Stabbetorp, T., Vederhus, R., Vrdoljak, G., Babić Čikeš, A., Kurtović, A., & Hirnstein, M. (2024). Lack of Important Developmental Assets Makes Youth More Susceptible to Worrying About Their Future. In N. Wiium, D. Manrique-Millones, D. Miconi, & D. Stefenel (Eds.), *Addressing Social Justice: A Positive Youth Development Approach* (pp. 157–181). Fagbokforlaget.
https://doi.org/10.55669/oa311007

Chapter 7

Lack of Important Developmental Assets Makes Youth More Susceptible to Worrying about Their Future

Tine Stabbetorp,[1,*] Rebecca Vederhus,[1] Gabrijela Vrdoljak,[2] Ana Babić Čikeš,[2] Ana Kurtović,[2] and Marina Hirnstein[1]

[1] Faculty of Psychology, University of Bergen, Norway
[2] Department of Psychology, Faculty of Humanities and Social Sciences, J. J. Stockmeyer University of Osijek, Croatia
[*] Corresponding author: Tine.Stabbetorp@student.uib.no

Abstract: The present study adopts a positive youth development approach, and particularly Benson's developmental assets framework, to investigate the relationship between developmental assets and worries about future education, employment, loneliness, and social status among youths in different educational stages. In addition, we investigate differences in these relationships between high-school and university students. Data were collected using a convenience sample of high-school (N = 424; 233 girls; M_{age} = 16.8, SD = 1.21) and university students (N = 304; 216 girls; M_{age} = 20.7, SD = 1.27) in Croatia. Presence of higher levels of developmental assets was significantly related to lower levels of future worries in youth. The internal asset *positive identity* was significantly associated with worries about the future, especially among high school students. The internal developmental assets *commitment to learning*, and *social competencies* showed differential associations with different worries in high school and university students. Out of the external developmental assets, only *support* was statistically significantly associated with worries, particularly with worrying about academic achievement and loneliness. Results also indicate that gender explains a small proportion of variance in worries, with girls reporting higher levels of future worries, as well as higher levels of developmental assets. The findings suggest that a lack of important developmental assets can make youths more susceptible to worrying, and that intervention strategies to reduce worries may be more successful when focusing on internal assets rather than external assets.

Keywords: Positive youth development, developmental assets, worry, education level, gender

Introduction

Youth is a developmental period filled with challenging experiences, such as the transition from middle school to high school and from high school to higher education and work-life (Salmela-Aro et al., 2010); simultaneously, youths need to learn to manage norms and expectations from family, peers, school, and others in their environments. This can lead youths to worry about their future, which may impact their academic performance (Keogh et al., 2004; Owens et al., 2012; Wells, 2002), mood (McLaughlin et al., 2007; Borkovec et al., 1983), mental health (Brown et al., 2006; Visla et al., 2022), and engagement in risk behaviors (Arbel et al., 2018). Borkovec and colleagues (1983) define worry as a chain of relatively uncontrollable, negatively affect-laden thoughts and images about uncertain future events that have possible negative outcomes. Considering the devastating consequences of excessive or prolonged worrying, it is important to investigate what youths worry about, what factors affect worrying, and what resources can lessen worrying. Some evidence suggests that the most common worries youths have concern academic achievement, social relations, and appearance, and the most common coping strategies are support from family and peers, and distraction (de Matos et al., 2013).

Girls tend to worry more than boys (McLean et al., 2021; Robichaud et al., 2003; for an additional overview see Cartwright-Hatton, 2006), and older youths worry more than younger youths (Brown et al., 2006; Vesla et al., 2022). Prior research has suggested an association between increased age, cognitive development, and heightened worry (Muris et al., 2002). Moving through educational stages, students become more aware of the choices and responsibilities they have. When moving from high school to higher education, many students leave home and start living on their own or with peers and may therefore take temporary jobs. This might make future worries about academic achievement, a potential culprit for future employment and economic status, more salient. High school students who want to continue their education might also worry about their academic achievement, as well as about being lonely or getting into bad company due to not being included in supportive or beneficial peer groups in school or other contexts.

Developmental Assets and Worry

To investigate the resources that youths have, we used a positive youth development (PYD) perspective that focuses on youths' strengths and opportunities. More specifically, we looked at Benson's Developmental Assets (DAs) Framework (2007). DAs refer to resources in youths and their environments that contribute to PYD. Within this framework are 40 DAs that are grouped into four external and four internal DA categories. External DAs are resources in different aspects of youths' environments and contexts of life, including relationships, supports, and opportunities, and are grouped into the following categories: 1. *Support* (Youth being surrounded by people who love, care for, appreciate, and accept them), 2. *Empowerment* (Youth feeling valued and valuable, through feeling safe and respected.), 3. *Expectations and boundaries* (Youth having clear rules, consistent consequences for breaking rules, and encouragement to do their best), and 4. *Constructive use of time* (Youth having opportunities to learn and develop new skills and interests with other youths and adults). Internal DAs are youths' personal resources, which include their values, skills, and commitments and are grouped into the following four categories: 1. *Commitment to learning* (Youth having a sense of the lasting importance of learning and believing in their abilities), 2. *Positive values* (Youth having strong values or principles to guide them in making healthy life choices.), 3. *Social competencies* (Youth having the skills needed for effective interactions with others, making difficult decisions, and coping with new situations), and 4. *Positive identity* (Youth believing in their self-worth and feeling in control over the things that happen to them) (Leffert et al., 1998).

The DA category *support* may be closely related to the degree of worry in youths, as Brown and colleagues (2006) found that positive parental contact can reduce worry in youths, and Duchesne and colleagues (2009) found a negative relationship between youths' attachment to their mother and worry during their transition from primary school to secondary school. Social support from parents and others is also related to good or improved mental health in youth (Camara et al., 2017) which is linked to less worry (Brown et al., 2006; Visla et al., 2022). This indicates that external DAs, particularly the *support* category, may be negatively related to worry. Feeling supported by parents is often accompanied by feelings of being respected, which can make youths feel empowered. The DA category *empowerment* also includes feeling safe in the neighborhood, at school, and at home, which can also reduce worrying in

youth. According to Cupid and colleagues (2021), youths who report feeling unsafe in their environments tend to worry more, indicating a possible correlation between the DAs in the category *empowerment* and worry. Furthermore, feeling that the family and teachers believe in youths' competencies through clear expectations can also reduce how much youths worry about their future. Saw and colleagues (2011) found that youths who feel like they are living up to their parents' expectations worry less. This shows that the DA category *expectations and boundaries* might also be related to worry.

