.org/doi/10.1111/0022-4537.641998064>
- Chmitorz, A., Neumann, R. J., Kollmann, B., Ahrens, K. F., Öhlschläger, S., Goldbach, N., Weichert, D., Schick, A., Lutz, B., Plichta, M. M., Fiebach, C. J., Wessa, M., Kalisch, R., Tüscher, O., Lieb, K., & Reif, A. (2021). Longitudinal determination of resilience in humans to identify mechanisms of resilience to modern-life stressors: the longitudinal resilience assessment (LORA) study. *European Archives of Psychiatry and Clinical Neuroscience*, 271(6), 1035–1051. <https://doi.org/10.1007/s00406-020-01159-2>
- Cingel, D. P., Lauricella, A. R., Taylor, L. B., Stevens, H. R., Coyne, S. M., & Wartella, E. (2022). U.S. adolescents' attitudes toward school, social connection, media use, and

mental health during the COVID-19 pandemic: Differences as a function of gender identity and school context. *PLoS ONE*, 17(10), e0276737.

<https://doi.org/10.1371/journal.pone.0276737>

Cunha & Heckman (2009). Investing in our young people. *National Bureau of Economic Research Working Paper Series*, 16201.

De France, K., Hancock, G. R., Stack, D. M., Serbin, L. A., & Hollenstein, T. (2022). The mental health implications of COVID-19 for adolescents: Follow-up of a four-wave longitudinal study during the pandemic. *American Psychologist*, 77(1), 85–99.

<https://doi.org/10.1037/amp0000838>

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>

Elo, S. & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>

Fritz, J., de Graaff, A.M., Paisley, H., van Harmelen, A.L., & Wilkinson, P.O. (2018). A systematic review of amenable resilience factors that moderate and/or mediate the relationship between childhood adversity and mental health in young people. *Frontiers in Psychiatry*, 9(230). <https://doi.org/10.3389/fpsyt.2018.00230>

Fergus, S., & Zimmerman, M.A. (2005). Adolescent resilience: A framework for understanding health development in the face of risk. *Annual Review of Public Health*, 26, 399-419.

<https://doi.org/10.1146/annurev.publhealth.26.021304.144357>

- Harter, S. (2002). Authenticity. In C.R. Snyder & S.J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 382-394). Oxford University Press.
- Hauser, S.T. (1999). Understanding resilient outcomes: Adolescent lives across time and generations. *Journal of Research on Adolescence*, 9(1), 1-24.  
[https://psycnet.apa.org/doi/10.1207/s15327795jra0901\\_1](https://psycnet.apa.org/doi/10.1207/s15327795jra0901_1)
- Herrman, H., Stewart, D.E., Diaz-Granados, N., Berger, E.L., Jackson, B., & Yuen, T. (2011). What is resilience? *Canadian Journal of Psychiatry*, 56(5), 258-265.  
<https://doi.org/10.1177/070674371105600504>
- Infurna, F.J., & Jayawickreme, E. (2019). Fixing the growth illusion: New directions for research in resilience and posttraumatic growth. *Current Directions in Psychological Science*, 28(2), 152-158. <https://doi.org/10.1177/0963721419827017>
- Irwin, M., Lazarevic, B., Soled, D., & Adesman, A. (2022). The COVID-19 pandemic and its potential enduring impact on children. *Current Opinion in Pediatrics*, 34(1), 107–115.  
<https://doi.org/10.1097/MOP.0000000000001097>
- Jiang, H., Yu, W., Lin, D., & Macnamara, B.N. (2021). Resilience of adolescents, though weakened during pandemic-related lockdown, serves as a protection against depression and sleep problems. *Psychology, Health & Medicine*, 26, 1-12.  
<https://doi.org/10.1080/13548506.2021.1990367>
- Kalish, R., Baker, D., Basten, U., Boks, M.P., Bonanno, G.A., Brummelman, E., Chmitorz, A., Fernandez, G., Fiebach, C.J., Galatzer-Levy, I., Geuze, E., Groppa, S., Helmreich, I.,

- Hendler, T., Hermans, E.J., Jovanovic, T., Kubiak, T. Lieb, K., Lutz, B. ... & Kleim, B. (2017). *Nature Human Behavior*, 1, 784-790. <https://doi.org/10.1038/s41562-017-0200-8>
- Kashdan, T.B., McKnight, P.E., & Goodman, F.R. (2021). Evolving positive psychology: A blueprint for advancing the study of purpose in life, psychological strengths, and resilience. *The Journal of Positive Psychology*, 17(2), 210-218. <https://doi.org/10.1080/17439760.2021.2016906>
- Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of personality and social psychology*, 42(1), 168.
- Kuhlman, K.R., Straka, K., Mousavi, Z., Tran, M., & Rodgers, E. (2021). Predictors of adolescent resilience during the COVID-19 pandemic: Cognitive reappraisal and humor. *Journal of Adolescent Health*, 69(5), 729-736. <https://doi.org/10.1016/j.jadohealth.2021.07.006>
- Leipold, B., & Greve, W. (2006). Resilience: A conceptual bridge between coping and development. *European Psychologist*, 14(1), 40-50. <https://doi.org/10.1027/1016-9040.14.1.40>
- Liang, L., Ren, H., Cao, R., Hu, Y., Qin, Z., Li, C., & Mei, S. (2020). The effect of COVID-19 on youth mental health. *Psychiatric Quarterly*, 91, 841-852. <https://doi.org/10.1007/s11126-020-09744-3>
- Luthar, S.S. (2015). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D.J. Cohen (Eds.), *Developmental Psychopathology: Risk, disorder, and adaptation (2nd ed., Vol. 3)*. John Wiley & Sons, Inc..

