



Personal and Contextual Developmental Assets Predictors of Thriving in Adolescence

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Research Article

Volume 8 Issue 1

Received Date: February 10, 2023

Published Date: March 23, 2023

DOI: [10.23880/pprij-16000326](https://doi.org/10.23880/pprij-16000326)

Abstract

The Positive Youth Development approach suggests that positive development, or Thriving, can occur through a convergence of positive individual characteristics and favourable contextual conditions. The purpose of this study was to analyse the experience of Thriving in Portuguese adolescents and to specifically explore what personal and contextual Developmental Assets were predictive of Thriving. A convenience sample of 503 Portuguese students was evaluated, ages between 13 and 19 ($M = 15.92$; $SD = 1.17$), 63% female gender. Thriving is a multidimensional construct, so the results of this study indicate the individual variation in terms of interests and capabilities. Results suggest the impact of a subset of Developmental Assets on the prediction of Thriving, representing 36% of the variance in the Thriving Index scores, and between 9% to 33% on the variance of the Thriving Individual Indicators. A subset of Developmental Assets contributed to explain the variance in more than one outcome of Thriving: Personal Power, Planning and Decision Making, Cultural Competence, Achievement Motivation, and Participation in Youth programs. Results suggest the theoretical and practical utility of the use of Thriving indicators and of the Developmental Assets framework for understanding optimal development in adolescence.

Keywords: Thriving; Developmental Assets; Positive Youth Development; Positive Developmental Outcomes

Introduction

The Positive Youth Development perspective stands out at the beginning of the 21st century as a conceptual alternative to health models focused on developmental problems and deficits. This approach promotes an emphasis shift from problems to strengths, from deficits to resources; it is therefore centered on factors that foster an optimal development [1-5]. Within this perspective, research on adolescence has aimed to focus on the items that define not

only a normal or adequate development, but also an optimal development, i.e., Thriving [6].

In this context, the concept of 'Thriving' derives from developmental systems theories structured by a relational metatheory of human development that proposes a comprehensive approach to development which involves the integration of all levels of organization - from the biological and psychological to cultural and historical- while emphasizing that the basic process of human development

involves relationships of reciprocal influence between the developing individual and the multiple levels of his or her changing context [4-6]. Consequently, the developmental system is characterized by a potential for systematic change, i.e., by plasticity and diversity, which suggests that positive human development can be achieved through the application of developmental sciences to actions aimed at the articulation of the characteristics of individuals and ecologies. This recognition of the potential for systematic intraindividual changes throughout development leads to the central assumption that positive development, i.e. Thriving, can be achieved through a convergence between individual resources and favorable contextual conditions [7].

Thriving is suggested as the specific expression of positive development in adolescence Benson PL, et al. [8,9] explain that Thriving refers to a developmental goal or “*developmental telos*” that has a focus on aspects of development that go beyond the relative absence of pathology, and beyond mere competence or the simple performance of developmental tasks. Thus, Thriving constitutes a “*theory of optimal development* (not just *adequate* development)” [9].

Benson, et al. [8] explain that Thriving represents a dynamic and bi-directional relational interplay of the adolescent and the developmental contexts over time, and that it reflects the complexity of balance and plasticity between person and context, continuity and discontinuity, status and process. In other words, the construct refers to the current successful development, i.e., to “the location” on particular indicators, but, beyond that, it also refers to the person’s developmental “path”, that is to say it refers to an upward developmental trajectory, or to what the authors call “*exemplary adaptive developmental regulation*” (Benson and Scales, 2009). For this reason, the authors suggest describing the adolescent at any point in time as more or less thriving oriented, rather than just as thriving or not [8].

There is a lack of consensus in the research on what constitutes Thriving throughout adolescence and how it can be measured [10], as it is a concept under study [11-21]. This difficulty in reaching a consensus on what constitutes Thriving in adolescence (compared to risk behaviors that need to be addressed in adolescence) may be attributed to the fact that indicators of Thriving reflect more of a particular moral and contextual perspective, while the universality of the concept is less likely [22].

The Search Institute, a non-profit organization that aims to conduct and apply research that promotes positive youth development, focused on seven indicators of Thriving in adolescence: School Success, Leadership, Helping Others, Maintenance of Physical Health, Delay of Gratification, Valuing Diversity and Overcoming Adversity

[10,23]. These indicators of Thriving were selected on account of their relationship with different positive results in several dimensions of a positive development, namely at physical, socio-emotional, psychological levels, and these associations are found in several studies in adolescents from diverse socioeconomic contexts, ethnic groups and genders [10,22,23,26]. Once they are operationalized as a state, they suggest global development processes. In turn, they reflect everything that adolescents accomplished, at least in an adequate way, or even excellently, namely, a series of developmental tasks conceived as important for adolescents. Conceptually, it is not to be expected that adolescents obtain high scores in all markers to consider that they experience Thriving. As it was observed before, the proposition that Thriving reflects a fusion of person and context in mutually beneficial relations implies that there are several pathways, or combinations of markers that lead to the experience of Thriving [10,22,23,26].