The DA categories *support*, *empowerment*, and *expectations and boundaries* conceptually overlap in part with the concept of autonomy support from the self-determination theory, and research has shown that autonomy support is positively associated with adolescents' mental well-being through adolescents' internal resources, referred to as identity capital (Oliviera et al, 2014). Tikkanen (2016) found a relationship between identity capital and future worry. Identity capital conceptually overlaps with the internal DA category *positive identity*, which indicates that *positive identity* might also have a strong relationship with worry. Identity capital refers to the tangible and intangible resources that provide the individual with a developmental advantage in society (Côté, 1996). Tangible identity capital includes socially visible resources such as financial capital, education, and the family's socioeconomic status. Intangible identity capital includes personality traits like a sense of purpose, self-esteem, internal locus of control, and self-efficacy (Côté, 1996, 1997), which overlap with the internal DA category *positive identity*. Besides *positive identity*, other internal DAs are also conceptually close to identity capital and are therefore potential predictors of future worry. For example, Ergene (2011) found a relationship between worrying about test performance and study habits, which is similar to DAs in the category *commitment to learning*. The assumption that *commitment to learning* is negatively related to worrying is also based on previous research that found a relationship between school connectedness and a positive view of life and the future (Crespo et al., 2013). Romppanen et al. (2021) have shown significant longitudinal relationships between adolescent *social competence* and internalizing symptoms in young adulthood. Furthermore, Gomez-Baya et al. (2022) investigated the relationship between DAs and anxiety symptoms in university students in Spain and found that anxiety symptoms were negatively related to *positive identity*, but positively related to *positive values* in female students.

Although the relationship between youths' DAs and future worry has not, to our knowledge, been investigated in the past, research on similar concepts such as identity capital, parental support, study habits, feelings of safety, and parents' expectations suggest that these variables might be associated. Finding ways to reduce and prevent worry in youth can improve developmental outcomes, and DAs may contribute to this. This study examines possible associations between DAs and worries in youth, and how these associations may differ across genders and educational stages (high school vs. university). Specifically, we formulated the following research questions:

1. Are youths' reports of internal and external DAs associated with self-reported degrees of worry?
2. Are internal and external DAs and degree of worry related to youths' gender and educational stage?
3. Do associations between DAs and worry differ across educational stages?
4. Are different DAs associated with different domains of worry?

According to previous research, higher levels of support from family and friends are related to youths' identity capital, namely their self-efficacy, sense of purpose, self-esteem, and internal locus of control (Brown et al, 2006; Oliviera et al, 2014; Tikkanen, 2016), which overlap with internal DAs, particularly *positive identity*. Previous research has also indicated that worrying in youth might be associated with the DA categories *positive identity* (e.g. Tikkanen, 2016), *commitment to learning* (Crespo et al., 2013), *social competencies* (Romppanen et al., 2021), *positive values* (Gomez-Baya et al., 2022), *support* (Brown et al., 2006), *empowerment* (Cupid et al., 2021), and *expectations and boundaries* (Saw et al., 2011). Therefore, we expect to find negative associations between DAs and worry (hypothesis 1). Furthermore, in line with previous research (McLean et al., 2021; Robichaud et al., 2003; for an additional overview see Cartwright-Hatton, 2006), we expect to find higher degrees of worry in university than in high school students (hypothesis 2). Lastly, because older youths tend to have fewer DAs (Benson, 1990) and worry more than younger youths (Brown et al., 2006; Visla et al., 2022), but are also in a developmental stage closer to adulthood with its related responsibilities, we expect that different DAs will affect the degree and domain of worry of university students compared to high school students (hypothesis 3).

Since previous studies have found gender differences in DAs, as well as that girls worry more than boys (e.g., Gomez-Baya et al., 2022), we will control for gender in the regression analyses. The fourth research question regarding DAs being differentially related to different domains of worry is exploratory and no specific hypotheses are formulated.

Methods

The data presented here are part of a larger study conducted within the "Cross-National Project on PYD" (Wiium & Dimitrova, 2019). This project aims to investigate to what degree DAs are available to youths and whether these DAs are associated with multiple indicators of PYD, risk behaviors, and academic achievement (Wiium & Dimitrova, 2019). The study was approved by the Ethics Committee of the Faculty of Humanities and Social Sciences in Osijek (class: 602-04/18-01/29, number: 2158-83-02-18-2) and the Norwegian Centre for Research Data (NSD, now SIKT; approval number 51708 / 3 / IJJ).

Sample and Procedure

Youths aged 15–27 (N = 728; 449 girls) participated in the study (M_{age} = 18.4, SD = 2.29). A total of 424 participants were enrolled in high school (233 girls; M_{age} = 16.8, SD = 1.21) and 304 in university (216 girls; M_{age} = 20.7, SD = 1.27). There was a higher proportion of girls in the university sample compared to the high school sample. Participants were selected through convenience sampling by sending invitations to join the study to different schools and faculties in East Croatia. Five public high schools as well as four faculties from one university agreed to participate. The participants were informed that participation was anonymous and voluntary and that they could quit at any time without facing consequences. Information about the purpose and potential benefits and downsides of the study was provided and consent was collected before beginning the questionnaires. The participants filled out the questionnaire on paper during a 45-minute-long class under the supervision of one of the members of the research team and with a responsible teacher in the vicinity.

Measures

The questionnaire contained sociodemographic variables, such as gender, as well as validated questionnaires that measure DAs, and worries. These scales were part of a larger questionnaire that contained scales related to the overall topic of PYD. The questions were translated from the original English version using back translation by independent translators, and were pilot-tested by 30 Croatian university students who gave verbal feedback about their understanding to ensure correct translation and understanding of the Croatian version of the questionnaire.

The questions about worry were developed by Tikkanen (2016) for the GOETE (Governance of Educational Trajectories in Europe) research project. The worry scale consisted of questions where students had to indicate how often they worry about the following situations happening to them in the future: 1) *inability to find employment*, 2) *doing badly at school or further education*, 3) *getting into bad company*, 4) *being lonely*, and 5) *being poor*, all on a five-point Likert scale containing the options *1 = "Never or almost never", 2 = "Rarely", 3 = "Sometimes", 4 = "Often"*, and *5 = "Always"*. In the study by Tikkanen (2016) on 14- and 15-year-old students from urban schools in Finland, the five-factor structure has been validated using confirmatory factor analysis, and Cronbach's α of the five-item scale was .78. A sixth question addressing worry about climate change was added to the original worry scale, but has been excluded from this analysis because excluding the item about climate change increased the internal consistency of the scale from Cronbach's α of .70 to .74.

