

Centering Resiliency and Capturing Covitality: Patterns of Well-Being among Former Youth in Foster Care

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Abstract

While innumerable factors may impede a former foster student's educational or vocational success, less empirical attention has focused on systemically exploring psychosocial attributes among this resilient population. Utilizing a Strengths-Based Assessment (SBA) framework, this study expands upon recommendations for holistic and resiliency-informed assessments among former students in foster care. This pilot study informs a longitudinal investigation to systematically identify patterns of well-being among a highly resilient group of students pursuing post-secondary degrees. An exemplar multifaceted, strength-based framework with robust psychometric properties and international applications, known as Covitality, offers a promising framework for measuring well-being from the college student's perspective. Partnering with a community organization aims of this study include: (a) uncover patterns of well-being among a culturally rich and resilient population using a holistic measure of well-being (i.e., SEHS-HE), (b) identify positive psychological interventions uniquely tied to Covitality data, and (c) highlight qualitative feedback to amplify student voice and well-being promotion. 156 former foster youth responded to the SEHS-Higher Education (SEHS-HE) survey across two periods (Spring 2019, $n = 80$, and Spring 2021, $n = 76$). Data analytic methods included (1) descriptive statistics and parametric testing at wave one and (2) longitudinal analyses. Results from wave one participants indicate statistically significant differences ($p < .05$) in total Covitality by ultimate career goal, and Covitality significantly predicted life satisfaction among former foster youth. Implications for practice, positive psychological interventions, limitations, and future directions are offered to propel efforts towards centering resiliency, well-being, and educational success.

Introduction

The distressing effects of racial unrest, sociopolitical discord, natural disasters, and acts of violence reflect collective hardships experienced by citizens worldwide. These experiences have understandably raised concern for the mental well-being of people of all ages. They have shown to be of heightened concern among culturally and linguistically diverse individuals from minoritized backgrounds who historically have faced significant barriers to equitable access to mental health resources (Castro-Ramirez et al., 2021; Njoroge et al., 2021). College students with a history of involvement with the foster care system are a unique population of vulnerable individuals whose experiences of minoritization, racial discrimination, and trauma have been disproportionately impacted by Covid-19 (Ruff, Linville & Kjellstrand, 2022). Given the current social context, educational systems must prioritize and attend to the evolving and complex mental health needs and centralize efforts to foster optimal academic and social-emotional functioning among culturally diverse older adolescents and young adults. Pre-pandemic estimates reported that nearly **one in five adults** in the U.S. experienced mental health conditions, with **less than half** of individuals accessing or receiving care (National Alliance on Mental Illness, 2019). In the most recently published U.S Surgeon general report (2021), a state of emergency was declared concerning mental health needs. The Covid-19 pandemic is understood to have exacerbated pre-existing difficulties in young people's lives. The most alarming and negative impacts were observed among

students with disabilities, racial and ethnic minorities, LGBTQIA+ individuals, low-socioeconomic circumstances, rural areas, immigrant households, students in foster care, involvement with juvenile justice systems, and persons who experienced homelessness.

National policy statements in the U.S. have long called for systematic mental health and behavioral screening of school-aged youth (American Academy of Pediatrics, 2021a; Children's National, 2013). When left unaddressed, the compounding effects carry over into young adulthood, creating additional barriers toward thriving mental wellness trajectories and impacting postsecondary educational success. While the need for mental health services for students is peaking, the need-service gap continues to widen, especially for students of color, LGBTQIA+ identities, and those experiencing homelessness or have foster care system involvement (Centers for Disease Control, 2021; National Association of School Psychologists, 2021). With increased awareness of the benefits of attending to mental health and considering present-day circumstances, public policy and mental health experts emphasize the critical need to create pathways for equitable access to essential services (American Academy of Pediatrics, 2021b; National Alliance on Mental Illness, 2021; National Association of School Psychologists, 2021).

College students with experience in the foster care system often present with concomitant difficulties across the areas of education, behavior and social-emotional functioning, health, housing, and family support. Examining trend data and services gaps is essential to understand better, address, and identify opportunities for action (The California Alliance of Child and Family Services [CA Alliance], 2021). California was identified as ill-equipped to comprehensively meet the needs of students in foster care with high levels of trauma. Trend data revealed in attempts to enact recommendations outlined in California's Continuum of Care Reform (CCR) (AB-403) of 2015 and Family First Prevention Services Act (FFPSA) of 2018, ongoing and continued gaps remain concerning accessing and delivering services to young people with systems involvement. Among the 15 areas, four domains provide pathways for action for mental wellness prevention and promotion and support efforts towards building a comprehensive service delivery continuum for students with foster care backgrounds. These domains include: (a) adequately investing in current programs and services, (b) investing in and incentivizing prevention services, (c) narrowing the educational achievement gap for foster youth, and (d) supporting transition-age foster youth (TAY) as they prepare for adulthood (see *Keeping Youth Close to Home: Building a Comprehensive Continuum of Care for California's Foster Youth, executive summary*, CA Alliance, 2021 for full findings). Together, these calls and data trends urge providers and policymakers to ensure the availability of high-quality, evidence-based mental health supports to build upon psychosocial strengths and mitigate traumatic experiences.

To better understand the processes by which a young adult can thrive in life despite cumulative adverse life experiences, Positive Psychology and Strengths-Based Assessment (SBA) literature offers helpful frameworks to discern this phenomenon. Positive Psychology aims to help individuals flourish and thrive by focusing on their positive capacities (Seligman, 2011). We advocate that using culturally affirming and strengths-based assessment (SBA) approaches reflect a promising best practice approach for implementing well-being assessments to centralize resiliency among former and current youth in foster

care. A holistic approach that examines strengths in combination rather than in isolation is more advantageous for assessing the integrative effects of the core components of positive psychosocial development (Lenzi et al., 2015).

Centralizing Resiliency among Former Students in Foster Care

The risk factors, deficits, levels of pathology, low statistical odds of postsecondary degree achievement, and barriers to success faced by youth in the foster care system face are well-documented. Such findings represent a continued deficit-bias narrative that persists among most literature associated with this vulnerable yet competent population. College students with experiences in the foster care system have endured cumulative adversity, contributing to more challenges as they attempt to transition to adulthood successfully (Jones, 2012). A rising number of studies have begun to examine resiliency within educational settings among students with foster care involvement. Studies investigating the importance of being in school to bolster protective factors, cultivate social connections, increase competencies, experience academic success, and serve as a gateway towards a successful transition into adulthood help counter deficit-bias narratives (Strolin-Goltzman et al., 2016).

Well-intended quantitative studies purporting to focus on well-being or resilience among this group have relied on misrepresentative composite scores that are inappropriate for minoritized populations (e.g., former students in foster care). Some studies have used methodology which includes outcomes that students in foster care have not had the opportunity to actualize due to their unique lived experiences (Carroll, 2022). Examples include the presence of positive outcomes or single construct items (e.g., optimism, self-esteem, adult connections, employment, stable housing, preparedness for independent living, adjustment, civic engagement, education attainment), or absence of negative outcomes or traditional deficit-based indicators (e.g., avoiding substance use and teen pregnancy, homelessness, not having contact with the justice system, depression) as the core constructs for conceptualizing and assessing foster and former foster youth resiliency or well-being (Jones, 2012; Shpiegel, 2015). Further, researchers have primarily relied on theoretical definitions for resiliency to conceptualize well-being among youth in foster care; however, these definitions are often not in congruence with the tools selected to measure resilience or well-being appropriately. That is, the conceptual model does not align with the measurement model. When working with students from foster care, mixed methods approaches add value and are ethically imperative to amplify student voice within the process (Strolin-Goltzman et al., 2016). The need for multidimensional models (e.g., dual-factor, complete mental health, strengths-based assessment) of mental wellness and resilience among current and former students in foster care is highly recommended and of critical importance in present-day circumstances (Rebelez-Ernst, 2015; Yates & Grey, 2012).