On the other hand, within the Positive Developmental Perspective in Adolescence, the assumption that positive development, Thriving, maybe reached through an integration between positive personal and ecological characteristics, has led to the emergence of models that pay attention to these factors that benefit the optimal development of adolescents, focusing on the strengths, resources, and positive experiences of adolescents and their developmental contexts. One of these models constitutes the framework of Developmental Assets, known as *Developmental Assets*®, proposed by the Search Institute [1], which we present in summary form in Table 1.

Developmental Assets are defined as relations, opportunities and personal qualities that can be explored either at an individual, or a contextual level (family, school, community) so as to guide adolescents to a positive development [24-27]. This Model proposes thus the positive developmental nutrients that young people need for successful development [25]. The Model of Developmental Assets based on the assumptions of systemic theories of development, configured by a relational meta-theory of human development, is theoretically based on the association of positive ecological characteristics (External Assets) to competences, skills and personal values (Internal Assets), which in combination, are conducive to successful development in many ways, that is, Thriving [1,10,23,27-30]. Thus, it is proposed that positive development occurs in the fusion of an active, involved, and competent person, with receptive, supportive and favorable ecologies, which, according to the model, constitutes a fusion of external assets (i.e., ecological) and internal assets, emphasizing that a successful development is dynamically related to the experience of a full complement of external and internal assets [31].

Developmental Assets	
External Assets	Internal Asset
Category Support	Category Commitment to Learning
Asset 1: Family support: Family life provides high levels of love and support.	Asset 21: Achievement Motivation: Adolescent is motivated to do well in school.
Asset 2: Positive family communication: Adolescent and her or his parent(s) communicate positively, and young person is willing to seek advice and counsel from parents.	Asset 22: School engagement: Adolescent is actively engaged in learning.
Asset 3: Other adult relationships: Adolescent receives support from three or more nonparent adults.	Asset 23: Homework: Adolescent hands in homework on time.
Asset 4: Caring neighborhood: Adolescent experiences caring neighbors.	Asset 24: Bonding to school: Adolescent cares about teachers and other adults at school.
Asset 5: Caring school climate: School provides a caring, encouraging environment.	Asset 25: Reading for pleasure: Adolescent enjoys and engages in reading for fun most days of the week.
Asset 6: Parent involvement in schooling: Parent(s) are actively involved in helping adolescent succeed in school.	Category Positive Values
Category Empowerment	
Asset 7: Community values youth: Adolescent perceives that adults in the community value youth.	Asset 26: Caring: Adolescent places high value on helping other people
Asset 8: Youth as resources: Adolescents are given useful roles in the community.	Asset 27: Equality and social justice: Adolescent places high value on promoting equality and reducing hunger and poverty.
Asset 9: Service to others: Adolescent serves in the community one hour or more per week.	Asset 28: Integrity: Adolescent acts on convictions and stands up for her or his beliefs.
Asset 10: Safety: Adolescent feels safe at home, at school, and in the neighborhood	Asset 29: Honesty: Adolescent tells the truth even when it is not easy.
Category Boundaries & Expectations	Asset 30: Responsibility: Adolescent accepts and takes personal responsibility.
Asset 11: Family boundaries: Family has clear rules and consequences and monitors the adolescent's whereabouts.	Asset 31: Restraint: Adolescent believes it is important not to be sexually active or to use alcohol or other drugs.
Asset 12: School boundaries: School provides clear rules and consequences.	Category Social Competences
Asset 13: Neighborhood boundaries: Neighbors take responsibility for monitoring adolescent's behavior.	Asset 32: Planning and decision making: Adolescent knows how to plan ahead and make choices.
Asset 14: Adult role models: Parent(s) and other adults model positive, responsible behavior.	Asset 33: Interpersonal competence: Adolescent has empathy, sensitivity, and friendship skills.
Asset 15: Positive peer influence: adolescent's best friends model responsible behavior.	Asset 34: Cultural competence: Adolescent has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.
Asset 16: High expectations: Both parent(s) and teachers encourage the adolescent to do well.	Asset 35: Resistance skills: Adolescent can resist negative peer pressure and dangerous situations.
Category Constructive Use of Time	Asset 36: Peaceful conflict resolution: Adolescent seeks to resolve conflict nonviolently.
	Category Positive Identity

Asset 17: Creative activities: Adolescent spends three or more hours per week in lessons or practice in music, theater, or other arts.	Asset 37: Personal power: Adolescent feels he or she has control over things that happen.
Asset 18: Youth programs: Adolescent spends three or more hours per week in sports, clubs, or organizations at school and/or in the community.	Asset 38: Self-esteem: Adolescent reports having a high self-esteem.
Asset 19: Religious communities: Adolescent spends one or more hours per week in activities in a religious institution.	Asset 39: Sense of purpose: Adolescent reports that life has a purpose.
Asset 20: Time at homes: Adolescent spends quality time at home.	Asset 40: Positive view of personal future: adolescent is optimistic about her or his personal future.

