SUMMARY REPORT FOR:

Poly-victimization & Resilience Portfolios:
Advancing the Science of Resilience Following
Children's Exposure to Violence

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ABSTRACT

Objectives: The objective of this project was to use a mixed methods approach to expand the understanding of constructs important to resilience after children's exposure to violence (CEV), expand the range of outcomes examined, develop and refine measures appropriate for youth, and identify protective factors that could be targets for prevention and intervention.

Methods: Eight focus groups and 24 cognitive interviews were conducted with parents and youth to explore resilience constructs. These were followed by a survey completed by 440 youth ages 10 to 21 (average age 16.38, SD = 3.04), recruited from youth-serving organizations.

Results: Qualitative data revealed several constructs related to youth resilience that have received little to no prior research attention, including recovering positive affect, mattering, relational motivation, group connectedness, self-reliance, and family well-being. Psychometric analyses indicated that the new and refined measures have good to excellent reliability and validity. Almost 9 in 10 (89.3%) youth reported at least one victimization. Hierarchical regressions indicated that purpose, relational motivation, recovering positive affect, teacher engagement, and school climate were associated with higher subjective well-being (total $R^2 = .57$) after controlling for victimization, other adversities, and demographics. Purpose and relational motivation were associated with fewer trauma symptoms (total $R^2 = .33$), and mattering, future orientation, recovering positive affect, and social support received were associated with higher family well-being (total $R^2 = .44$). Purpose and recovering positive affect also contributed to better health-related quality of life (total $R^2 = .21$). In each of these analyses, the variance explained by protective factors was greater than the variance explained by adversities and demographics.

Implications: In this highly victimized sample of youth, many strengths were associated with improved outcomes for youth. Our refined and simplified measure of purpose performed the best, and many of the new constructs identified in the qualitative data showed promise as potential targets for future prevention and intervention, especially recovering positive affect and mattering. Other notable findings were that strengths generally accounted for similar or higher amounts of variance in our well-being indicators than did adversities, even though we replicated commonly observed links between higher CEV and poorer

psychological and physical functioning. Given this, these findings suggest that programs aimed at reducing the impact of CEV and other adversity could particularly benefit from focusing on developing a sense of purpose and other strengths and not just focusing on alleviating symptoms.

PURPOSE

Most children are exposed to violence, when peer, family, and community violence are all taken into consideration.[1] Two trends have shown promise in increasing our understanding of children's exposure to violence (CEV) and improving our capacity to prevent CEV and intervene more effectively when it does occur. The first trend is the recognition of poly-victimization, or the cumulative burden of different types of CEV.[2-4] A number of different lines of research, including research using the poly-victimization framework,[2-4] adverse childhood experiences (ACEs),[5] and complex trauma,[6] have shown that the cumulative victimization burden is a powerful correlate of mental and physical health symptoms. Poly-victimization research has been advanced by the introduction of the Juvenile Victimization Questionnaire (JVQ), which collects data on the full range of violence that youth experience.[7,8] The second trend is a surge in interest in resilience-focused, strengths-based approaches to understanding and helping children who have been exposed to violence. However, one key issue is the limited availability of a comprehensive range of strengths measures, especially for characteristics of families, schools, and communities. This project extended prior work to 1) expand and evaluate the key factors in children's resilience portfolios, 2) increase the number of outcomes studied beyond mental health symptoms and physical health to include subjective well-being, family well-being, and spiritual well-being, 3) develop psychometric characteristics for the component measures of the Resilience Portfolio Questionnaire, and 4) identify protective factors that could be targets for prevention and intervention. The findings detailed below on poly-victimization and resilience portfolios, funded by the National Institute of Justice, are from a mixed methods study of focus groups, interviews, and a survey of youth ages 10-21.

PARTICIPANTS

*Focus Groups***.** Seventy participants (65.7% female) who were recruited from youth-serving organizations in Tennessee, Georgia, and Mississippi participated in 8 focus groups (average 8 people per group) in May and June, 2016. There were 4 focus groups with adolescents ages 12 to 17 years (n = 18), and 4 with caregivers (n = 52). Most participants identified as European American/white (81.4%), followed by African American/black (14.3%), Latino (1.4%), Asian (1.4%), and multiracial (1.4%).

*Cognitive Interviews***.** Twenty-four participants, 79.2% female, completed in-depth semi-structured interviews that involved reviewing and commenting on constructs generated from the focus groups, including draft questionnaire items. Interviews were conducted in November and December, 2016 in Tennessee and Georgia. Of the cognitive interview participants, 12.5% were ages 10-12, 37.5% were ages 13-15, 4.2% were ages 16-17, 8.3% were ages 25-29, 20.8% were ages 30-39, 8.3% were ages 40-49, 4.2% were ages 50-59, and 4.2% were ages 60-69. The racial identities of the participants were 62.5% African American/black, 33% European American/white, 4.1% Latino and 4.1% American Indian.