Theoretical Frameworks

Positive Psychology and Resiliency Theory

Resiliency is an important asset and critical factor that has positive associations with hedonic (e.g., happiness, subjective well-being, life satisfaction, presence of positive emotions) and eudaimonic well-being (e.g., self-realization, psychological well-being, focus on resources and strengths; Di Fabio & Palazzeschi, 2015). In short, resiliency refers to the capacity of human beings to experience good outcomes despite having faced serious threats (adversities) to their adaptation or development (Masten, 2001). Resiliency is not an attribute of an individual; instead, it is a complex process involving internal cognitive, personality factors, and the functioning of external protective factors, such as caring adults (Garmezy & Masten, 1986). Resiliency can be understood as a process that unfolds within the context of development and many other temporal and contextual factors (Masten, 2001). Protective factors— both internal and external sources that help a person thrive despite of adverse circumstances— are critical assets to identify when examining resiliency and well-being (Garmezy & Masten, 1986).

Strengths-Based Assessment (SBA)

As an ongoing chief public health concern, systematic procedures for capturing students and families' multifaceted needs and associated strengths are critical to ensuring positive development. Researchers and practitioners who use strengths-based approaches have conceptualized their frameworks using resilience theory (Rawana & Brownlee, 2009). Strength-Based Assessment (SBA) has a niche within contemporary positive psychology and offers a complimentary evaluation component to traditional mental health assessments. Broadly, SBA is conceptualized as "the measurement of internal and external emotional and behavioral competencies that enhance one's ability to develop relationships, deal with stress, and promote optimal development" (Nickerson, 2007). Positive psychological researchers propel the paradigm shift away from deficit-based assessment by emphasizing the need for integrated mental health classification systems, such as SBA, Dual Factor Models (DFM; Suldo & Shaffer, 2008), and Complete Mental Health (Keyes & Michalec, 2010). Students thrive when there is a focus on supporting the development of psychosocial strengths that promote positive, supportive day-to-day interactions with caregivers, teachers, and peers (Furlong et al., 2020). The evaluation of strengths is essential for implementing balanced and multicomponent assessment practices, with the added benefit of providing clinicians with a more complete understanding of their life circumstances (Rashid & Ostermann, 2009; Simmons & Lehmann, 2013). SBA is a positive paradigm shift that advances how practitioners and educators think about and use assessment tools. SBA has broad benefits when used to monitor the psychosocial strengths of all students, and strengths-focused measures have the most significant utility when used to obtain comprehensive information about optimal psychosocial factors that impact development and foster resiliency.

Standardized assessments of student strengths provide critical information regarding assets and resiliency factors that can be intentionally incorporated into service planning beyond traditional trauma-informed/pathology-based practices. SBA practices are essential for students with or at risk for disabilities or diagnoses stemming from traditional deficit-based approaches to assessing risks and symptoms, such as students from foster care. An SBA approach is necessary for use with Black, Indigenous, People of Color (BIPOC), and students with long-standing histories of discriminatory referral

and assessment practices. Paz et al., (2021) suggest the adoption of a specific SBA model should be based on: (a) a conceptual framework of positive psychosocial strengths; (b) feasibility and utility as school-based universal screening measures (reasonable length and availability of self-report); and (c) evidence of compelling psychometric properties, including replicated validity and reliability. There is a growing bank of over 150 tools with acceptable psychometric properties for practitioners and educators to incorporate into SBA practices (e.g., optimism, resilience, grit, hope, emotional intelligence; Simmons & Lehmann, 2013). Results yielded from SBA inform positive psychological intervention recommendations and identify areas of strength to expand upon (Rashid & Ostermann, 2009).

Covitality

Conceptualized as the counterpart to comorbidity, Furlong and colleagues (2014) defined Covitality as “the synergistic effect of positive mental health resulting from the interplay among multiple positive psychological building blocks.” Covitality is a positive psychological construct that measures psychosocial assets (internal and external) in combination (Furlong et al., 2014). The Covitality framework offers a holistic approach to measuring what is going well with a student to support their educational success and identifies areas to strengthen utilizing positive psychological interventions. The psychosocial strengths included in the model have been found to map onto a higher-order latent construct—*Covitality*. The combination of these strengths is more robust than an isolated construct when considering the quality of life among students. The Covitality framework aims to identify psychosocial strengths related to resiliency and highlights the notion that when the 12 psychosocial strengths develop in harmony, the outcome reflects overall well-being.

The framework posits a developmental process from childhood through young adulthood, in which a person forms, sustains, nurtures, and enhances cognitive schemas that organize life experiences and give them meaning. From a transactional development lens, the development of core psychosocial strengths (e.g., gratitude, empathy, and persistence) promotes positive interpersonal transactions within a child’s socio-ecological system, which contributes to better developmental outcomes (Furlong et al., 2020). In the Covitality conceptual framework, students are thriving and flourishing when developing these cumulative psychosocial strengths that promote positive, supportive everyday interactions with individuals (e.g., family, faculty, and peers) within their immediate microsystem. When emphasizing these critical positive psychological dispositions in educational environments, educators support students’ ability to engage meaningfully in “interpersonal transactions that facilitate their near- and long-term development across their bio-psycho-social developmental domains” (Furlong, et al., 2020, p. 6). The likelihood of students achieving positive developmental outcomes increases when they have internal dispositions and skills to proactively influence the quality of their daily interpersonal interactions. The 12 psychosocial strengths embedded in the Covitality framework focus on adaptive self-schemas associated with resilience and their relation to thriving developmental outcomes. For a review of operational definitions for each of the 12 positive psychological assets, see Table 2.1 in Renshaw et al., 2014, and for a review of the updated conceptual model for assessing psychosocial strengths and well-being, see Paz and Kim, 2022.

The Covitality framework has been translated onto a robust measurement system, the Social-Emotional Health Survey (SEHS). The SEHS is a strengths-based assessment system that measures a range of social and emotional skills and psychological dispositions that are empirically associated with positive student development and resiliency. The SEHS system has been widely applied in DFM, and complete mental health screening approaches with a Multi-tiered Systems of Supports (MTSS) framework (Moore, et al., 2019, Furlong, Dowdy et al., 2022). There is a robust and growing literature base of over 100 studies examining the psychometric properties and applications of the SEHS, with documented validity and measurement invariance across a range of sociocultural groups within the United States (You et al., 2015). The measures have vast international applications (e.g., Spain, Lithuania, United Kingdom, Japan, Korea, China, Australia, Mexico, Turkey, Slovakia), have been translated and adapted in over 12 different languages, and have demonstrated evidence of identifying psychosocial strengths across a range of culturally and linguistically diverse students (e.g., *Latinx*—Hinton et al., 2021; *Korean*—Kim et al., 2016; *Japanese*—Lida, et al., 2019; *Spanish*—Rodriguez-Jimenez et al., 2017; *Persian*—Taheri et al., 2020). For an overview of international applications using the SEHS, see Paz et al., in press. As a measurement model, the Social-Emotional Health Survey (SEHS) system is composed of structured surveys that operationalize and measure Covitality and offers a method for assessing well-being and resiliency among students in primary school through higher education settings. For a comprehensive review of the recently revised SEHS-2020 model and technical manual, see Furlong et al., 2020.