The 58 questions concerning DAs were items from DA Profile (DAP), based on Benson's DAs (Search Institute, 2016). These items are divided into four subscales measuring internal DAs: *commitment to learning* (α =.72), *positive values* (α =.77), *social competencies* (α =.66), and *positive identity* (α =.80), and four subscales relating to external DAs: *support* (α =.77), *empowerment* (α =.65), *expectations and boundaries* (α =.74), and *constructive use of time* (α =.46). The participants reported how much they had experienced each DA in the past six months on a four-point Likert scale containing the options *1 = "Not at all or rarely", 2 = "Somewhat or sometimes", 3 = "Very or often", and 4 = "Extremely or almost always"*. The subscale *constructive use of time* has shown low reliability across diverse samples (Scales, 2011; Wiium et al., 2019). That was attributed to a wide variety of behaviors that constitute the subscale,

which makes low internal consistency unsurprising. Despite the low internal consistency in previous studies, this subscale has been kept in the overall DA scale because of its theoretical background within the DA framework.

Statistical Analyses

The data were analyzed using IBM® SPSS® Statistics (Version 25.0; IBM Corp., 2017). We report means, standard deviations, ranges, and a bivariate Pearson correlation analysis on variables of interest in our sample at the descriptive level. To control for possible effects of confounding variables and investigate the relationship between DA categories classified as independent variables and worry classified as the dependent variable, we used multiple hierarchical regression analyses, with separate analyses for each of the five domains of worry in addition to one for the total scale on the worry scale. Gender was coded with the values 1 = boy and 2 = girl, and educational stage was coded 1 = high school and 2 = university.

Results

Descriptive Statistics

Table 7.1 shows the descriptive statistics for age, gender, DAs, and worry, including skewness and kurtosis as indicators for distribution normality. On average, youths reported low levels of worry, although the large intervals observed via standard deviations indicate some variability in the sample. In general, at the descriptive level, the youths worried most about *inability to find employment* and least about *getting into bad company*. University students worried most about *inability to find employment* while youths in high school worried most about *doing badly at school or further education*.

Before performing further analyses on our dependent variable, we calculated intraclass correlation coefficient (ICC) to determine if there was substantial clustering of observations on the level of schools and faculties that would call for using multilevel analyses. The ICC was 0.002, showing that a very small proportion of variation (0.2%) in worry scores lies between schools and faculties.

Correlation Analysis for the Whole Sample

We implemented a correlation analysis on the variables *gender, educational stage,* DAs, and a total score for worry on the whole sample (Table 7.2). All correlations between DAs and overall worry were negative, indicating that higher levels of DAs are associated with lower degrees of worry. *Positive identity* was the only DA category that had a moderate correlation with worry. The other significant correlations were small.

Gender was positively correlated with worry, meaning that girls reported higher levels of worry than boys. This showed that there is a need need to control for gender in the regression analyses. Gender was significantly related to DAs commitment to learning, positive values, social competencies, and expectations and boundaries, with girls reporting higher scores than boys. Gender was also related to positive identity, with boys reporting significantly higher scores than girls. Educational stage had a low but significant correlation with DAs *commitment to learning*, *support*, and *empowerment*, with youths in university reporting slightly higher levels of these DAs than youths in high school.

Regression Analysis for the Whole Sample

The hierarchical regression analysis for the total sample (Table 7.3) showed differential associations between each DA category and each domain of worry as well as with the total score on the worry scale. In model 1 the analysis controlled for the effects of *gender* and *educational stage*, which explained 3% of the variance in total score on the worry scale. Model 2 showed that DAs explained an additional 20% of the variance in the total score of the worry scale.

Out of the predictor variables included in the regression analysis with total score in worry as an outcome, *positive identity* and *gender* were the only ones that were statistically significantly associated with our outcome.

In separate regression analyses for each domain of worry, regression coefficient for *positive identity* was statistically significant. In addition, *social competencies* were significantly associated with worry about *inability to find employment*. Higher level of *commitment to learning* was significantly associated with lower levels of worry about *doing badly at school or further education.* Worrying about *being poor* was significantly associated with *commitment to learning*, *support*, and *empowerment*.

Table 7.1 *Descriptive Statistics for Gender, Age, DAs, and Worry.*

			High school (n = 424)				University (n = 304)			Whole sample (n = 728)		
	M (SD)	Achieved range	Skew-ness	Kurtosis	*M (SD)*	Achieved range	Skew-ness	Kurtosis	*M (SD)*	Achieved range	Skew-ness	Kurtosis
Age	16.78 (1.21)	15–19	-0.37	-1.23	20.70 (1.27)	19–27	1.65	4.17	18.41 (2.29)	15–27	0.32	-0.28
Gender	1.55 (0.5)	1–2	-0.21	-1.97	1.71 (0.45)	1–2	-0.93	-1.14	1.62 (0.49)	1–2	-0.49	-1.77
Internal DA												
Commitment to learning	4.52 (1.53)	0–7	-0.46	-0.14	5.27 (1.33)	0–7	-0.94	1.30	4.83 (1.50)	0–7	-0.65	0.19
Positive values	8.42 (2)	1–11	-0.78	0.37	8.41 (1.72)	2–11	-0.54	0.05	8.42 (1.89)	1–11	-0.71	0.34
Social compe-tencies	6.21 (1.65)	1–8	-0.90	0.24	6.48 (1.45)	2–8	-0.78	-0.15	6.32 (1.57)	1–8	-0.89	0.22
Positive identity	4.51 (1.62)	0–6	-1.10	0.45	4.50 (1.58)	0–6	-1.06	0.48	4.51 (1.6)	0–6	-1.08	0.45
External DA												
Support	5.49 (1.38)	0–7	-1.14	1.38	5.75 (1.23)	0–7	-1.27	2.20	5.60 (1.33)	0–7	-1.20	1.69