Survey. Participants were 440 youth from four states in the Southern United States (AL, GA, MS, TN). Data were collected July, 2017—February, 2018. The sample ranged from 10 to 21 years of age (M = 16.38, SD = 3.04), and was 61.1% female. The sample identified as 69.9% White or European American (non-Latino), 17.1% Black or African American (non-Latino), 5.6% multiracial, 3.9% Latino, 1.9% American Indian or Alaska Native (non-Latino), and 1.6% Asian (non-Latino). In terms of residency, 33.6% reported living in a small town (population about 2,500-20,000), 27.4% reported living in a rural area (population under 2,500), 15% reported living in a smaller city (population about 100,000-300,000), 14.1% reported living in a town (population about 20,000-100,000), 7.4% reported living in a larger city (population over 300,000), and 2.5% reported living in a suburb of a large city. Over half (51.3%) of the sample reported receiving free or reduced lunches at school. Median household income for their county of residence (2016 data) is $47,713.40 ($SD$ = 11,635.61).

DESIGN AND METHODS

Participants were recruited through youth-serving organizations. For all phases, organizations received a stipend of $20 per participant. Informed consent, including parental consent for minors, was obtained for all participants. All procedures were approved by the University of New Hampshire IRB. For the focus groups and cognitive interviews, sessions were audiotaped and transcribed. For the survey, eight of our participants (1.6%) were excluded from the final sample because they reported not understanding most of the questions in the survey, and five participants (1.0%) were excluded from the final sample due to extreme responses (either responded ‘Mostly true about me’ or ‘Not true about me’ to all questions).

The overall completion rate was 92%. This is an excellent result by current survey standards, with some survey completion rates often under 70% and sometimes under 50%.[9,10] The survey was administered as a computer-assisted self-interview, using the SNAP11 software platform on computer tablets. On average, the survey took approximately 22 minutes to complete.

Measures

Development and validation of measures. Given that our sample included significant numbers of young adolescents, it was essential that the reading level be appropriate for all participants. Brevity was also a priority. As noted in the Introduction, another key goal of the study was to expand the number of protective factors assessed and to develop measures for constructs that might be most relevant for youth resilience. Toward this end, to enhance existing measures, additional measures were developed through a 3-stage mixed methods process, with common and salient strengths first identified in focus groups, then vetted in the cognitive interviews, and then refined and incorporated into the survey. Factor analysis in the main sample was also used for further clarifying of constructs. Validity was established with moderate correlations with related constructs, and was consistent with previous work on resilience portfolio measures (also see Table 2).[11] The final survey has a Flesch-Kincaid reading level of 5.3.

Unless specified, response categories were on a 4-point Likert scale with 1 denoting "Not true about me" and 4 denoting "Mostly true about me." Standardizing response categories across items reduces the respondent burden, shortens survey time, minimizes method variance, and is common for large scale community surveys.[12] Missing data were imputed based on responses to other items on same scale. In all cases, higher scores represent higher levels of strengths, psychological functioning, and adversity. Further details on each measure are below.

Adversities included three broad domains—interpersonal victimization, other adverse life events, and poverty. The *Juvenile Victimization Questionnaire (JVQ)—Key Domains Short Form* includes 10 items assessing lifetime history of a range of interpersonal victimizations adapted from the full JVQ.[9,10] A sample item is "During your childhood, did one of your parents threaten to hurt another parent and it seemed they might really get hurt?" Dichotomous items ("yes" or "no") were summed to create a total

victimization score. Alpha is .73 in this sample. *Adverse Life Events.* A 6-item scale, adapted from prior work[13] to better focus on youth, that measures several major life challenges that are not intentional victimizations. Responses were dichotomous, and "yes" answers were summed to create a total score. A sample item is "At any time in your life, has a family member or close friend died?" Because endorsing one event does not necessarily imply experiencing another event, no internal consistency is reported. *Poverty.* Because youth are unlikely to have detailed information on family income, we used two proxies for low income. One indicator was individual self-report of "Did you ever get free or reduced lunches at school?" Over half (51.3%) of the sample reported receiving free or reduced lunches at school. The second indicator was county income (obtained from the U.S. Census Bureau, https://www.census.gov/data/datasets/2016/demo/saipe/2016-state-and-county.html). Average median household income for participant's county of residence was $47,713.40 (*SD* = 11635.61) in 2016 (most recent information at time of data collection. This is lower than the $59,039 average for the U.S.

Regulatory strengths assess various aspects of self-control, especially when confronting difficulties. The *Psychological Endurance Scale* is a simplified, 5-item version of a measure[11] to assess one's ability to persevere despite challenges (internally consistency assessed by coefficient α = .69). A sample item is "When hard times come around, I face them head-on." *Recovering Positive Affect* is 6 items (α = .81) that assess the ability to return to a good mood after distress.[14] A sample item is "I can cheer myself up after a bad day." *Self-reliance* measures the ability to cope by using one's own resources (3 items, α = .81).[14] A sample item is "I like to solve problems on my own." *Impulse Control* assesses behavioral self-regulation (5 items, α = .63).[14] A sample item is "I stop to think before I act."

Meaning making strengths assess ways that individuals seek fulfilment, often by connecting to something larger than themselves. *Purpose* (6 items; α = .88) involves feeling like one has a sense of meaning in life and a reason for living. Adapted for youth[14] from an previous version.[11] A sample item is: "My values give my life meaning." *Mattering* (5 items; α = .86) measures the extent to which participants felt appreciated and valued by others.[14] Sample item: "I feel appreciated by my family and friends." *Future Orientation* (6 items; α = .79) measures the desire for self-improvement.[14] Sample item: "The

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choices I make today are important for my future." *Relational Motivation* (3 items; α = .70) refers to feeling inspired by important people in one's life.[14] Sample item: "I want the people in my life to be proud of me." *Religious Meaning-making* (6 items; α = .94) assesses the degree to which an individual's engagement in faith and religious/spiritual practices.[11,14] Sample item: "When dealing with a problem, I ask others to pray for me."