Covitality Measurement Model: The Social-Emotional Health Survey System (SEHS). The SEHS survey system includes three self-report versions of the SEHS: Primary (SEHS-P; Furlong et al., 2013) for students ages 9-12, Secondary (SEHS-S; Furlong, et al., 2014) and SEHS-S 2020 version (Furlong, et al., 2020) for students ages 13-18, and Higher Education (SEHS-HE; Furlong et al., 2017) for college students. Recently, robust psychometric support was established for using the SEHS-S specifically for middle and junior high school students (Furlong, Paz et al., 2022). Each survey supports online, phone, or tablet/iPad-based administrations. Given this study's focus on a sample of college students, an overview of the SEHS-HE is subsequently provided.

The SEHS-HE is a 36-item measure that assesses 12 psychosocial strengths associated with four second-order latent traits—(a) belief-in-self (self-awareness, self-efficacy, persistence); (b) belief-in-others (family support, peer support, institutional support); (c) emotional competence (cognitive reappraisal, self-regulation, empathy); and, (d) engaged living (optimism, zest, gratitude). The four domains load onto a higher-order latent trait, Covitality, and yield a total Covitality score. For administration and interpretative information for each survey, refer to the Project Covitality website (<https://www.covitalityucsb.info/sehs-measures/index.html>).

A robust number of empirical studies provide evidence for the psychometric properties and applications of the SEHS primary and secondary surveys, including established support for the reliability and validity of the higher-order model, internal consistency, construct and predictive validity, and invariance across sociocultural and gender groups. However, fewer studies have investigated the SEHS-HE model. In their seminal paper, Furlong and colleagues (2017) assessed the structure and stability of the SEHS-HE model

with 1,413 diverse college students enrolled at a California university. Students included in their survey represented a broad range of socio-cultural backgrounds (i.e., 25% Latinx, 3% Black/African-American, 28% East Asian-Asian, 3% Middle Eastern, 3% South Asian, 3% Pacific Islander, 2% Native American/Alaskan Native, and 45% White). Measurement refinement began with a pool of 72 items and refined to a 48-item measure was presented to participants in this study. Overall, reliability coefficients for the psychosocial assets ranged from adequate to excellent across the four subscales, and items with poor coefficients were recommended to be dropped. Confirmatory Factor Analyses (CFA) yielded an acceptable fit for the SEHS-HE second-order Covitality latent structure. A final set of 36-items were retained based on adequate to strong fit indices. Complete invariance was obtained for gender, and a four-month stability coefficient (.82) indicated that the survey measured trait-like positive psychological constructs. The SEHS-HE total Covitality index demonstrated evidence of concurrent and predictive validity with other quality of life outcomes, including Subjective Well-Being (SWB: male .72, female .65) and psychological distress (male -.56, female -.45). The validity and applicability of the SEHS-HE were evaluated among a population of Turkish college students, and results from CFA found acceptable model fit for the latent measurement model and second-order covitality latent construct (Arslan et al., 2020). Further, results from this study indicated that total Covitality scores were associated with higher levels of mental well-being, higher academic achievement, and lower levels of psychological symptoms (Arslan et al., 2020).

No studies to date have utilized the SEHS-HE with a population of former foster youth, highlighting a gap in the literature and essential need for centralizing strengths among a historically minoritized population utilizing a multiasset and psychometrically sound measure. Thus, this study is the first to provide expanded application evidence for using the SEHS among a resilient population of former foster youth within higher education settings.

Study Aims

This study intends to increase efforts to flip the script of deficit-biased narratives and shift towards centralizing the resiliency and psychosocial assets among this historically minoritized population who present with beautiful intersecting identities and diverse cultural and linguistic backgrounds. Utilizing a robust strengths-based assessment framework (Covitality and the SEHS-HE), this project expands and responds to recommendations necessitating more holistic and resiliency-informed assessments of well-being among students from foster care. Specifically, this project implemented a pilot study to inform a longitudinal investigation aimed at systematically identifying patterns of well-being and resiliency among a group of former students in foster care pursuing higher education degrees. Using a Community Based Participatory Research design (CBPR) in partnership with a community organization supporting current and former foster youth, community partners were included in every aspect of the research process from research design, hypothesis generation, results interpretation, and dissemination (Hacker, 2013). In partnership with the community organization, this project aimed to: (a) use descriptive quantitative, and longitudinal analyses to uncover patterns of well-being among this resilient population using a holistic measure of well-being, (b) identify positive psychological interventions uniquely tied to Covitality

outcome data, and (c) present qualitative feedback to highlight student voice to enhance programming and mentoring support services to improve mental health prevention and promotion.

Demographic and covariate variables were intentionally incorporated to answer hypotheses generated jointly between researchers and community partners. In addition to uncovering patterns of Covitality with an intentional focus on experiences disaggregated by race/ethnicity, researchers and community partners were interested in the following hypotheses: (a) students who have a history of fewer foster placements (i.e., less than 5) will have higher levels of total Covitality, (b) students with a history in one type of foster placement setting (i.e., foster home vs group homes vs combination), will have higher levels of total Covitality, and (c) students with higher overall educational goals will have higher levels of total Covitality. Predictive validity between Covitality and life satisfaction was examined to determine whether higher levels of Covitality predict greater self-reported satisfaction with life, as found in previous studies using the SEHS-HE with college-aged populations (Furlong et al., 2017). Lastly, given the design as a pilot study to inform a longitudinal investigation of stability in Covitality patterns across the length of enrollment in this community organization, longitudinal analyses were attempted between data collected at two time points.

Significance of the Project

To date, this is the first study to systematically explore psychosocial assets associated with resilience using the SEHS-HE among former students in foster care youth pursuing higher education degrees. This study collected seminal data to inform a longitudinal research design aimed at authentically evaluating and tracking the stability of Covitality/wellness profiles from a strengths-based perspective. The SEHS-HE outcome data help shape services and supports available for local current and former students in foster care to increase graduation rates and advocate for mental health promotion. Results from this study can inform educational policies related to best practices in supporting the educational and social-emotional success of students with experience in the foster care system.

Method

Participants

Table 1 provides an overview of demographic characteristics and covariates for wave 1 participants. Participants in this study represent a diverse sample of college students across age (between 18 and 26+ years old), race/ethnicity (Hispanic/Latinx, Black/African-American, Asian, White, Other/Multiple), languages, higher education setting, self-reported GPAs, ultimate educational goal, and placement history within the foster care system. In addition to English, 24% of participants indicated fluency in Spanish, French (2%), Korean (1%), and other languages (4%). Students in this sample ranged across higher education settings, which included enrollment in a certificate or vocational program, two-year Community College, four-year University, or graduate school (i.e., master's or doctorate program). Self-reported GPAs ranged from below 1.5 to 3.5-4.0. Concerning history of placements within foster care, 46% of students indicated foster-home-only placements, and 48% reported placements in both foster and group home

settings. Additionally, 52% of students indicated that they experienced high levels of mobility (more than five different placements) while in the foster care system.

Procedure

Scholars were invited to participate through a partnership with a community organization in southern California that provides integrated support and scholarships for former students in foster care who have goals of obtaining a higher educational degree. Following IRB approval, students were self-selected to participate based on an announcement shared by their program coordinator. Scholars across all years in the program were invited to participate in this study. Participants were asked to anonymously complete the SEHS-HE via a secure web-based link at two intervals, Fall 2019 and Spring 2021. Students received a \$15 gratitude gift card following each survey administration.

Overall, 80 scholars provided consent to participate, representing a 93% participation rate during the first wave of data collection (prior to data cleaning procedures). Wave one of survey administration occurred during the Fall 2020 semester, before the onset of the Covid-19 pandemic. Wave two of survey administration was delayed due to the global pandemic and was carried out amidst virtual learning environments during the Spring 2021 semester. A total of 76 scholars, including a mix of returning and new scholars, provided consent to participate in the study during wave two of data collection.