Empowerment	5.10 (1.12)	1–6	-1.23	0.87	5.35 (1)	0–6	-1.82	3.78	5.20 (1.08)	0–6	-1.44	1.75
Expectations and boundaries	6.67 (1.79)	2–9	-0.50	-0.53	6.98 (1.74)	1–9	-0.74	-0.15	6.80 (1.77)	1–9	-0.59	-0.41
Constructive use of time	1.89 (1.1)	0–4	0.20	-0.65	1.69 (1.04)	0–4	0.44	-0.51	1.81 (1.08)	0–4	0.29	-0.62
Worry (overall)	11.75 (3.98)	5–25	0.30	-0.15	11.72 (3.54)	5–25	0.48	0.48	11.73 (3.8)	5–25	0.36	0.08
Inability to find employment	2.73 (1.17)	1–5	0.15	-0.74	3.02 (1.13)	1–5	-0.12	-0.66	2.85 (1.16)	1–5	0.03	-0.75
Doing badly in school or further education	2.79 (1.17)	1–5	0.11	-0.84	2.63 (1.05)	1–5	0.31	-0.37	2.72 (1.13)	1–5	0.2	-0.68
Getting into bad company	1.77 (0.94)	1–5	1.37	1.80	1.52 (0.74)	1–5	1.63	3.03	1.66 (0.87)	1–5	1.51	2.41
Being lonely	2.42 (1.22)	1–5	0.47	-0.80	2.38 (1.11)	1–5	0.54	-0.34	2.40 (1.18)	1–5	0.50	-0.63
Being poor	2.07 (1.07)	1–5	0.82	-0.02	2.17 (1.01)	1–5	0.84	0.50	2.11 (1.04)	1–5	0.82	0.15

Note. DA – Developmental Assets; *M* – Mean; *SD* – Standard Deviation.

Table 7.2 *Correlations Between Variables for the Whole Sample.*

		1	2	3	4	5	6	7	8	9	10
1.	Gender	-									
2.	Educational stage	.16**	-								
3.	Commitment to learning	.24**	.25**	-							
4.	Positive values	.13**	-.00	.46**	-						
5.	Social competencies	.14**	.09*	.47**	.56**	-					
6.	Positive identity	-.16**	-.00	.24**	.31**	.32**	-				
7.	Support	.08*	.10**	.32**	.31**	.32**	.37**	-			
8	Empowerment	.09*	.11**	.41**	.33**	.36**	.37**	.51**	-		
9.	Expectations and boundaries	.13**	.09*	.40**	.40**	.42**	.33**	.58**	.39**	-	
10.	Constructive use of time	-.04	-.09*	.27**	.39**	.30**	.26**	.28**	.27**	.27**	-
11.	Worry (overall)	.18**	-.00	-.07	-.10**	-.07*	-.45**	-.21**	-.21**	-.14**	-.12**

Note. *p <.05; **p <.01

Gender was coded as 1 (boy) and 2 (girl), and educational stage as 1 (high school) and 2 (university). Correlations between gender and other variables, and between educational stage and other variables are point-biserial correlations (r_{pb}).

After the DAs were included in the regression analyses, the regression coefficients for gender were significant only for worry about *inability to find employment* and worry about *being lonely*, as well as overall worry. The direction of the coefficients showed that girls worry more than boys.

After the DAs were included in the regression analyses, *educational stage* was significantly associated with worry about *inability to find employment*, with university students reporting higher degrees of worry than high school students. Educational stage was also related to worry about *getting into bad company*, with high school students reporting higher degrees of worry than university students.

Regression Analyses for the Two Subsamples According to Educational Stage

We used hierarchical regression analyses on each of the two subsamples to explore if different DAs affect worrying in high school compared to university students (see Table 7.4). Model 2, which included all DA categories, explained 24% of the variance in overall worry among youths in high school and 26%

among youths in university. DAs alone explained 19% of the variance in worry among high school and 24% among university students.

Positive identity was significantly associated with overall worry for youths both in high school and university. *Social competencies* was significantly associated with overall worry for youths in high school, while *commitment to learning* was significantly associated with overall worry among youths in university. The only external DA category that was significantly associated with overall worry was *support*, and only among university students.

Positive identity was significantly associated with worry about *doing badly at school or further education* for high school students and worry about *inability to find employment* among university students.

Besides *positive identity*, significant associations with worry about *inability to find employment* were found for the DA categories *commitment to learning* and *expectations and boundaries* among high school students, and *social competencies* among university students. Significant associations with worry about *doing badly at school or further education* were found for the DA categories *commitment to learning* and *social competencies* among high school students and *support* among university students.

Besides *positive identity*, the DA category *social competencies* was significantly associated with worry about *getting into bad company* for youths in high school, while *commitment to learning* was significantly associated with worry about *being poor* for youths in university. Among university students, the DA categories *support*, *constructive use of time*, and *positive identity* were significantly associated with worry about *being lonely*.

When DAs were included in the analyses, *gender* was significantly associated with overall worry, worry about *inability to find employment*, and worry about *being lonely* for youths in high school, and for youths in university gender was only significantly associated with worry about *inability to find employment*. In both subsamples, it was the female gender that was associated with higher levels of worry.

Table 7.3 *Results of Hierarchical Regression Analyses for the Whole Sample with Overall Worry and Different Domains of Worry as Outcomes.*

	Worry 1		Worry 2		Worry 3		Worry 4		Worry 5		Overall worry	
	B (SE)	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*
1.												
Gender	.53*** (.09)	.22***	.27** (.09)	.11**	-.03 (.07)	-.01	.49*** (.09)	.2***	.21* (.08)	.1*	1.47*** (.29)	.19***
Educational stage	.2* (.09)	.08*	-.2* (.09)	-.09*	-.24*** (.07)	-.14***	-.12 (.09)	-.05	.07 (.08)	.03	-.28 (.29)	-.03
	R^2 = .06***		R^2 = .02**		R^2 = .02**		R^2 = .04***		R^2 = .01*		R^2 = .04***	
2.												
Gender	.36*** (.09)	.15***	.17 (.09)	.07	-.06 (.07)	-.04	.33*** (.09)	.14***	.09 (.08)	.04	.87** (.28)	.11**
Educational stage	.17* (.09)	.07*	-.12 (.08)	-.05	-.22** (.07)	-.12**	-.1 (.08)	-.04	.07 (.08)	.03	-.19 (.27)	-.03
Commitment to learning	.04 (.04)	.05	-.08* (.03)	-.11*	-.02 (.03)	-.04	.07* (.03)	.09*	.04 (.03)	.06	.06 (.11)	.02
Positive values	-.03 (.03)	-.05	.01 (.03)	.01	-.01 (.02)	-.02	.05 (.03)	.08	-.01 (.03)	-.01	.01 (.09)	.01
Social competencies	.09** (.03)	.12**	.06 (.03)	.08	.02 (.03)	.04	-.01 (.03)	-.01	.02 (.03)	.02	.18 (.1)	.08
Positive identity	-.23*** (.03)	-.31***	-.24*** (.03)	-.34***	-.08*** (.02)	-.15***	-.24*** (.03)	-.32***	-.21*** (.03)	-.32***	-.99*** (.09)	-.42***
Support	-.01 (.04)	-.01	-.05 (.04)	-.05	.00 (.03)	.01	-.11** (.04)	-.12**	-.06 (.04)	-.07	-.21 (.13)	-.07
Empowerment	.00 (.05)	.00	-.05 (.05)	-.05	-.07 (.04)	-.09	-.11* (.05)	-.1*	-.01 (.04)	-.01	-.24 (.15)	-.07
Expectations and boundaries	.01 (.03)	.02	.02 (.03)	.04	.03 (.02)	.07	.01 (.03)	.01	-.03 (.03)	-.05	.05 (.09)	.02
Constructive use of time	.00 (.04)	.00	.03 (.04)	.03	.03 (.03)	.03	-.07 (.04)	-.06	-.01 (.04)	-.01	-.03 (.13)	-.01
	R^2 = .15***		R^2 = .15***		R^2 = .05**		R^2 = .21***		R^2 = .14***		R^2 = .23***	
	ΔR^2 = .09***		ΔR^2 = .14***		ΔR^2 = .03**		ΔR^2 = .17***		ΔR^2 = .13***		ΔR^2 = .2***	