Interpersonal strengths include the participants' relational skills and also indicators of support from their larger social environment. *Community Support.* Six items assessing the degree to which one's neighbors get along and helps one another (α = .80).[15] A sample item is "People in my neighborhood offer help to one another." *Compassion* measures how people engage with others in a caring and helpful way (4 items, α = .80).[11] A sample item is "When others feel sad, I try to comfort them." *Group Connectedness* (6 items, α = .80) assesses feelings of closeness and support from peer groups.[14] A sample item is "I have belonged to a group or team with people who stand up for me." *School Climate* (6 items, α = .78) measures characteristics of healthy school environments, such as "My school building is in good condition."[14] *Social Support Received* (6 items, α = .80) assesses help or encouragement provided in times of distress.[14] A sample item is "Someone was there for me when I was having a hard time." *Social Support Seeking* (6 items, α = .89) assesses youth's efforts to attain help.[14] A sample item is "I talk to someone to help me solve problems." *Teacher Engagement* (5 items, α = .86) assesses youths' experiences with enthusiastic, caring teachers.[14] A sample item is "I had a teacher who wanted me to do well in school."

We defined "*poly-strengths*" as the total number of strengths each individual reported at above average levels (> .5 SD). In this sample, the range was from 0 to 16 (total number of protective factors we surveyed), with a mean of 6.85 (SD 4.13).

Several *outcomes* were examined, including psychological, physical, and spiritual. Thriving for each outcome was scored as ≥ .5 standard deviations above the standardized mean. We focused on thriving to emphasize the well-being end of the spectrum for these measures. Higher scores indicate better functioning. *Trauma Symptoms* (8 items, α = .91) assessed a range of feelings of dysphoria, anxiety, or

guilt.[14] A sample item is "Feeling worried or anxious in the last month." The scale was reverse-scored; higher scores indicate fewer symptoms. *Subjective Well-being* (7 items, α = .90) assesses general life satisfaction from a strengths-based perspective, versus the absence of mental health symptoms.[11,14] A sample item is "I feel really good about my life." *Health-related quality of life* (5 items, α = .64) is based on the CDC measure,[16] simplified and adapted for this sample to assess physical well-being. Sample item: "During the last month, for about how many days did your health stop you from doing your usual activities, like going to school or spending time with friends?" *Family Well-being* (7 items, α = .90) assessed the subjective well-being of one's immediate family and other relatives who live with the child.[14] Sample item: "My family is happy." *Spiritual Well-being* included both a *Theistic* subscale (5 items, α = .95) and a *Non-theistic* subscale (5 items, α = .82).[14] The Theistic subscale assesses well-being from a sense of god or similar higher power. A sample item is: "I feel better when I talk to God or a higher power." The Non-theistic subscale captures a similar sense of awe or well-being from less religious sources, such as connectedness to nature. A sample item is "I feel all living things are connected."

DATA ANALYSIS

For the qualitative data, we utilized grounded theory to identify under-recognized constructs of resilience from participants' own words.[17,18] Initially, the research team reviewed focus group transcripts, using participants' own words to develop a list of strengths that helped participants work through difficult times. In the second phase, these constructs were further refined and narrowed, and then draft survey items were written to capture them. Further refinement of resilience themes and operationalizations occurred in the cognitive interviews, which were also analyzed similarly. For the quantitative data, we conducted descriptive analyses (such as frequencies) and bivariate correlations. We used coefficient alpha, exploratory factor analysis, and correlation to establish the reliability and validity of scales. Hierarchical multiple regression was conducted to identify which strengths contributed most to each outcome, when considering other strengths and controlling for prior victimization, other adversities, age, and gender.

FINDINGS

Results from Qualitative Phase of Focus Groups and Interview

Qualitative data revealed several constructs related to youth resilience that have received little to no prior research attention, including recovering positive affect, mattering, relational motivation, group connectedness, self-reliance, and family well-being. For example, for relational motivation, one adolescent female stated, "*That's why I'm making good grades. I want them [the people in my life] to be proud of me and what I'm doing*." Youth also reported a clear distinction between social support seeking and whether they actually received social support. Many of their comments about social support focused on the specific help they had received, rather than general statements about making disclosures or having support available. For example, one girl said, *"[Adult at camp] helped me pick out what school, she helped me with my school because I was struggling between three different schools. She helped me with the pros and cons of everything and try to figure out what would be best for me financially in the long run and get a bunch of help so.... I mean she didn't have to, but she did*." As in many other examples, someone going above and beyond their formal duties often made the greatest impression on youth.

This adolescent male's story embodied group connectedness, relational motivation, endurance, and future orientation, illustrating his pathway to overcoming bullying in a way that is seldom captured in the research literature:

P: Like, back, back in the day, when I was, um, when I was a kid, I used to get picked on a lot. I was small, scrawny, and everybody just saw that I wasn't doing nothing, so, on in my life, I started trying to make myself a little bit bigger and a better person and I chose to do football and basketball, so now no one messes with me.

Interviewer: ....What about the team aspects of being on the football team? ...that was something that we were particularly interested to hear about since you all are on a team together.