Measures

SEHS-HE. The SEHS-HE survey was included to measure student well-being and psycho-social assets. All 36 items were included in the survey administration to yield a total Covitality score and four subscale composite scores. Reliability coefficients (Chronbach's alpha) for each of the four subscales fell within the acceptable to excellent range: Belief-in-Self ($\alpha = .85$), Belief-in-Others ($\alpha = .79$), Emotional Competence ($\alpha = .80$), and Engaged Living ($\alpha = .86$), indicating adequate to strong estimates of internal consistency. The total Covitality composite yielded excellent reliability ($\alpha = .93$).

While no modifications were made to the SEHS-HE survey wording, researchers offered an expanded definition for questions about family support. The intention of including an expanded definition was to provide a more accessible and relatable definition of family, as students with experiences in foster care often have highly varied views and individualized inclusion criteria for whom they consider family. The following expanded definition was included in parenthesis after each family support question, "*Family might mean immediate people in your home, caregivers, extended family members, or family friends.*" Table 2 provides an overview of the SEHS-HE survey items and the expanded definition for the three questions related to family support.

Subjective Well-Being. As a general measure of subjective well-being and quality of life indicator, life satisfaction was measured using a single-item measure, "*In general, how satisfied are you with your life?*" Students were asked to rate their overall level of satisfaction with their life, using a sliding bar with anchors from 0 (*not satisfied at all*) to 100 (*completely satisfied*). Researchers assessing the validity of

single-item life satisfaction measures have found a substantial degree of criterion validity when compared to multi-item Satisfaction with Life Surveys (SWLS). Single-item life satisfaction measures performed highly similarly to multi-item SWLS, with nearly identical results (Cheung & Lucas, 2014). A single-question life satisfaction item was presented to participants to maximize survey parsimony.

Qualitative Feedback Questions. Following the SEHS-HE questionnaire, students were presented with open-ended questions inviting them to share their thoughts and feedback about the scholarship program and specific suggestions for how the mentoring program could help them succeed. These questions were intended to provide specific feedback to the community organization to enhance program services and inform mentor training. In addition, responses from participants were reviewed in conjunction with responses on the SEHS-HE items to ensure their voices were amplified throughout this process and allow space to reflect upon experiences.

Data Analytic Plan

The current study separates the data analysis into two parts: 1) descriptive statistics and parametric testing (two-way analysis of variance and regression) at wave one, and 2) longitudinal analyses over time. All analyses and data cleaning procedures were performed using R via RStudio (R Core Team, 2021).

Descriptive Statistics and Parametric Testing

Descriptive statistics of demographic variables include age, gender, race/ethnicity, type of placement, number of placements, higher educational settings, overall GPA, and ultimate educational goal. Correlations, in addition to descriptive statistics, of Covitality, each of the subscales (Belief-in-Self, Belief-in-Others, Emotional Competence, and Engaged Living), and life satisfaction are presented in Table 3. Two-way ANOVAs and correlations were conducted to identify relationships of Covitality among foster youth and linear regressions were carried out to examine the predictors of life satisfaction using wave one (2019) participants.

Longitudinal Analyses

Researchers anticipated measuring longitudinal stability of Covitality patterns across wave one and two; however, there was a sample size of $N= 13$ pairs over time to analyze stability over time ($N= 90$ total students). A power analysis was conducted using the R package *pwr* (Champely, 2020) to determine the power for a dependent samples t -test given the sample size. Results indicated the estimated power for detecting a medium effect with a sample of 13 pairs, at a significance criterion of $\alpha= .05$, was approximately 38% for the paired-samples t -test. Given the insufficient power to detect mean differences over time, wave one analyses were replicated in wave two to gather information related to Covitality patterns across two intervals (2019 pre-pandemic and 2021 amidst pandemic). Results were compared anecdotally.

Qualitative Feedback from Scholars

Responses from two open-ended questions will be anecdotally reviewed to highlight student voices and experiences within their scholarship program. While no formal qualitative analyses will be conducted as part of this study, select narratives will be integrated into the discussion of results section to amplify student voices and experiences related to their well-being and resiliency.

Results

Responses in waves one and two were screened and cleaned prior to data analysis. Several participants were removed from analyses for the following reasons: participants' responses appeared more than once in one timepoint or participants had missing data on all items. In summary, there were $n= 50$ participants in wave one and $n= 40$ participants in wave two. There were $n= 13$ pairs of participants and $n= 77$ unique participants across waves.

Wave One Findings

A series of one-way ANOVAs were performed to examine statistical differences of Covitality between placement type, number of placements, race/ethnicity, and higher education enrollment. A one-way ANOVA revealed a statistically significant difference in total Covitality between at least two of the ultimate career goals selected by the participants, $F(4, 45) = 9.139, p < .001$. Tukey's HSD Test for multiple comparisons found that the mean value of total Covitality was significantly different between those who selected 2-Year CC and Certificate/Vocational ($p < .001$, 95% C.I. = [19.733, 69.766]), 4-Year University and Certificate/Vocational ($p < .001$, 95% C.I. = [12.191, 55.253]), Master's Degree and Certificate/Vocational ($p < .001$, 95% C.I. = [20.592, 64.264]), Doctorate of Philosophy and Certificate/Vocational ($p = .002$, 95% C.I. = [9.437, 53.562]). Figure 1 plots the mean differences in total Covitality between selected ultimate educational goal. There were no statistically significant differences for all other included covariates, $p > .05$.

Simple linear regression was conducted to test if total Covitality significantly predicted life satisfaction among former foster youth in college. The overall regression was statistically significant (Adjusted $R^2 = .4132, F(1, 45) = 33.39, p < .001$). It was found that total Covitality significantly predicted life satisfaction among former students in foster care ($\beta = 1.020, p < .001$), as depicted in Figure 2. To further examine Covitality patterns, a multiple regression was conducted to predict life satisfaction across the four subscales of Covitality. The overall regression was statistically significant (Adjusted $R^2 = .5049, F(4, 42) = 12.73, p < .001$). It was found that Belief-in-Others ($\beta = 2.299, p < .001$) and Engaged Living ($\beta = 2.036, p < .001$) significantly predicted life satisfaction among former foster youth in college.

Wave 2 Findings

Analyses in wave one ($n = 50$) were replicated in wave two ($n = 40$). Contrary to wave one, participants in wave two found no statistically significant difference in total Covitality between participants' ultimate career goals, $p > .05$. Similar to wave one, there were no statistically significant differences for all other covariates, $p > .05$. To assess total Covitality as a predictor of life satisfaction among former foster youth

in college during the Covid-19 pandemic, results were contrary to wave one, in which the overall regression was not statistically significant at the .001 level ($F(4, 32) = 2.787, p = .043$).

Discussion

Due to insufficient power needed to examine the longitudinal patterns of Covitality across time, the discussion of findings will center around wave one data. In uncovering patterns of Covitality among former students in foster care, results from this study highlighted several important gleanings concerning the psychosocial assets among this capable population. Overall, the mean overall Covitality composite score for wave one participants fell within the high average range, with subscale scores across Belief-in-Self (BIS), Belief-in-Others (BIO), Emotional Competence (EC), and Engaged Living (EL) similarly falling within the high average range. This suggests that students with experience in the foster care system in this study who were enrolled in higher education presented with robust psychosocial assets across 12 positive psychological domains that contributed to their well-being scores. A disaggregated examination of patterns of Covitality and covariate variables yielded no statistically significant differences in either overall well-being composite scores or subdomains. That is, no differences in Covitality scores across race/ethnicity, age, language or gender identity were present. No statistically significant findings were obtained for our hypotheses related to history or number of foster placements or type of foster placement setting by total Covitality scores, suggesting that the number or type of placements were not associated with higher or lower levels of Covitality.