- Luthar, S.S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Developmental and Psychopathology*, *12*(4), 857-885.  
<https://doi.org/10.1017/S0954579400004156>
- Luthar, S.S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, *71*(3), 543-562.  
<https://doi.org/https://doi.org/10.1111%2F1467-8624.00164>
- Mahoney, J. L. (2000). School extracurricular activity participation as a moderator in the development of antisocial patterns. *Child Development*, *71*, 502-51.  
<https://doi.org/10.1111/1467-8624.00160>
- Mancini, A.D., & Bonanno, G.A. (2009). Predictors and parameters of resilience to loss: Toward an individual differences model. *Journal of Personality*, *77*(6), 1805-1832.  
<https://doi.org/10.1111/j.1467-6494.2009.00601.x>
- Masten, A.S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227-238. <https://psycnet.apa.org/doi/10.1037/0003-066X.56.3.227>
- Masten, A.S., & Cicchetti, D. (2016). Resilience in development: Progress and transformation. In D. Cicchetti (Ed.), *Developmental psychopathology: Risk, resilience, and intervention* (pp. 271-333). John Wiley & Sons, Inc..  
<https://psycnet.apa.org/doi/10.1002/9781119125556.devpsy406>
- Masten, A., Hubbard, J., Gest, S., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from



- childhood to late adolescence. *Development and Psychopathology*, *11*(1), 143-169.  
doi:10.1017/S0954579499001996
- Miller-Graff, L.E. (2022). The multidimensional taxonomy of individual resilience. *Trauma, Violence & Abuse*, *23*(2), 660-675. <https://doi.org/0.1177/1524838020967329>
- Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: a meta-analysis. *Personality and Individual Differences*, *127*(1), 56-60.  
<https://doi.org/10.1016/j.paid.2018.01.048>
- Ong, A.D., & Leger, K.A. (2002). Advancing the study of resilience to daily stressors. *Perspectives on Psychological Science*, *17*(6), 1591-1603.  
<https://doi.org/10.1177/17456916211071092>
- Pizarro-Ruiz, J.P., & Ordóñez-Cambor, N. (2021). Effects of Covid-19 confinement on the mental health of children and adolescents in Spain. *Scientific Reports*, *11*, Article 11713.  
<https://doi.org/10.1038/s41598-021-91299-9>
- Richardson, G.E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, *58*(3), 307-321. <https://doi.org/10.1002/jclp.1002>
- Richardson, G.E., Neiger, B.L., Jensen, S., & Kumpfer, K.L. (1990). The resiliency model. *Health Education*, *21*(6), 33-39. <https://doi.org/10.1080/00970050.1990.10614589>
- Rozek, C. S., Ramirez, G., Fine, R. D., & Beilock, S. L. (2019). Reducing socioeconomic disparities in the STEM pipeline through student emotion regulation. *Proceedings of the National Academy of Sciences of the United States of America*, *116*(5), 1553–1558.  
<https://doi.org/10.1073/pnas.1808589116>

- Schleider, J. L., Mullarkey, M. C., Fox, K. R., Dobias, M. L., Shroff, A., Hart, E. A., & Roulston, C. A. (2022). A randomized trial of online single-session interventions for adolescent depression during COVID-19. *Nature Human Behaviour*, 6(2), 258–268. <https://doi.org/10.1038/s41562-021-01235-0>
- Schmader, T., & Sedikides, C. (2017). State authenticity as fit to environment: The implications of social identity for fit, authenticity, and self-segregation. *Personality and Social Psychology Review*, 22(3), 228-259. <https://doi.org/10.1177/1088868317734080>
- Scott, S.R., Rivera, K.M., Rushing, El., Manczak, E.M., Rozek, C.S., & Doom, J.R. (2020). “I hate this”: A qualitative analysis of adolescents’ self-reported challenges during the covid-19 pandemic. *Journal of Adolescent Health*, 68(2), 262-269. <https://doi.org/10.1016/j.jadohealth.2020.11.010>
- Seidman, E., & Pedersen, S. (2003). Holistic, contextual perspectives on risk, protection, and competence among low-income urban adolescents. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 318-342). Cambridge.
- Shaikh, A., & Kauppi, C. (2010). Deconstruction resilience: Myriad conceptualizations and interpretations. *International Journal of Arts and Sciences*, 3(15), 155-176.
- Skala, K., & Bruckner, T. (2014). Beating the odds: an approach to the topic of resilience in children and adolescents. *Neuropsychiatry*, 28, 208–217. <https://doi.org/10.1007/s40211-014-0125-7>