P: Um, when we [the team] go through tough times, we had a rough season this year, and we got better. We knew then, from then on, these boys, you know, I stay on them [he's a team captain]. We stay on everybody and, um, we just work. Work, work, work. Like that right there [points to rest of the team in the weight room]. We're here from day in to day out, working, every day.

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The qualitative data also identified some challenges of surveying youth. For example, regarding non-theistic spiritual well-being, one adolescent boy responded to an item on getting a sense of well-being from connecting with nature this idea by saying that he didn't like connecting with nature. He said, "*Cause I usually get hurt outside, like when I run into a tree or if I run into other things or like, trip over stumps or fall and scrape my arm on concrete. I might just really get hurt outside*." These issues illustrated the need to define constructs in as simple and concrete terms as possible. The qualitative data helped us capture the vernacular of resilience for youth in these low-income communities.

Survey Results

See the Measures section for the psychometric characteristics of new and refined scales.

Rates of Victimization and Adversity

In this sample from low-income communities, the rates of children's exposure to violence were high, with almost 9 in 10 youth (89.3%) reporting at least one victimization experience in their lifetime (See Figure 1). Other types of non-victimization adversity, especially dealing with the death or serious illness of a friend or family member were even more common, with at least one type of adversity being reported by virtually every youth in their lifetime (99.5%).

Overview of Current Functioning

More than 4 in 5 (81.6%) participants reported some anxiety in the past month and more than 3 in 4 (77.3%) reported sadness in the past month. Despite the young age of the sample, fairly high percentages also reported diminished health-related quality of life. For example, more than half the sample (51.8%) reported that they had not been "healthy and full of energy" every day in the last month, while almost half (42.8%) reported that pain interfered with their activities at least once in the last 30 days. Approximately 1 in 8 (12.6%) reported that pain interfered with their daily activities more than half the month (See Table 1). Still, positive outcomes were also reported at high levels. For example, 65.7% agreed strongly with the statement that "I have a lot to be proud of." Over half (57.6%) said that it was mostly true that their family was happy.

Correlations

A correlation table for all variables in in Table 2. CEV was correlated with all outcomes except spiritual well-being, non-theistic, and was also correlated with several strengths. Most outcomes were correlated with numerous strengths.

Multivariate Analyses

A series of hierarchical multiple regressions were conducted. In Block 1 of each regression were entered age and gender of the youth. In Block 2, victimization, other adversities, and two indicators of economic status, whether the youth received free lunches at school and the median household income for the youth's county of residence. In the final block, the strengths were added. The predictors were a range of outcomes that covered different facets of well-being.

Subjective well-being. None of the demographic characteristics or adversities were significantly associated with subjective (psychological) well-being, although the overall block for adversities was significant and accounted for 10% of the variance, across all adversities, in subjective well-being. Several individual strengths were significant predictors of subjective well-being: purpose, relational motivation, recovering positive affect, teacher engagement, and school climate. Contrary to prediction, higher scores on group connectedness were associated with lower subjective well-being. Overall, the full model accounted for 57% of the variance in subjective well-being. See Table 3.

Mental health. Mental health was operationalized as low trauma symptoms (reverse-scored to be more comparable to other well-being indicators). Higher exposure to poly-victimization was significantly associated with poorer mental health. No other adversities were significant. Older youth were more likely to report poorer mental health than younger youth. Regarding strengths, purpose was the only significant predictor, although poly-strengths approached significance. Contrary to prediction, higher relational motivation was significantly associated with poorer mental health. The full model accounted for 33% of the variance in mental health (See Table 3).

Family well-being. Given how central family members are to youth's well-being, we developed a new measure of family well-being that is similar to the subjective well-being construct for individuals. Both higher CEV and receiving free lunches were significantly associated with poorer family well-being,

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and adversities accounted for a somewhat higher percentage of variance (18%) than for other well-being indicators. Several strengths were associated with better family well-being: Mattering, future orientation, recovering positive affect, and social support received. See Table 3.

Health-related quality of life (HRQOL). Even at this young age, children's exposure to violence (CEV) was significantly associated with poorer HRQOL. However, other adversities, income indicators, and demographic characteristics were not associated with HRQOL. Higher levels of two strengths, purpose and recovering positive affect, were significantly associated with better HRQOL. Unexpectedly, one variable, social support seeking, was associated with poorer HRQOL. It is possible that social support seeking is also capturing the severity of a youth's problems (see Table 4).

IMPLICATIONS

In this highly victimized sample of youth, many strengths were associated with improved outcomes for youth. Our refined and simplified measure of purpose performed the best, and many of the new constructs identified in the qualitative data showed promise as potential targets for future prevention and intervention, especially recovering positive affect and mattering. Other notable findings were that strengths generally accounted for similar or higher amounts of variance in our well-being indicators than did adversities, even though we replicated commonly observed links between higher CEV and poorer psychological and physical functioning.

The results of this study also point to the importance of more carefully operationalizing constructs and using language that is appropriate and meaningful for youth. Some interpersonal measures may inadvertently also be capturing the extent of problems a child is facing or the stresses of feeling obligated to others. In terms of future research, unpacking the "double-edged sword" of help-seeking or relationship burden versus the rewards of close relationships requires further study and attention to measurement. In terms of criminal justice implications, these findings suggest that programs aimed at reducing the impact of CEV and other adversity could particularly benefit from focusing on developing a sense of purpose and the capacity to not just control anger or distress but also the ability to get back in a good mood.