Of significance, results from this study affirmed our hypothesis, positing that students with higher overall educational goals report higher levels of total Covitality. Figure 3 summarizes patterns of total Covitality (i.e., low, low-average, above average, or high average) across self-reported GPA, educational setting, and overall educational goals for wave one participants. Notably and in line with our hypotheses, total Covitality scores significantly predicted students' self-reported life satisfaction among wave one participants. In particular, the BIO and EL domains were found to positively predict life satisfaction. While the results of this study provided congruent evidence supporting the SEHS-HE total score's concurrent and predictive validity for students' subjective well-being in line with previous findings (Furlong et al., 2017), the BIO and EL domains in predicting life satisfaction were novel for this population. Of practical significance, the BIO domain represented the subscale with the lowest mean score, highlighting the importance of boosting support involving family coherence, peer support, and institutional support among this population. In addition, psychosocial assets related to Engaged Living (i.e., optimism, zest, and gratitude) may serve as essential facilitators for higher levels of life satisfaction among students with experience in the foster care system.

Feedback from Scholars

A total of 51 scholars responded to open-ended questions about their thoughts and feedback for the scholarship and mentor program across wave one and wave two of data collection. Of the 51 responses, 49 comments reflected statements of satisfaction and gratitude for the community organization's

support in ensuring success in reaching their educational goals. One student shared, *"I really appreciate the program, I know that the staff care about us as students and people and are always willing to consider things that we encounter and difficulties that arise. I know this program makes so much of a difference and demonstrates a caring nature that can help reiterate a student's success and that someone believes in them and think they are worth "investing" in to help create change for this marginalized population."* Another scholar noted, *"[organization name] is an organization that gives foster youth and former foster youth hope and support to succeed. The staff has become a family I never had growing up and I am beyond thankful for the programs offered by [organization]."*

Several scholars noted feeling empowered and more successful due to the support and services provided by the organization, with one scholar reflecting, *"the program has provided me with a lot of empowering resources and life lasting connections that have been a blessing and I would not have been able to maintain my sanity if it was not for these type of programs, thank you."* Concerning scholar experiences with taking the survey, one student reflected, *"[taking this survey] really helped me understand people really care about me."*

Their voices reinforce the importance of connections with safe, supportive adults, mentors, and institutions in promoting the resiliency and well-being of youth with experience in the foster care system, which are in line with psycho-social assets included in the Belief-in-Others domain. These successful former students from foster care in higher education have shared valuable breadcrumbs for educators and practitioners to follow. Their insight directs us towards the importance of considering early implementation of positive psychological interventions for our capable youth currently in foster care to help them recognize their strengths and potentials and experience flourishing lives.

Implications for Practice

Decades of empirical attention have been focused on trauma-informed care and systems of support for youth in foster care. We must now look beyond assessing levels of trauma and pathology, especially among a population of students for which it is known that 100% have experienced cumulative traumatic events. Educators and practitioners might instead consider moving beyond a trauma-informed "understanding" to enact positive and proactive strategies to bolster resilience, well-being, and educational success through strengths-focused and healing-centered educational practices (Wilson & Richardson, 2020). SBA and positive psychological interventions provide resources for helping educators and practitioners unpack and organize the weights in the invisible backpacks students in foster care carry daily, and promote healing-centered organizational practices.

Using a strengths-based framework with this population allows practitioners to link students with targeted interventions aimed to build and expand upon psycho-social assets (e.g., hope, optimism, gratitude) that will enable them to experience positive growth rather than merely focus on ways to suppress trauma-related symptoms. Utilizing a strengths-based model with this population enables students to build upon and refine the strengths they naturally possess. Table 3 provides a summary of positive psychological interventions linked to each domain of Covitality, appropriate for use with diverse

college-age students. Depending on outcome goals, practitioners and educators could utilize this resource to springboard intervention planning, tied to SEHS-HE data across multiple levels including (a) for students individually (e.g., mental health assessments), (b) group or cohort-wide (e.g., universal wellness screenings), and (c) university or program-wide (e.g., program evaluation and intervention effectiveness). Educators and practitioners interested in utilizing the SEHS-HE to inform positive psychological intervention groups can disaggregate data to provide more strengths-focused data for students who are Dual Language Learners (DLL), BIPOC, and LGBTQIA+ youth. This would allow educators and practitioners to examine patterns of inequities to allow for curricula tailoring and resource re-allocation. Efforts towards implementing positive psychological interventions for students with experience in foster care align well with strategic state goals towards building a comprehensive service delivery continuum for students with foster care backgrounds (CA Alliance, 2021). Given the added benefit of attending to the 12 psycho-social assets measured in the SEHS-HE, there is value in implementing interventions across all Covitality domains to support overall resiliency and well-being.

Results from the present study suggest multiple potential intervention and prevention domains that could be tapped into with the goal of well-being promotion for students with a history in the foster care system. For example, in this study, SEHS-HE results were primarily analyzed at the whole program level. Findings from this study indicated that the domain with the lowest overall mean score was the Belief-in-Others domain, which also turned out to be a significant predictor of life satisfaction. Thus, at the organizational/whole group level, practitioners could consider interventions such as *use of music to strengthen social bonds* (peer support; Suttie, 2015), *natural mentoring* (family support; Thompson et al., 2016), and *encouraging prosocial actions* (institutional support; Greater Good in Education, 2022) to boost psycho-social assets related to Belief-in-Others. Additionally, results highlighted the Engaged Living domain (i.e., optimism, zest, and gratitude) as related to higher levels of life-satisfaction among this population of former students in foster care. Positive psychological interventions such as *gratitude sessions* (gratitude; Miller, 2017), *finding awe in everyday experiences* (zest; Allen, 2018), and *brain priming* (optimism; Sanderson, 2019) could be integrated program-wide to bolster competency in these domains to have a positive impact on student well-being and educational success.

Limitations & Future Directions

We hope that results from this pilot study inspire several subsequent investigations to centralize resiliency and promote well-being among students with experience in the foster care system. Due to significant barriers and interference brought on by the Covid-19 pandemic, the intended longitudinal investigation of stability in profiles of Covitality among former foster youth was not achieved in this current study and resulted in insufficient power for wave two data. Future studies could consider implementing Latent Transitional Analyses (LTA) to examine profile stability over time to provide expanded evidence of validity for using the SEHS-HE and Covitality model for use with students with a history in foster care. Additionally, future studies might benefit from considering psycho-social assets associated with higher graduation rates and program retention. Further, this pilot study originally intended to include a group of current adolescent students in foster care to compare with the college-age

population, however, the program serving current youth in foster care dissolved during the Covid-19 pandemic. Comparisons of other populations of thriving foster youth beyond those enrolled in postsecondary settings, such as vocational programs, real estate, entrepreneurs, arts, and music, among others, would be helpful in better understanding how psycho-social assets contribute to their well-being. Future investigations should seek to examine Covitality patterns and stability among current students in foster care and link them with early positive psychological interventions to support resiliency and promote educational success across multi-tiered system of supports (MTSS). Further, intervention effectiveness studies, tied to SEHS outcome data, which utilize and refine positive psychological and culturally-affirming practices, are essential for appropriately highlighting diverse student strengths and resiliency and producing positive outcomes, especially for students of color.