- Smith, E. N., Romero, C., Donovan, B., Herter, R., Paunesku, D., Cohen, G. L., Dweck, C. S., & Gross, J. J. (2018). Emotion theories and adolescent well-being: Results of an online intervention. *Emotion, 18*(6), 781–788. <https://doi.org/10.1037/emo0000379>
- Southwick, S.M., Bonanno, G.A., Masten, A.S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European Journal of Psychotraumatology, 5*, Article 25338.
- Spencer, M.B. (1999). Social and cultural influences on school adjustment: The application of an identity-focused cultural ecological perspective. *Educational Psychologist, 34*(1), 43-57. [https://psycnet.apa.org/doi/10.1207/s15326985ep3401\\_4](https://psycnet.apa.org/doi/10.1207/s15326985ep3401_4)
- Spencer, M.B., Fegley, S., & Harpalani, V. (2003). A theoretical and empirical examination of identity as coping: Linking coping resources to the self processes of African American youth. *Applied Developmental Science, 7*(3), 181-188. [http://dx.doi.org/10.1207/S1532480XADS0703\\_9](http://dx.doi.org/10.1207/S1532480XADS0703_9)
- Taylor, M.M., Wicks, J.L., Fassett-Carman, A.N., & Snyder, H.R. (2022). Differences in depression, anxiety, and coping in emerging adults prior to versus during the COVID-19 pandemic. *Translational Issues in Psychological Science, 8*(3), 431-439. <http://dx.doi.org/10.1037/tps0000310>
- Tedeschi, R.G. & Calhoun, L.G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*(1), 1-18. [https://doi.org/10.1207/s15327965pli1501\\_01](https://doi.org/10.1207/s15327965pli1501_01)

- Theron, L. (2020). Adolescent versus adult explanations of resilience enablers: A South African study. *Youth & Society*, 52(1), 78–98. <https://doi.org/10.1177/0044118X17731032>
- Thompson, E.-G., Knowles, S. F., & Greasley, P. (2019). Understanding resilience in young people with complex mental health needs: A Delphi study. *Clinical Child Psychology and Psychiatry*, 24(3), 405–416. <https://doi.org/10.1177/1359104518794789>
- Troy, A.S., Willroth, E.C., Shallcross, A.J., Giuliana, N.R., Gross, J.J., & Mauss, I.B. (2022). Psychological resilience: An affect-regulation framework. *Annual Review of Psychology*, 74, 547-576. <https://doi.org/10.1146/annurev-psych-020122-041854>
- Ungar, M. (2006). Resilience across cultures. *British Journal of Social Work*, 38, 218-235. <https://doi.org/10.1093/bjsw/bcl343>
- Ungar, M. (2012). Social ecologies and their contribution to resilience. The social ecology of resilience. In M. Ungar (Ed.), *The Social Ecology of Resilience* (pp. 13-31). Springer. [http://dx.doi.org/10.1007/978-1-4614-0586-3\\_2](http://dx.doi.org/10.1007/978-1-4614-0586-3_2)
- Werner, E.E. (1992). The children of Kauai: Resiliency and recovery in adolescence and adulthood. *Journal of Adolescent Health*, 13, 262-268. [https://doi.org/10.1016/1054-139X\(92\)90157-7](https://doi.org/10.1016/1054-139X(92)90157-7)
- Westphal, M. & Bonanno, G.A. (2007). Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Applied Psychology: An International Review*, 56(3), 417-427. <https://doi.org/10.1111/j.1464-0597.2007.00298>.
- Wolin, S.J., & Wolin, S. (1993). *The resilient self: How survivors of troubled families rise above adversity*. Villard Books.

Velez, G., & Herteen, M. (2023). Developing Amid COVID-19: Adolescent Meaning Making Across the First Year of the Pandemic. *Contemporary Educational Psychology*, 75, 102212. <https://doi-org/10.1016/j.cedpsych.2023.102212>

Yeager, D. S., Bryan, C. J., Gross, J. J., Murray, J. S., Krettek Cobb, D., H F Santos, P., Graveling, H., Johnson, M., & Jamieson, J. P. (2022). A synergistic mindsets intervention protects adolescents from stress. *Nature*, 607(7919), 512–520. <https://doi.org/10.1038/s41586-022-04907-7>

Yeager, D. S., Dahl, R. E., & Dweck, C. S. (2018). Why interventions to influence adolescent behavior often fail but could succeed. *Perspectives on Psychological Science*, 13(1), 101–122. <https://doi.org/10.1177/1745691617722620>

Zautra, A.J., Arewasikporn, A., & Davis, M.C. (2010). Resilience: Promoting well-being through recovery, sustainability, and growth. *Research in Human Development*, 7(3), 221-238. <https://psycnet.apa.org/doi/10.1080/15427609.2010.504431>