Note. *p<.05 **p<.01 ***p<.001

Worry1 = Inability to find employment, Worry2 = Doing badly at school or further education, Worry3 = Getting into bad company, Worry4 = Being lonely, Worry5 = Being poor

Gender was coded as 1 (boy) and 2 (girl), and educational stage as 1 (high school) and 2 (university).

Table 7.4 *Results of Hierarchical Regression Analyses for Different Domains of Worry as Outcomes with the two Subsamples According to Educational Stage.*

	Worry1				Worry2				Worry3			
	High School		University		High School		University		High School		University	
	B (SE)	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*
1.												
Gender	.47*** (.11)	.20***	.62*** (.14)	.25***	.31** (.11)	.13**	.19 (.13)	.08	.05 (.09)	.03	-.15 (.09)	-.09
	R^2 =**.04****		R^2 = **.06****		R^2 = **.02****		R^2 = **.01**		R^2 = **.00**		R^2 = **.01**	
2.												
Gender	.3* (.12)	.13*	.47** (.14)	.19**	.18 (.12)	.08	.16 (.13)	.07	.03 (.1)	.01	-.16 (.1)	-.1
Commitment to learning	-.02* (.04)	-.02	.14* (.06)	.17*	-.12** (.04)	-.15**	-.03 (.05)	-.03	-.06 (.04)	-.09	.02 (.04)	.03
Positive values	-.01 (.04)	-.01	-.06 (.04)	.09	.01 (.04)	-.01	.00 (.04)	.00	-.04 (.03)	-.09	.02 (.03)	.04
Social competencies	.12** (.04)	17**	.03 (.05)	.04	.09* (.04)	.13*	.02 (.05)	.02	.08* (.04)	.13*	-.04 (.04)	-.08
Positive identity	-.24*** (.04)	-.33* **	-.24*** (.04)	-.33* **	-.28*** (.04)	-.38* **	-.19*** (.04)	-.29* **	-.09** (.03)	-.16**	-.07* (.03)	-.15*
Support	.01 (.05)	.01	-.08 (.07)	-.09	.00 (.05)	.00	-.13* (.07)	-.15*	.03 (.04)	.04	-.04 (.05)	-.07
Empowerment	-.01 (.06)	-.01	.05 (.08)	.05	.00 (.06)	.00	-.13 (.07)	-.12	-.04 (.05)	-.05	-.1 (.05)	-.14
Boundaries and expectations	-.05 (.04)	-.07	.1* (.05)	.16*	.00 (.04)	-.01	.07 (.04)	.12	.04 (.03)	.07	.04 (.03)	.09
Constructive use of time	.01 (.06)	.01	-.01 (.07)	-.01	.09 (.06)	.08	-.04 (.06)	-.04	.04 (.05)	.05	-.01 (.05)	-.01
	R^2 = **.14****		R^2 = **.17****		R^2 = **.16****		R^2 = **.18****		R^2 = **.04***		R^2 = **.08****	
	ΔR^2 = **.1****		**Δ**R^2 = **.11****		**Δ**R^2 = **.14****		**Δ**R^2 = **.17****		**Δ**R^2 = **.04***		**Δ**R^2 = **.07****	

	Worry4				Worry5				Worry (overall)			
	High School		University		High School		University		High School		University	
	B (SE)	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*	*B (SE)*	*β*
1.												
Gender	.68*** (.12)	.28***	.17 (.14)	.07	.3** (.1)	.14**	.06 (.13)	.03	1.82*** (.38)	.23***	.88* (.45)	.11*
	R^2 =**.08****		R^2 = **.01**		R^2 = **.02****		R^2 = **.00**		R^2 =**.05****		R^2 = **.01**	
2.												
Gender	.45*** (.12)	.18***	.16 (.13)	.07	.15 (.11)	.07	.04 (.12)	.02	1.09** (.38)	.14**	.67 (.41)	.09
Commitment to learning	.04 (.04)	.06	.09 (.05)	.11	-.02 (.04)	-.03	.13* (.05)	.17*	-.16 (.14)	-.06	.36* (.16)	.13*
Positive values	.04 (.04)	.06	.05 (.04)	.07	-.02 (.03)	-.05	.00 (.04)	-.01	-.03 (.12)	-.02	.01 (.13)	.00
Social competencies	.02 (.04)	.02	-.03 (.05)	-.04	.06 (.04)	.09	-.03 (.05)	-.05	.36* (.14)	.15*	-.06 (.15)	-.02
Positive identity	-.26*** (.04)	-.34***	-.2*** (.04)	-.29* **	-.23*** (.04)	-.35***	-.19*** (.04)	-.29***	-1.1*** (.13)	-.45***	-.88*** (.13)	-.4***
Support	-.09 (.05)	-.1	-.13* (.07)	-.15*	-.05 (.05)	-.06	-.06 (.06)	-.08	-.09 (.16)	-.03	-.45* (.21)	-.15*
Empowerment	-.11 (.06)	-.1	-.11 (.07)	-.1	.05 (.05)	.05	-.09 (.07)	-.08	-.1 (.19)	-.03	-.37 (.23)	-.11
Boundaries and expectations	.04 (.04)	.05	-.03 (.05)	-.04	-.01 (.04)	-.02	-.04 (.04)	-.07	.01 (.12)	.00	.15 (.14)	.07
Constructive use of time	-.03 (.06)	-.02	-.13* (.06)	-.12*	.02 (.05)	.02	-.05 (.06)	-.05	.11 (.18)	.03	-.23 (.19)	-.07
	R^2 = **.22****		R^2 = **.22****		R^2 = **.14****		R^2 = **.17****		R^2 = **.24****		R^2 = **.26****	
	ΔR^2 = .15**		**ΔR^2 = .21****		**ΔR^2 = .12****		**ΔR^2 = .16****		**ΔR^2 = .19****		**ΔR^2 = .24****	

Note. *p<.05 **p<.01 ***p<.001.