Future studies would benefit from establishing partnerships with community agencies or university-based campus organizations which house valuable mentorship programs to provide a supportive space to identify strengths, target areas for development, and monitor progress towards goals. Partnering with programs that offer a mentoring component is advantageous as quality mentorship can be a way to break unhealthy patterns and decrease adverse long-term outcomes for individuals who have a history with the child welfare system, and increase assets associated with BIO (Greeson, 2013). Approaches such as Fostering Higher Education (FHE), which include comprehensive and structured elements (professional educational advocacy, substance abuse prevention, mentoring) aimed at postsecondary access and retention interventions for youth with foster care experience, offer a promising opportunities to embed wellness focused assessments and interventions to promote postsecondary success (Salazar, Haggerty & Roe, 2016). These partnerships are congruent with healing-centered approaches to working with students who have been impacted by trauma and provide a community of support to promote well-being and educational success. When we join our capable students in their communities to support their well-being and prioritize narratives of resilience, we may cultivate an environment of healing and provide a safe space for former students in foster care to actualize their potential.

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Tables

Table 1

Descriptive information for demographic and covariate variables

Sample Descriptive Information	<i>n</i>	%
<i>Age (n= 50)</i>		
18	5	10.00
19	9	18.00
20	6	12.00
21	6	12.00
22	8	16.00
23	3	6.00
24	3	6.00
25	2	4.00
26 or older	8	16.00
<i>Gender Identity (n= 50)</i>		
Non-Binary	0	0.00
Female	41	82.00
Male	9	18.00
<i>Race/Ethnicity (n= 50)</i>		
Hispanic/Latinx	21	42.00
Black/African American	7	14.00
Asian	3	6.00
White	15	30.00
Other	4	8.00
<i>GPA (n= 50)</i>		
Below 1.5	2	4.00
1.5 - 2.0	3	6.00
2.0 - 2.5	4	8.00
2.5 - 3.0	15	30.00
3.0 - 3.5	17	34.00
3.5 - 4.0	9	18.00
<i>Higher Education Setting (n= 50)</i>		
Vocational/Certificate Program	1	2.00
2 Year/Community College	22	44.00
4 Year Traditional College/University	21	42.00
4 Year Private College/University	2	4.00
Graduate School	4	8.00
<i>Ultimate Educational Goal (n= 50)</i>		

Certificate/Vocational	2	4.00
2-Year Community College	4	8.00
4-Year University	18	36.00
Master's Degree	14	28.00
Doctorate of Philosophy	12	24.00
<i>Type of Placement (n= 46)</i>		
Foster home(s) only	21	46.00
Group home(s) only	3	7.00
Group homes and foster homes	22	48.00
<i>Number of Placements (n= 50)</i>		
1-2	15	30.00
3-5	9	18.00
5-7	8	16.00
7 or more	18	36.00

Table 2

SEHS-HE Measure with expanded definitions for family support items*

Prompt: Read each item and choose the response that best describes you. Please be honest about your answers. There are no right or wrong answers. You can skip any questions you don't want to answer, or stop taking the survey at any time you feel uncomfortable

Response options:

1 = Not at all true, 2 = A little true, 3 = Pretty much true, 4 = Very much true

Belief-in-Self

Self-Efficacy

1. Generally, I feel capable of overcoming obstacles.
2. I will achieve most of the goals that I have set for myself.
3. I will be able to successfully overcome many challenges.

Persistence

4. I do not stop my work even if it is very difficult.
5. I persist on tasks that I cannot immediately complete.
6. I stay focused while studying despite distractions.

Self-Awareness

7. I am able to identify the motivations behind my actions.
8. I recognize my moods and feelings.
9. I have a good sense of why I have certain feelings most of the time.

Belief-in-Others

Family Support[□]

10. My family continues to love and support one another in tough situations.
11. There is a sense of togetherness in my family.
12. My family gets along well with each other.

Institutional Support

13. Outside of my friends, there are other people on campus who care about my well-being.
14. I feel like there is a strong feeling of togetherness on my campus.
15. I feel like I belong at this university/college.

Peer Support

16. I have a friend at my college who cares about me.
17. I have a friend who gives me the emotional support I need.
18. I can talk to my friends about pretty much anything.

Emotional Competence

Cognitive Reappraisal

19. When I feel down, I try to focus on the positives.
20. I can lift my mood by redirecting my thought to positive ideas.
21. I am able to think about the alternatives to a problem under stressful situations.

Empathy

22. I am aware of others' hardships.
23. I feel badly when my friends are put down.
24. I feel for my friends who are afraid or nervous about graduating.

Self-Regulation

25. I think about potential consequences before I act.
26. I can wait for what I want.
27. I think before I act.

Engaged Living

Gratitude

28. I appreciate the relationships I have developed throughout my life.
29. I appreciate those who are close to me.
30. When I reflect on my life, there is much to be grateful for.

Zest

31. My friends describe me as full of life.
32. I approach life with excitement and energy.
33. I feel energetic in my life right now.

Optimism

34. I am able to stay positive even when facing uncertain situations.
35. Each day I look forward to having a lot of fun.
36. I usually expect to have a good day.

*Note: SEHS-HE Items included in this survey represent the refined items and Likert-scale options based on cognitive interview modifications implemented following results and suggestions from the Furlong et al., 2017 study.

[□] Expanded definition provided for family support items 10-12: *"Family might mean immediate people in your home, caregivers, extended family members, and/or family friends"*

Table 3

Means, standard deviations, and correlations for wave one data

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Belief in Self	29.48	3.86					
2. Belief in Others	26.40	4.39	.42**				
3. Emotional Competence	29.18	3.72	.67**	.47**			
4. Engaged Living	29.10	4.01	.60**	.51**	.75**		
5. Total Covitality	114.16	13.12	.81**	.75**	.87**	.87**	
6. Life Satisfaction	73.62	20.96	.52**	.65**	.40**	.58**	.65**

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Table 4

Positive Psychology Interventions by Covitality Domains for College-Age or Adult Populations

Domain & Psychosocial Asset	Intervention	Brief Description	Reference & Link
<i>Belief-in- Self (BIS)</i>			
Self-Efficacy	<i>Sentence Stems</i>	A 5-10 minute activity that requires the participant to reflect on sentence stems and complete them to whatever capacity they can. The goal of this activity is for the participant to analyze and reflect on the thoughts they wrote down to gain a better sense of self. Ideal if this activity is completed over an extended period of time.	Positive Psychology (n.d.) https://bit.ly/3vjCjIx
Persistence	<i>Practicing Habits that Shape Persistence</i>	Persistence is a quality that allows individuals to continue putting effort into goals and tasks that are challenging and difficult. An individual can build persistence through the incorporation of activities that involve short-term and long-term <i>goal setting, understanding and increasing</i> “grit,” and	Washington University, Center for Teaching and Learning (n.d.). https://bit.ly/3BrpmAp

exploring why
 you are
 motivated to
 complete varying
 tasks (i.e., what
 do you gain from
 task completion).
 Duration of
 activity may
 vary.

Self-
 Awareness

*Self-Compassion
 Breaks*

Utilizing self-
 compassion
 breaks will allow
 individuals to
 acknowledge
 and name their
 current
 circumstances
 and feelings.
 Acknowledging
 the present
 increases self-
 aware thoughts
 and will activate
 mindfulness.
 Duration of
 activity may
 vary.

Ackerman, C. E.
 (2017) <https://bit.ly/3PJHMjQ>

*Belief-in-
 Others (BIO)*

Peer
 Support

*Use of Music to
 Strengthen Social
 Bonds*

Music can be a
 good base for
 increasing social
 support.
 Listening to
 music increases
 oxytocin,
 activates the
 "theory of mind"
 & empathy,
 initiates contact,
 coordination &
 cooperation with
 others, and
 promotes
 cultural
 cohesion.

Suttie, J.
 (2015) <https://bit.ly/2FfRQjA>

Family
 Support

*Importance of
 Mentorship:*

Natural
 mentoring is a
 relationship in

Thompson, et al.,
 (2016) <https://bit.ly/3PJKCW2>

Natural Mentoring

which one receives support from a pre-existing, non-parental individual. A systemic review found natural mentoring to be a protective factor for individuals ageing out of the child welfare system.