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Figure 1

Victimization Rates

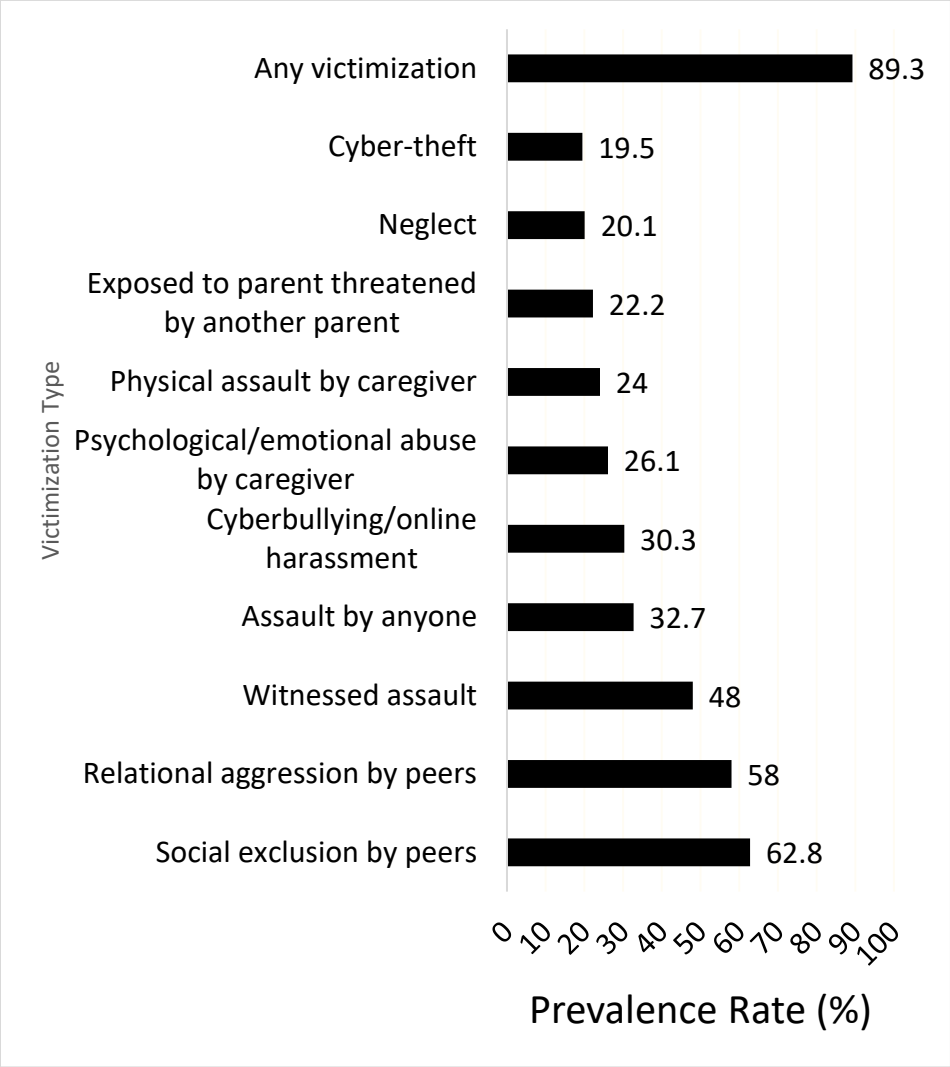

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Figure 2

Rates of Other Adversities (Non-victimizations)