Gender was coded as 1 (boy) and 2 (girl).

Worry1 = Inability to find employment, Worry2 = Doing badly at school or further education, Worry3 = Getting into bad company, Worry4 = Being lonely, Worry5 = Being poor

Discussion

This study aimed to examine the relationship between youths' DAs and worry, and how these associations differ according to gender and educational stage. Our research questions were: 1. Are youths' reports of internal and external DAs associated with self-reported degrees of worry about the future?; 2. Are internal and external DAs and degree of worry related to gender and educational stage?; 3. Do the expected associations between DAs and worry differ across educational stages?; and 4. Are different DAs associated with different domains of worry?

DAs and Worry

The regression analysis showed that the DAs explained 20% of the variance in overall worry, indicating that higher levels of DAs are associated with lower degree of worry. The findings support our first hypothesis, that DAs are negatively associated with worry. This finding is in line with previous research on adolescent worry (Brown et al., 2006), and shows the importance of DAs for youths' mental health.

Internal DAs and Worry

The *DA positive identity* was consistently associated with overall worry, and separate domains of worry across all analyses. That is of no surprise, as positive identity includes *positive view of personal future*, which refers to the same aspects of worry as do the items in the worry scale, namely concerns about negative outcomes in the future (Borkovec et al., 1983). In addition, other *positive identity* components overlap with concepts that have previously shown to be associated with worry, such as the intangible aspect of identity capital (Tikkanen, 2016).

After controlling for the effects of gender and other DAs, *positive identity* and *social competencies* were significantly associated with overall worry among youths in high school. More specifically, a higher level of *social competencies* was associated with higher worry about *inability to find employment*, *doing badly at school or further education*, and *getting into bad company*, as well as overall worry. A possible explanation for this unexpected positive relationship

is that *social competencies* involve skills in planning and decision-making (Search Institute, 2016), and youths who are better at planning and evaluating their options are more concerned about their future education and career and thus feel more pressure to perform well in these domains.

We assumed that higher levels of *commitment to learning* would be related to less worry, based on previous research findings about the relationship between school attachment and a positive view of life and the future (Crespo et al., 2013). A higher level of *commitment to learning* was associated with less worry about *doing badly at school or further education* for youths in high school, but for youths in university, it was associated with more overall worry, as well as worry about *inability to find employment* and worry about *being poor*. This might be explained by the conceptual overlap between the DA category *commitment to learning* and *achievement motivation*, which along with motivation to succeed may also include worry about failing in education, future employment, and financial income. Since this study is cross-sectional, further research is necessary to draw conclusions regarding directionality of the findings. It is also possible that high school students have a higher commitment to learning as a way of coping with their worry about doing badly in school and being poor.

External DAs and Worry

In the regression analyses, *positive identity* was the only DA category that had a significant relation to all domains of worry. Regression coefficients for external DA categories were smaller than coefficients for the internal DA category *positive identity* and were largely statistically insignificant.

Support was significantly associated with worry about *being lonely* and worry about *doing badly in school or further education*, as well as overall worry for youths in university, but it did not have significant relations with any of the worry domains among youths in high school. Based on previous research on similar concepts (Arbel et al., 2018; Brown et al., 2006; Camara et al., 2017; Duchesne et al., 2009) we had expected *support* to have a stronger relationship with worry. Perception of receiving support may affect the development of internal DAs, such as *positive identity*, so it is possible that the effects of *support* on the degree of worry is mediated by internal DAs. Future research should further investigate these effects. Furthermore, *support* might have had

a stronger relationship with worry among youths in university because this subsample had a greater proportion of girls, who tend to seek and receive support more often than boys in stressful situations (Camara et al., 2017).

The external DA category *empowerment* was also related to less worry about *being lonely* for the whole sample, but the coefficient was low, and it was further reduced and became statistically non-significant among both high school and university students. This may indicate that making youths feel safe and respected has a lower impact on decreasing the degree of worry about *being lonely* than measures aimed at increasing the DA categories *positive identity* and *support*.

Gender Differences in DAs and Worry

Investigating gender differences in DAs and worry was not the focus of this study, but we have accounted for these differences due to previous research that found gender differences in these or similar variables (Gomez-Baya et al., 2022). Before controlling for gender in the regression analyses, we first tested if such relationships between gender and DAs, and between gender and worry, exist in our sample. In line with previous studies (McLean et al., 2021; Robichaud et al., 2003; for an additional overview see Cartwright-Hatton, 2006), we found that girls worry more than boys. Girls generally experience higher levels of DAs than boys with slightly higher levels of the internal DA categories *commitment to learning*, *positive values*, and *social competencies*, and the external DA category *expectations and boundaries*. However, boys reported higher levels of *positive identity*. If we consider that *positive identity* includes aspects of concept of self-esteem, this result is in line with previous findings stating that boys score higher on self-esteem than girls (Bachman et al., 2011).

Despite scoring higher on most DAs, girls experience more worry. This further supports the importance of *positive identity* in relation to worry. Additionally, the DAs girls experience more of may have negative side effects. For example, *commitment to learning* can make youths motivated to do well in school, but also cause worry about not achieving high results. *Positive values* includes a desire to help others, promote equality, and reduce hunger and poverty, while *social competencies* includes empathy. These DAs may cause worry about others' well-being. *Expectations and boundaries* includes experiencing

high expectations from others, which can create worry about falling short and not living up to these expectations. The gender differences we found may be influenced by the fact that adolescent boys tend to avoid expressing their feelings (Bem, 1974; Chaplin & Aldao, 2013), and that appearing worried can be seen as less masculine (Cheryan & Markus, 2020; Stavosky & Borkovec, 1987).