Parent/Caregiver Self-Care

Caregivers and parents of youth in foster care may face various stressors including but not limited to stressors related to the youth (i.e., educational and mental health), financial stressors, the child welfare system and relational and social stressors associated with biological family relationships (Miller et al., 2019). Due to the wide range of potential challenges, there is no one-size-fits-all approach to self-care for caregivers. Caregivers can explore various ways that refuel themselves.

Miller et al., (2019) <https://bit.ly/3S2yMYV>

Mentoring.org. (n.d.) *Self-care Assessment Worksheet*. <https://bit.ly/3OIX8DU>

Institutional Support

“Encouraging Prosocial Actions

An 11-day project that utilizes the

Greater Good in Education. (2022) <https://bit.ly/3PJVflu>

*in Students”
Project*

concept of community and reflection to foster support for students. Reflection on prosocial actions provides insight into how an individual’s actions affect others.

*Emotional
Competence
(EC)*

Self-
Control

*“Self-Distancing”
Perspective*

A self-distanced perspective allows an individual to navigate and make better sense of their reactions, experience less emotional distress, and increase in executive functioning (Eva, 2017).

Eva, A. L.
(2017) <https://bit.ly/3zfxC3x>

Empathy

*Trading Places
Worksheet*

15-20 minute activity that requires participants to go through 10-steps that allows them to engage in perspective taking or view things from a different perspective.

Sutton, J.
(n.d.) <https://bit.ly/3PX39Oq>

Emotional
Regulation

*Mindfulness-
Based Stress
Reduction
Exercises*

Engaging in mindfulness exercises can activate attention regulation, refine emotion regulation skills,

Schumer et al.,
(2018) <https://bit.ly/3OBvadm>

and increase the tolerance for negative emotions that may occur outside of an individual's control, ultimately reducing emotional reactivity. Duration of activity may vary.

Mastering Emotions Technique(MEMT, Yoga-based meditation)

Yoga can provide an outlet to relieve and reduce mental and physical stress. MEMT is a 10-step tool that can be utilized to positively affect emotional regulation, self-compassion, and mindfulness in college-aged adults. Steps include but are not limited to: prayer, recognition of thinking vs. feeling, the art of sublimation, etc.

Patel et al., (2018) <https://bit.ly/3cTgMQI>

Engaged Living (EL)

Gratitude

Gratitude Sessions

Expressing gratitude can reduce stress, prime optimistic thought patterns, and overall increase well-being and life satisfaction
Gratitude

Miller (2017) <https://bit.ly/2YYl416>

sessions serve as a time and space for individuals to express and reflect on their feelings of gratitude. Duration of activity may vary.

Zest

Finding the "Awe" in Everyday Experiences

Awe can be elicited through activities such as but not limited to; *listening to music, spending time outside/in nature, visiting awe-inspired repositories* (e.g., the zoo, museum, library, houses of worship, theaters, etc.) and more. Reflecting on awe-inspired experiences can have positive associations on an individual's psychological and psychological health, and prosocial behaviors.

Allen, S.

(2018) <https://bit.ly/30uRzRS>

Optimism

Brain Priming to Adopt Optimistic Point of View

Individuals can practice optimistic ways of thinking by shifting one's frame of mind when stressors occur, practicing self-compassion, practicing gratitude and avoiding comparison, and

Sanderson

(2019) <https://bit.ly/2mSdDH5>

choosing how much energy to spend on situations that occur.

Figures

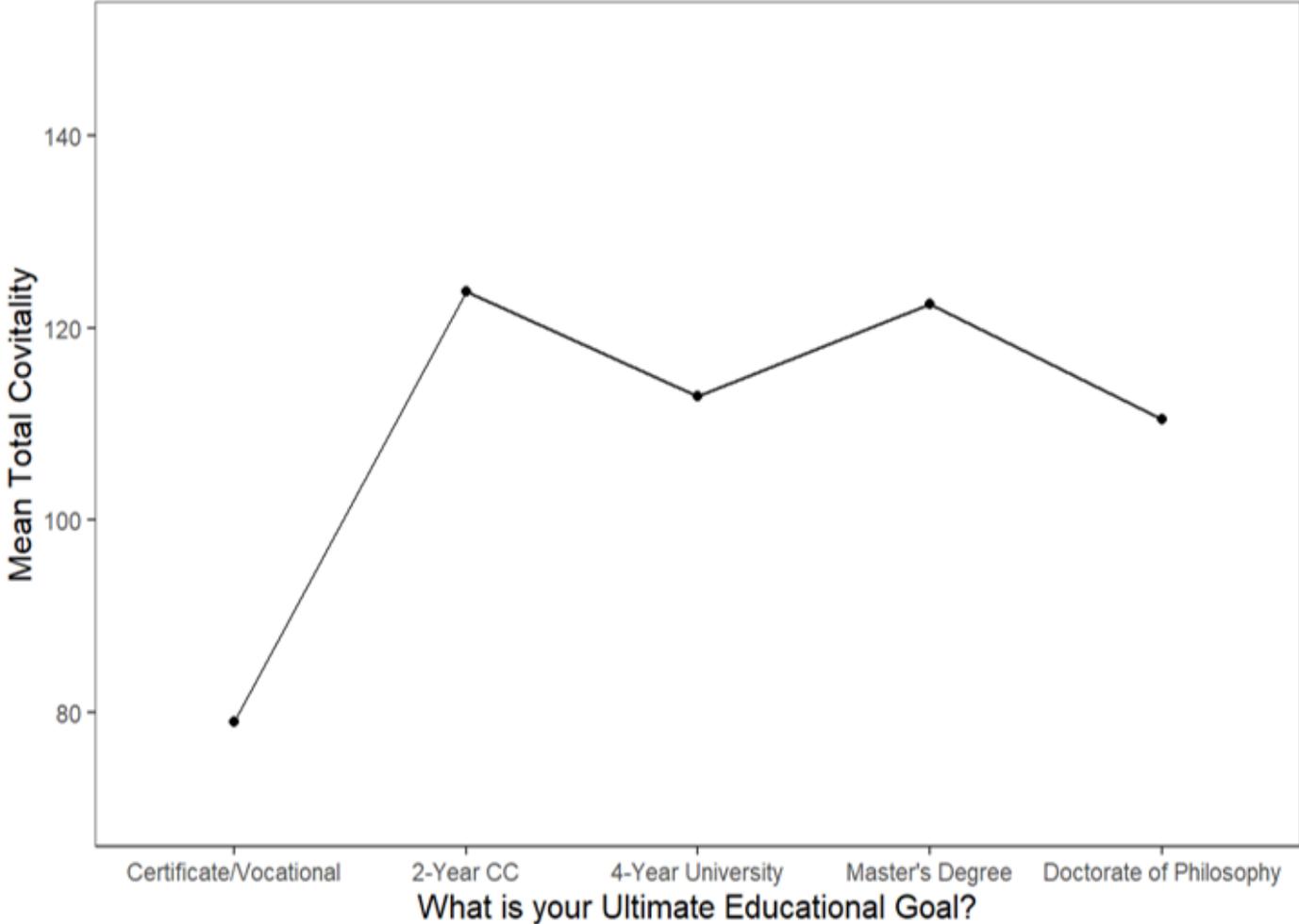


Figure 1

Mean Differences of Covitality by Ultimate Educational Goal for Wave One Participants