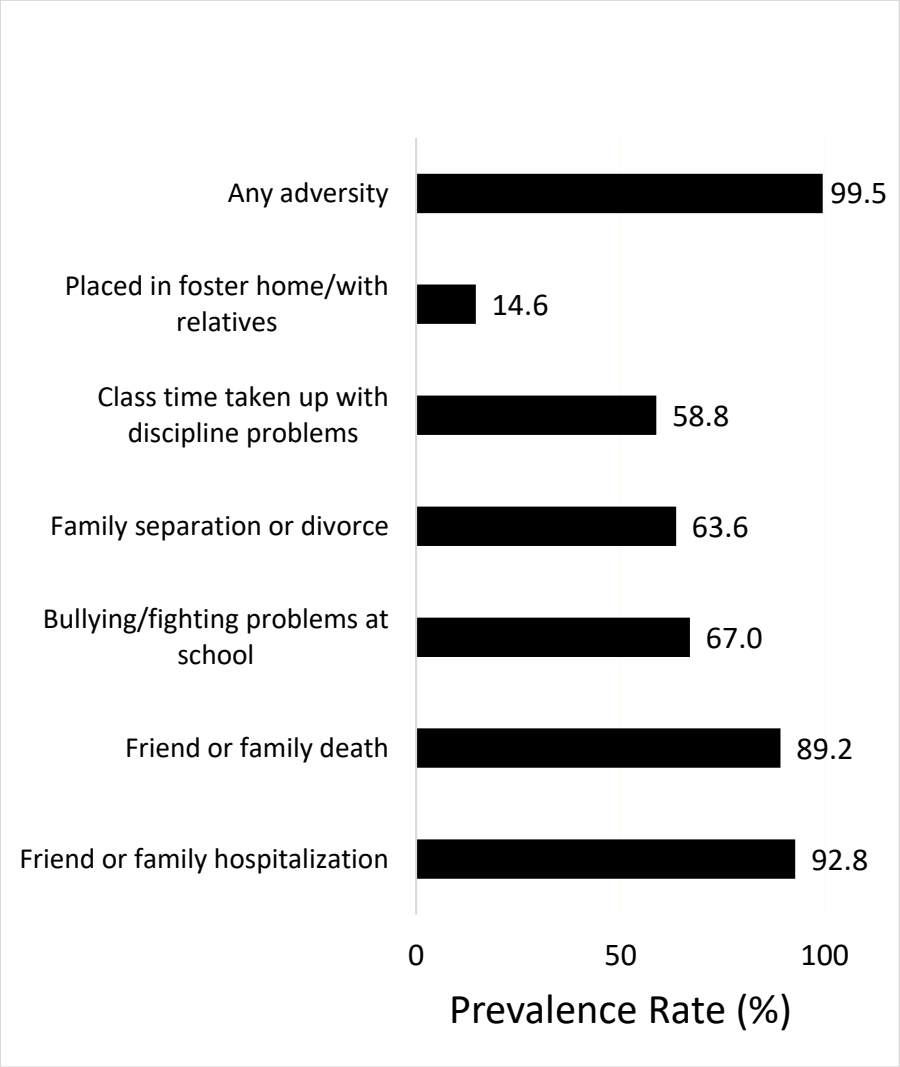

Table 1
Frequencies, Mean, and SD's of Items from Health-related Quality of Life Scale

	Excellent	Very good	Good	Fair	Poor	*M*	*SD*
1. Current health status	29.0%	37.8%	25.1%	6.5%	1.6%	3.86	.96

	Every day/almost every day	About 3 weeks	About 2 weeks	1 week or less	0 days	*M*	*SD*
2. Days health was not good	2.8%	5.5%	10.1%	38.9%	42.8%	4.13	.99
3. Days health stopped you from doing activities	1.8	2.3	5.1	29.2	61.6	4.46	.84
4. Days pain made it hard to do usual activities	3.4	2.5	6.7	30.1	57.2	4.35	.96
5. Days healthy and full of energy	48.2	17.7	14.0	12.2	8.0	3.88	1.35

Table 2
Correlations among study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. Subjective Well-being	--	**.57**	**.41**	**-.36**	**.43**	**.28**	*-.12*	-.09	**-.28**	-.04	-.02	**.41**	**.34**	**.57**	**.25**	**.44**	**.67**	**.71**	**.44**	**.40**	**.38**	**.28**	**.39**	**.45**	**.46**	**.42**	**.51**
2. Family Well-being		--	**.31**	**-.26**	**.27**	**.15**	**-.19**	**-.17**	**-.39**	.01	.05	**.32**	**.25**	**.41**	**.13**	**.32**	**.68**	**.49**	**.34**	**.28**	**.37**	**.30**	**.30**	**.33**	**.32**	**.30**	**.29**
3. HRQOL			--	**-.42**	**.21**	.04	-.08	-.01	**-.32**	.07	.03	**.27**	**.26**	**.32**	*.10*	**.25**	**.41**	**.37**	**.26**	**.19**	**.25**	**.15**	**.21**	**.23**	**.19**	**.14**	**.30**
4. Trauma Symptoms				--	-.09	.09	.00	*.12*	**.42**	-.06	.04	**-.17**	**-.17**	**-.32**	.04	*-.10*	**-.28**	**-.31**	-.03	-.08	-.09	.04	-.04	**-.15**	-.02	-.02	-.09
5. Spiritual Well-being Theistic					--	**.21**	-.04	-.10	**-.12**	.05	-.07	**.33**	**.16**	**.32**	**.21**	**.30**	**.37**	**.49**	**.32**	**.84**	**.29***	**.22**	**.34**	**.20**	**.37**	**.36**	**.30**
6. Spiritual Well-being Non-Theistic						--	.00	.06	.06	-.05	**-.13**	**.28**	**.18**	**.23**	**.23**	**.33**	**.24**	**.31**	**.25**	**.19**	**.14**	**.32**	**.25**	**.18**	**.27**	**.37**	**.26**
7. Free Lunch							--	**.16**	**.17**	*-.12*	**-.34**	-.03	**-.16**	-.05	-.01	*-.09*	**-.20**	*-.10*	**-.22**	-.02	**-.21**	**-.22**	-.06	**-.28**	*-.11*	**-.16**	**.20**
8. Parents Worry about Money								--	**.19**	.02	*-.12*	.05	-.01	.01	.05	.01	**-.15**	*-.12*	-.04	-.10	-.04	.06	-.02	-.03	*-.14*	-.04	.01
9. JVQ									--	-.01	.01	-.04	**-.22**	**-.21**	.03	-.08	**-.40**	**-.24**	**-.19**	*-.10*	**-.19**	-.05	**-.14**	**-.26**	*-.12*	*-.12*	**-.15**
10. Lifetime Experiences										--	.05	-.01	*.11*	-.03	.04	.02	.03	-.03	.03	.01	.04	.08	-.02	**.14**	-.01	.03	.06
11. County Household Income											--	-.04	.06	-.09	-.04	.08	*.10*	.00	*.11*	*-.11*	.01	**.13**	.08	.08	.07	.03	.05
12. Endurance												--	**.39**	**.47**	**.35**	**.50**	**.37**	**.49**	**.27**	**.40**	**.32**	**.30**	**.34**	**.28**	**.26**	**.33**	**.32**
13. Impulse Control													--	**.31**	**.27**	**.40**	**.35**	**.37**	**.37**	**.18**	**.29**	**.34**	**.25**	**.46**	**.27**	**.29**	**.37**
14. Recovering Positive Affect														--	**.27**	**.32**	**.47**	**.55**	**.31**	**.36**	**.31**	**.22**	**.30**	**.34**	**.27**	**.31**	**.31**
15. Self-reliance															--	**.26**	**.19**	**.22**	**.33**	**.21**	*.10*	**.27**	**.22**	**.25**	**.19**	**.20**	**.27**
16. Future Orientation																--	**.42**	**.53**	**.42**	**.34**	**.29**	**.44**	**.36**	**.29**	**.30**	**.41**	**.40**
17. Mattering																	--	**.70**	**.47**	**.37**	**.40**	**.37**	**.44**	**.46**	**.46**	**.41**	**.42**
18. Purpose																		--	**.43**	**.50**	**.36**	**.33**	**.45**	**.35**	**.44**	**.46**	**.44**
19. Relational Motivation																			--	**.32**	**.29**	**.46**	**.37**	**.39**	**.33**	**.37**	**.43**
20. Religious Meaning-making																				--	**.29**	**.22**	**.39**	**.19**	**.32**	**.33**	**.26**
21. Community Support																					--	**.34**	**.33**	**.34**	**.32**	**.32**	**.33**
22. Compassion																						--	**.26**	**.33**	**.27**	**.40**	**.37**
23. Group Connectedness																							--	**.29**	**.32**	**.33**	**.33**
24. School Climate																								--	**.32**	**.32**	**.51**
25. Social Support Received																									--	**.53**	**.39**
26. Social Support Seeking																										--	**.36**
27. Teacher Engagement																											--