Limitations

Because of the cross-sectional design of this study, it is not possible to draw causal conclusions about the impact of DAs on worry. In the future, it can be beneficial to study potential changes in levels of worry for youths who participate in programs that increase DAs. Since this study analyzed categories of DAs in relation to worry, it is not certain which of the DAs within each category are most influential. Further research may benefit from analyzing each of the 40 DAs, in order to specify the exact DAs that are associated with worry. Additionally, the data is based on questionnaires which may be influenced by self-report bias. To generalize the findings to a wider population, the study should be replicated with youths from other geographic areas and cultures.

Implications for Policy and Practice

Our results indicate that implementing initiatives to increase youths' *positive identity* may lead to less worry, but it is important to keep in mind that targeting the youths and people in their closest environments with such interventions is not always enough. Not all people have the necessary resources available to them, due to structural injustices in society (Dost-Gözkan et al., 2021). The part of identity capital that does not overlap with the DA category *positive identity*, tangible identity capital, includes socially visible resources, such as financial capital, education, and the family's socioeconomic status (Côté, 1997). Youths who have limited access to such resources due to social injustice tend to have less beneficial developmental outcomes (Fisher et al., 2012). To achieve positive development, these youths and the people in their close environments need to have more individual resources (Fisher et al., 2012), since initiatives that are supposed to increase DAs are less effective unless the structural injustice is also addressed.

Preventing and decreasing worry for youths can positively affect their well-being and health and should be a priority when creating youth policies. DAs are related to lower levels of worry, and along with the DA framework's adaptability to initiatives and policies, it has the potential to impact the lives of youths through policy changes and programs that aim to nourish PYD. Creators of youth policies and programs should consider demographic differences including gender and educational stage, and aim to encourage structural changes for their initiatives to decrease worry for a more diverse population of youth.

Conclusion

Having a *positive identity*, which involves believing in their self-worth and feeling that they have a purpose and control over the things that happen to them, may make youths worry less about different domains of their future lives, including social, financial, and academic outcomes. Additionally, different DAs are related to different domains of worry. Which DAs are related to worry in each of these aspects of youths' lives, as well as what youths worry about, varies based on educational stage. The findings indicate that youths in university will benefit more than youths in high school from initiatives that aim to decrease worry by increasing levels of DAs.

Acknowledgments

We would like to thank Nikola Dluzak for her participation in the Bachelor thesis on which this paper is based, as well as two anonymous reviewers and the editor for their insightful comments and suggestions. We also wish to acknowledge the participants in Croatia for their participation in this study.

References

Arbel, R., Perrone, L., & Margolin, G. (2018). Adolescents' daily worries and risky behaviors: The buffering role of support seeking. *Journal of Clinical Child and Adolescent Psychology*, *47*(6), 900–911. https://doi.org/10.1080/15374416.2016.1169536

Bachman, J. G., O'Malley, P. M., Freedman-Doan, P., Trzesniewski, K. H., & Donnellan, M. B. (2011). Adolescent self-esteem: Differences by race/ethnicity, gender, and age. *Self and Identity*, *10*(4), 445–473. https://doi.org/10.1080/15298861003794538

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *42*(2), 155–162. https://doi.org/10.1037/h0036215

Benson, P. L. (1990). *The troubled journey: A portrait of 6th–12th grade youth*. Search Institute.

Benson, P. L. (2007). Developmental assets: An overview of theory, research, and practice. In R. K. Silbereisen, & R. M. Lerner (Eds.), *Approaches to positive youth development* (pp. 33–59). SAGE Publications Ltd. https://doi.org/10.4135/9781446213803.n2

Borkovec, T. D., Robinson, E., Pruzinsky, T., & DePree, J. A. (1983). Preliminary exploration of worry: Some characteristics and processes. *Behaviour Research and Therapy*, *21*(1), 9–16. https://doi.org/10.1016/0005-7967(83)90121-3

Brown, S. L., Teufel, J. A., Birch, D. A., & Kancherla, V. (2006). Gender, age, and behavior differences in early adolescent worry. *Journal of School Health*, *76*(8), 430–437. https://doi.org/10.1111/j.1746-1561.2006.00137.x

Camara, M., Bacigalupe, G., & Padilla, P. (2017). The role of social support in adolescents: Are you helping me or stressing me out? *International Journal of Adolescence and Youth*, *22*(2), 123–136. https://doi.org/10.1080/02673843.2013.875480

Cartwright-Hatton, S. (2006). Worry in childhood and adolescence. In A. Wells, & G. Davey (Eds.), *Worry and its psychological disorders: Theory, assessment and treatment*. Wiley.

Cheryan, S., & Markus, H. R. (2020). Masculine defaults: Identifying and mitigating hidden cultural biases. *Psychological Review, 27*(6), 1022–1052. http://dx.doi.org/10.1037/rev0000209

Chaplin, T. M., & Aldao, A. (2013). Gender differences in emotion expression in children: A meta-analytic review. *Psychological Bulletin*, *139*(4), 735–765. https://doi.org/10.1037/a0030737

Côté, J. E. (1996). Sociological perspectives on identity formation: The culture-identity link and identity capital. *Journal of Adolescence*, *19*(5), 417–428. https://doi.org/10.1006/jado.1996.0040

Côté, J. E. (1997). An empirical test of the identity capital model. *Journal of Adolescence*, *20*(5), 577–597. https://doi.org/10.1006/jado.1997.0111

Crespo, C., Jose, P. E., Kielpikowski, M., & Pryor, J. (2013). "On solid ground": Family and school connectedness promotes adolescents' future orientation. *Journal of Adolescence*, *36*(5), 993–1002. https://doi.org/10.1016/j.adolescence.2013.08.004

Cupid, J., Stewart, K. E., Sumantry, D., & Koerner, N. (2021). Feeling safe: Judgements of safety and anxiety as a function of worry and intolerance of uncertainty. *Behaviour Research and Therapy*, *147*, 103973. https://doi.org/10.1016/j.brat.2021.103973

Dost-Gözkan, A., Kozina, A., Stefenel, D., & Wiium, N. (2021). External developmental assets and positive identity among emerging adults in Norway, Romania, Slovenia,

and Turkey. *Frontiers in Psychology*, *12*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.656972

Duchesne, S., Ratelle, C. F., Poitras, S.-C., & Drouin, E. (2009). Early adolescent attachment to parents, emotional problems, and teacher-academic worries about the middle school transition. *The Journal of Early Adolescence*, *29*(5), 743–766. https://doi.org/10.1177/0272431608325502

Ergene, T. (2011). The relationships among test anxiety study habits achievement motivation and academic performance among Turkish secondary school students. *Egitim ve Bilim*, *36*(160), 320.