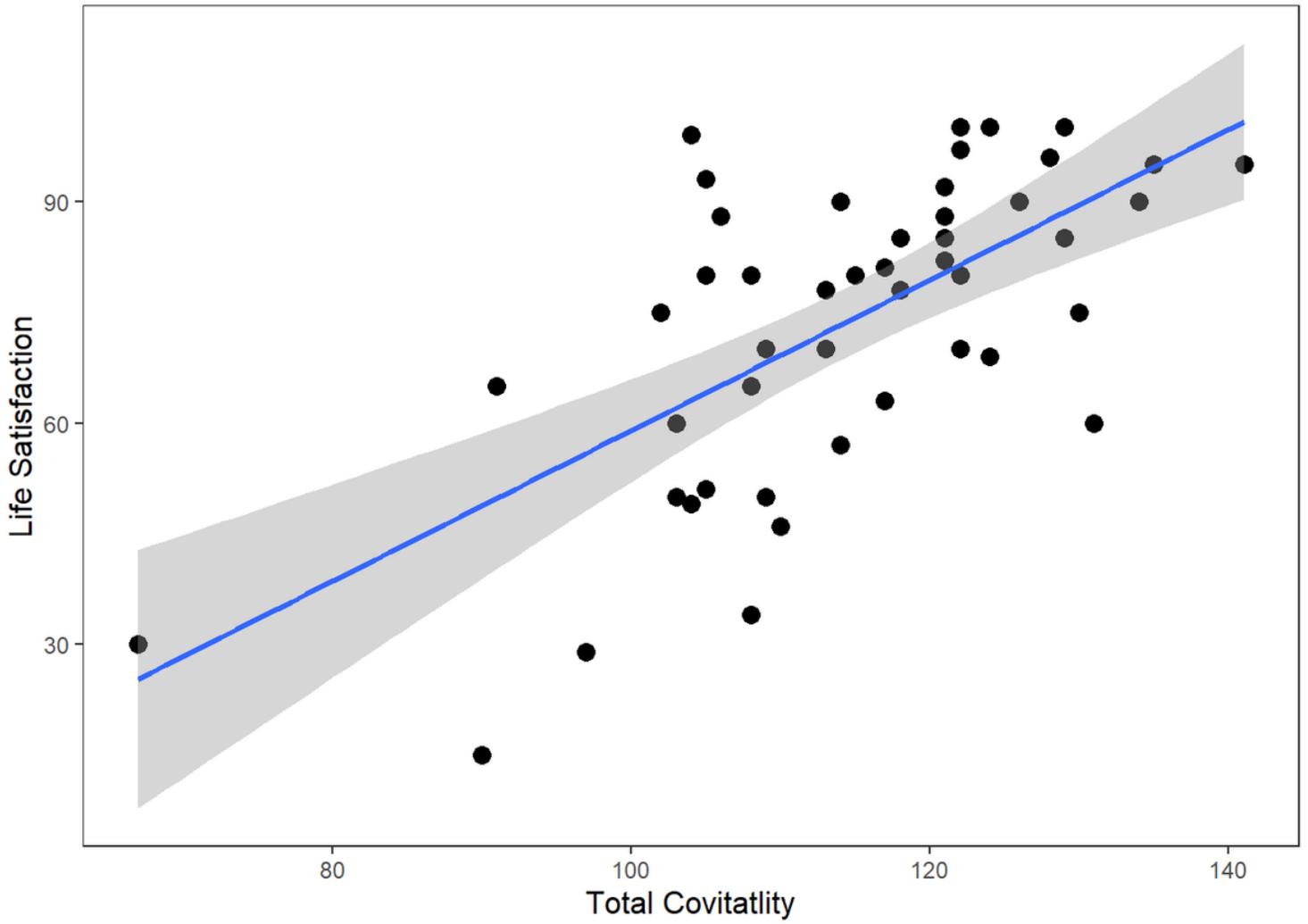


Figure 2

Scatterplot of Total Covitality and Life Satisfaction for Wave One Participants

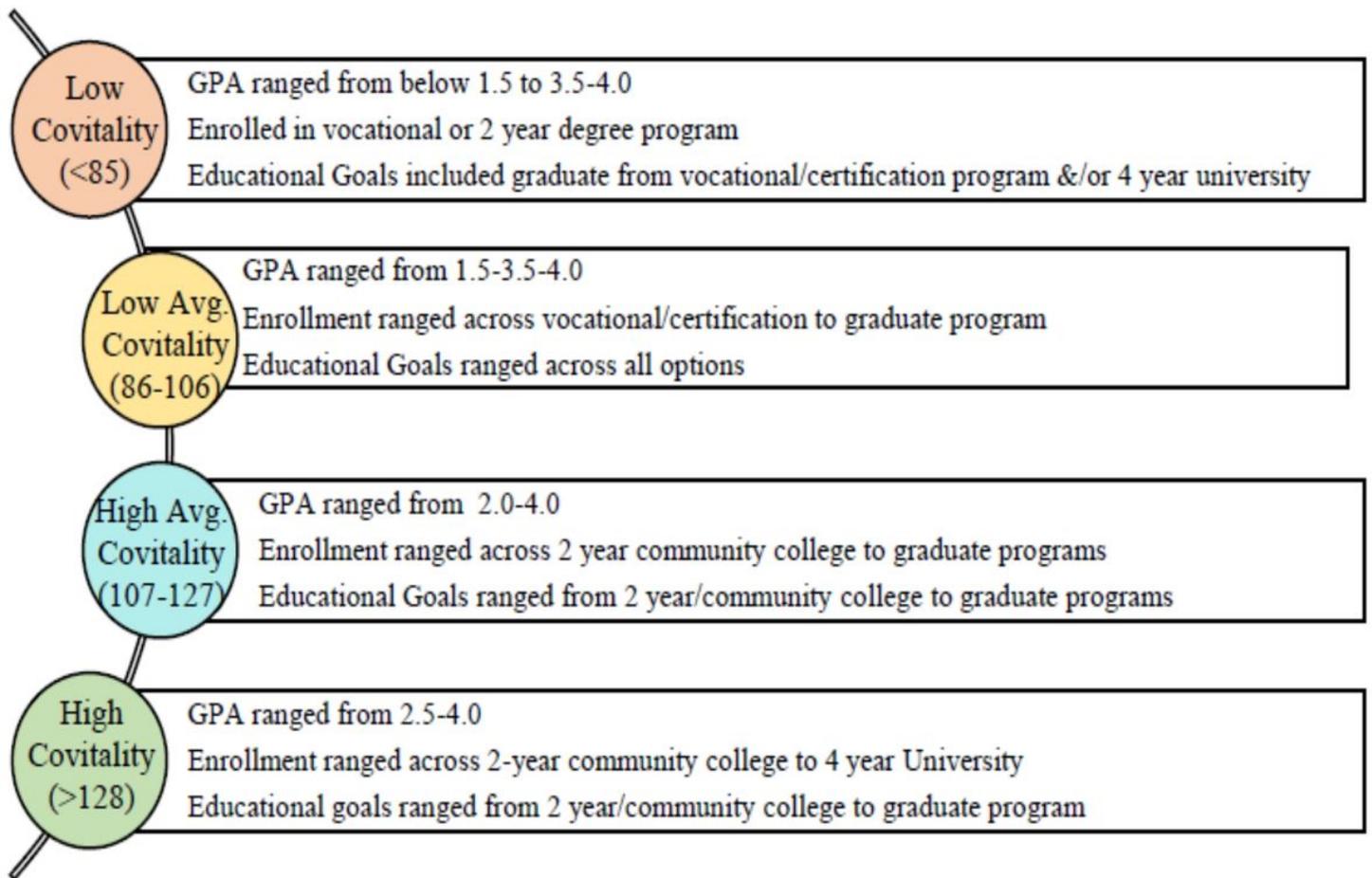


Figure 3

Patterns of Covitality for Wave One Participants