HRQOL=Health-related quality of life; JVQ=Juvenile Victimization Questionnaire

Bold = p < .01; Italics = p < .05.

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Table 3
The associations of adversities and strengths with subjective well-being, trauma symptoms, and family well-being

	Subjective Well-Being		Mental Health		Family Well-being	
	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI
			Demographics			
Age	.86	.62 - 1.19	.73 *	.55 - .97	.87	.65 - 1.17
Gender	1.04	.76 - 1.41	1.00	.76 - 1.31	1.03	.77 - 1.37
R^2 Demographics Only	*.00*		*.02*		*.00*	
			Adversities			
Victimization (JVQ)	.89	.63 - 1.27	.48 ***	.35 - .66	.67 *	.48 - .92
Receive Free Lunches	.98	.71 - 1.36	1.14	.86 - 1.51	.65 **	.48 - .87
County Median Household Income	.95	.69 - 1.30	1.05	.79 - 1.41	1.07	.82 - 1.39
Other Adverse Life Experiences	.97	.72 - 1.31	1.18	.90 - 1.54	1.07	.81 - 1.41
ΔR^2 Adversities added	*.10* ***		*.15* ***		*.18* ***	
Poly-strengths	.97	.48 - 1.98	1.52†	.93 - 2.48	.60	.31 - 1.14
			Meaning Making Strengths			
Purpose	4.00 ***	2.10 - 7.62	2.31 *	1.38 - 3.87	1.28	.76 - 2.14
Mattering	1.12	.66 - 1.89	1.27	.80 - 2.01	3.13 ***	1.69 - 5.80
Future Orientation	1.39	.89 - 2.16	.93	.64 - 1.35	2.08 **	1.25 - 3.48
Relational Motivation	1.95 *	1.16 - 3.28	.68*	.48 - .96	1.17	.76 - 1.81
Religious Meaning Making	1.22	.87 - 1.71	.86	.63 - 1.17	1.00	.73 - 1.38
			Regulatory Strengths			
Recovering Positive Affect	1.70 *	1.13 - 2.55	1.30	.92 - 1.83	1.85 **	1.25 - 2.73
Endurance	.96	.64 - 1.44	1.28	.88 - 1.87	1.08	.74 - 1.58
Self-reliance	.81	.57 - 1.14	.82	.63 - 1.09	1.21	.88 - 1.66
Impulse Control	.80	.54 - 1.19	1.05	.76 - 1.46	.78	.55 - 1.10

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			Interpersonal Strengths			
Teacher Engagement	1.64 *	1.08 - 2.49	1.17	.82 - 1.66	1.04	.70 - 1.54
School Climate	1.61 *	1.08 - 2.40	1.10	.78 - 1.57	.88	.61 - 1.28
Social Support Received	1.09	.73 - 1.59	.80	.57 - 1.13	1.53 *	1.06 - 2.23
Social Support Seeking	1.36	.91 - 2.02	.81	.57 - 1.15	.86	.58 - 1.25
Community Support	1.21	.85 - 1.73	.82	.60 - 1.13	1.12	.80 - 1.55
Compassion	.70 †	.47 - 1.05	.75†	.53 - 1.05	1.14	.72 - 1.79
Group Connectedness	.66 *	.44 - 1.00	.79	.57 - 1.10	.89	.64 - 1.23
Δ R^2 Resilience Portfolio strengths added	*.47* ***		*.16* ***		*.26* ***	
Final R^2 Full Model	*.57*		*.33*		*.44*	

Note: Mental health was assessed as lower levels of trauma symptoms. † p < .10; * p < .05; ** p < .01; *** p < .001.