Fisher, C. B., Busch-Rossnagel, N. A., Jopp, D. S., & Brown, J. L. (2012). Applied developmental science, social justice, and socio-political well-being. *Applied Developmental Science*, *16*(1), 54–64. https://doi.org/10.1080/10888691.2012.642786

Gomez-Baya, D., Salinas-Perez, J. A., Sanchez-Lopez, A., Paino-Quesada, S., & Mendoza-Berjano, R. (2022). The role of developmental assets in gender differences in anxiety in Spanish youth. *Frontiers in Psychiatry, 13*(810326). https://doi.org/10.3389/fpsyt.2022.810326

IBM Corp. (2017). *IBM® SPSS® Statistics for macOS* (Version 25). IBM Corp.

King, N. J., Ollier, K., Iacuone, R., Schuster, S., Bays, K., Gullone, E., & Ollendick, T. H. (1989). Fears of children and adolescents: A cross-sectional Australian study using the revised-fear survey schedule for children. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *30*(5), 775–784. https://doi.org/10.1111/j.1469-7610.1989.tb00789.x

Keogh, E., Bond, F. W., French, C. C., Richards, A., & Davis, R. E. (2004). Test anxiety, susceptibility to distraction and examination performance. *Anxiety, Stress & Coping: An International Journal, 17*(3), 241–252. https://doi.org/10.1080/10615300410001703472

Leffert, N., Benson, P. L., Scales, P. C., Sharma, A. R., Drake, D. R., & Blyth, D. A. (1998). Developmental Assets: Measurement and prediction of risk behaviors among adolescents. *Applied Developmental Science*, *2*(4), 209–230. https://doi.org/10.1207/s1532480xads0204_4

de Matos, M., Gaspar, T., Cruz, J., & Neves, A. (2013). New highlights about worries, coping, and well-being during childhood and adolescence. *Psychology Research*, *5*, 252–260. https://doi.org/10.17265/2159-5542/2013.05.002

McLaughlin, K. A., Borkovec, T. D., & Sibrava, N. J. (2007). The effects of worry and rumination on affect states and cognitive activity. *Behavior Therapy, 38*(1), 23–38. https://doi.org/10.1016/j.beth.2006.03.003

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of Psychiatric Research, 45*(8), 1027–1035. https://doi.org/10.1016/j.jpsychires.2011.03.006

Muris, P., Merckelbach, H., Meesters, C., & van den Brand, K. (2002). Cognitive Development and Worry in Normal Children. *Cognitive Therapy and Research 26*, 775–787 https://doi.org/10.1023/A:1021241517274

Neblett, N. G., & Cortina, K. S. (2006). Adolescents' thoughts about parents' jobs and their importance for adolescents' future orientation. *Journal of Adolescence*, *29*(5), 795–811. https://doi.org/10.1016/j.adolescence.2005.11.006

Oliveira, J. O., Mendonça, M., Coimbra, S., & Fontaine, A. M. (2014). Family support in the transition to adulthood in Portugal – Its effects on identity capital development,

uncertainty management and psychological well-being *Journal of Adolescence, 37*(8), 1449–1462. https://doi.org/10.1016/j.adolescence.2014.07.004

Owens, M., Stevenson, J., Julie A. Hadwin, J. A., & Norgate, R. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology International, 33*(4) 433–449. https://doi.org/10.1177/0143034311427433

Robichaud, M., Dugas, M. J., & Conway, M. (2003). Gender differences in worry and associated cognitive-behavioral variables. *Journal of Anxiety Disorders, 17*(5), 501–516. https://doi.org/10.1016/s0887-6185(02)00237-2

Romppanen, E., Korhonen, M., Salmelin, R. K., Puura, K., & Luoma, I. (2021). The significance of adolescent social competence for mental health in young adulthood, *Mental Health & Prevention, 21*(200198), https://doi.org/10.1016/j.mhp.2021.200198.

Salmela-Aro, K., Mutanen, P., Koivisto, P., & Vuori, J. (2010). Adolescents' future education-related personal goals, concerns, and internal motivation during the "Towards Working Life" group intervention. *European Journal of Developmental Psychology, 7*(4), 445–462. https://doi.org/10.1080/17405620802591628

Saw, A., Berenbaum, H., & Okazaki, S. (2013). Influences of personal standards and perceived parental expectations on worry for Asian American and White American college students. *Anxiety, Stress & Coping, 26*(2), 187–202. https://doi.org/10.1080/10615806.2012.668536

Scales, P. C. (2011). Youth developmental assets in global perspective: Results from international adaptations of the developmental assets profile. *Child Indicators Research, 4,* 619–645. https://doi.org/10.1007/s12187-011-9112-8

Search Institute. (2016). *The Developmental Assets® Framework.* Search Institute. https://www.search-institute.org/our-research/development-assets/developmental-assets-framework/

Stavosky, J. M., & Borkovec, T. D. (1987). The phenomenon of worry: Theory, research, treatment and its implications for women. *Women & Therapy, 6*(3), 77–95. https://doi.org/10.1300/J015V06N03_07

Tikkanen, J. (2016). Concern or confidence? Adolescents' identity capital and future worry in different school contexts. *Journal of Adolescence, 46,* 14–24. https://doi.org/10.1016/j.adolescence.2015.10.011

Vîslă, A., Stadelmann, C., Watkins, E., Zinbarg R. E., & Flückiger, C. (2022). The relation between worry and mental health in nonclinical population and individuals with anxiety and depressive disorders: A meta-analysis. *Cognitive Therapy and Research 46,* 480–501. https://doi.org/10.1007/s10608-021-10288-4

Wells, A. (2002). Worry, metacognition, and GAD: Nature, consequences, and treatment. *Journal of Cognitive Psychotherapy, 16*(2), 179–192.

Wiium, N., & Dimitrova, R. (2019). Positive youth development across cultures: Introduction to the special issue. *Child & Youth Care Forum, 48*(2), 147–153. https://doi.org/10.1007/s10566-019-09488-7

Wiium, N., Dost-Gözkan, A., & Kosic, M. (2019). Developmental assets among young people in three European contexts: Italy, Norway, and Turkey. *Child & Youth Care Forum, 48,* 187–206. https://doi.org/10.1007/s10566-018-9446-1