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Table 4
Hierarchical logistic regression of adversities and strengths as predictors of physical well-being

	Physical Well-being	
	Odds Ratio	95% CI
Age	.86	.66 - 1.12
Gender	.85	.66 - 1.10
R^2 Demographics Only	*.01*	
	Adversities	
Victimization (JVQ)	.69 *	.51 - .92
Other Adverse Life Experiences	1.13	.89 - 1.45
Receive Free Lunches	1.00	.77 - 1.31
County Median Household Income	1.01	.78 - 1.30
ΔR^2 Adversities Added	*.07* ***	
Poly-strengths	.92	.55 - 1.56
	Regulatory Strengths	
Recovering Positive Affect	1.46 *	1.05 - 2.04
Impulse Control	1.15	.84 - 1.58
Self-reliance	.97	.75 - 1.27
Endurance	.87	.62 - 1.22
	Meaning-making Strengths	
Purpose	1.57 *	1.02 - 2.43
Relational Accountability	1.28	.88 - 1.86
Future Orientation	1.07	.75 - 1.52
Religious Meaning-making	.92	.69 - 1.23
Mattering	.79	.53 - 1.19
	Interpersonal Strengths	
Teacher Engagement	1.31	.93 - 1.85
Community Support	1.26	.94 - 1.69
Social Support Received	1.16	.84 - 1.58
Compassion	1.09	.77 - 1.56
School Climate	.98	.70 - 1.36
Group Connectedness	.92	.69 - 1.23
Social Support Seeking	.72 *	.52 - 1.00
ΔR^2 Resilience Portfolio strengths added	*.14* ***	
Final R^2 Full Model	*.21*	

Note: * p < .05; *** p < .001.

APPENDIX A
LIST OF SCHOLARLY PRODUCTS

Manuscripts

Hamby, S., Taylor, E., Mitchell, K., Jones, L., Turner, H., & Newlin, C. (in progress). Health-related quality of life among adolescents as a function of victimization, other adversities, and strength.

Hamby, S., Taylor, E., Jones, L., Mitchell, K., Turner, H., & Newlin, C. (in progress). Resilience portfolios in adolescence: Identifying strengths that contribute to thriving after victimization.

Hamby, S., Taylor, E., Jones, L., Mitchell, K., Turner, H., & Newlin, C. (in progress). The vernacular of resilience among youth in the southern United States.

Hamby, S., Taylor, E., Mitchell, K., Jones, L., Turner, H., & Newlin, C. (in progress). Is it better to seek or to receive? How social support contributes to resilience.

Hamby, S., Taylor, E., Mitchell, K., Jones, L., Turner, H., & Newlin, C. (in progress). Age, gender, and racial differences in youth resilience.

Hamby, S., Taylor, E., Jones, L., Mitchell, K., Turner, H., & Newlin, C. (in progress). Youth victimization, spiritual well-being, and resilience.

Mitchell, K., Hamby, S., Taylor, E., Jones, L., Turner, H., & Newlin, C. (in progress). Peer victimization: The importance of a positive school climate in understanding trauma likelihood of trauma symptomatology.

Presentations

Dinwiddie, M., Hamby, S., Taylor, E., Mitchell, K., Turner, H., Jones, L., & Newlin, C. *Age patterns in different domains of well-being across the social ecology.* (2018, August). Presented at the American Psychological Association Annual Convention, San Francisco, CA.

Hamby, S., Taylor, E., Dinwiddie, M., Turner, H., Mitchell, K., Jones, L., & Newlin, C. (2018, August). *Resilience among youth: Exploring key strengths to promote well-being despite adversity*. Presented at the American Psychological Association Annual Convention, San Francisco, CA.

Taylor, E., Hamby, S., Dinwiddie, M., Mitchell, K., Turner, H., Jones, L., & Newlin, C. (2018, August). *Age & gender differences in meaning making among Appalachian youth*. Presented at the American Psychological Association Annual Convention, San Francisco, CA.

Hamby, S., Taylor, E., Smith, A., & Shalun, A., Newlin, C., Jones, L., & Mitchell, K., & Turner, H. (2017, August). *Resilience portfolios: Re-conceptualizing the measurement of strengths*. Presented at the American Psychological Association Annual Convention, Washington, D.C.

Smith, A., Taylor, E., Blount, Z., Jones, L., & Mitchell, K., & Newlin, C., & Hamby, S. (2017, August). *Communicating with youth about regulatory strengths.* Presented at the American Psychological Association Annual Convention, Washington, D.C.

Shalun, A., Smith, A., Mitchell, K., Jones, L., Newlin, C., & Hamby, S. (2017, March). *Relational accountability: An understudied aspect of social support.* Presented at the Southeastern Psychological Association meeting, Atlanta, GA.

Smith, A., Jones, L., Mitchell, K., Newlin, C., & Hamby, S. (2017, March). *"Netflix and cope": Down time as a potential form of coping and self-regulation*. Presented at the Southeastern Psychological Association meeting, Atlanta, GA.

Taylor, E., Jones, L., Mitchell, K., Newlin, C., & Hamby, S. (2017, March). *"Talking it out": Motivations for narrative self-disclosure*. Presented at the Southeastern Psychological Association meeting, Atlanta, GA.