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Table 1: Developmental Assets® framework.

We notice that there is some similarity between the notion of indicators of *Thriving* and that of *Developmental Assets*, given that both concepts are focused on the presence of forces in the life of adolescents. Nevertheless, Development Assets are conceptualized as “*Building Blocks of Success*”, whereas the indicators of *Thriving* are considered “*Signs or Markers of Success*” [24].

Thus, Development Assets experienced cumulatively throughout time are considered predictors of, or contributors to, the process and state of optimal development, represented by the *Thriving* markers. Since the Assets are conceptualized as “*Building Blocks*” of success, a question can be asked: “*building towards what?*” [8]. In this respect, the indicators of *Thriving* represent the ‘what’ (state) and the ‘how’ (process) the Assets that help adolescents in their experience. In other words, the experience of Assets defines the conditions under which the experience of *Thriving* becomes more likely, either as a one-time state or as a developmental process [8,19,21].

The goal of the present study is to analyze the experience of *Thriving* in Portuguese adolescents, and to explore the relation between the experience of *Thriving* and that of the Development Assets, by analyzing specifically which Internal Assets and which External Assets comprised by the model are predictors of *Thriving* in adolescence.

Method

Participants

We evaluated a convenience sample of 503 students attending the regular school system 9th to 12th grade of a public school in the northern region of Portugal, with ages ranging from 13 to 19 years old ($M = 15.92$; $SD = 1.17$), mostly females (63%).

Material

Student Life Profiles: Attitudes and Behaviors® (A&B) - Questionnaire developed by the *Search Institute* [23,31-32] and validated for Portuguese-European by Soares, et al. [33]. This questionnaire is aimed at teenagers between the ages of 12 and 18 in the school context; it is composed of 159 self-report items and it includes the assessment of the experience of the 40 individual Assets, *Thriving* Indicators, risk behaviors and demographic issues.

Developmental Assets

The evaluation of the experience of the 40 individual Assets comprises 92 items, which consist of, mostly, statements for which answer options are presented on a five-point Likert scale ranging from, for example, 1=“strongly agree” and 5=“strongly disagree”, 1=“not at all important” and 5=“extremely important”, 1=“I am not like that at all” and 5=“I am very much like that”. The psychometric characteristics of the assessment of developmental Assets can be seen in Soares, et al. [33].

There are two approaches to describe the experience of Assets: 1) Data can be analyzed assuming that it is a *Likert* scale, thus the value obtained for each of the assets is interpreted as follows: the higher the score, the greater the experience of the Asset; 2) On the other hand, for reporting purposes, the score for each Asset can be used as a dichotomous variable, i. e., the adolescent has or doesn't have the Asset. This score corresponding to each 40 Assets yields an *Index* for which the punctuation ranges from 0-40 Assets, which describes the average number of Assets that each adolescent has. This approach also affords the analysis of the concept of *Asset Levels*, which reflects the broader continuum of healthy development and defines four *Asset Levels* based on the *Asset Index* experienced by the adolescent.

It represents a developmental continuum ranging from “At-risk” to “Optimal”, as well as the *Asset Building* axiom “the more assets, the better”: Level 1 – *At-risk Development*: 0 to 10 Assets; Level 2 – *Vulnerable Development*: 11 to 20 Assets; Level 3 – *Adequate Development*: 21 to 30 Assets; and Level 4 – *Optimal Development*: 31 to 40 Assets [23,31].

The Portuguese version of the A&B questionnaire has similar validity characteristics to the original version [33]. Twenty-one of the 40 Assets are measured by at least 3 items, most of them show internal consistency values that are considered acceptable, ranging from 0.60 to 0.80 (Cronbach, 1951). Thirteen Assets are measured by using individual items, therefore such an assessment is not applicable. The analysis of the internal consistency of the Categories: Support $\alpha = 0.81$; Empowerment $\alpha = 0.76$; Boundaries and Expectations $\alpha = 0.65$; Constructive use of time $\alpha = 0.39$ (multidimensional category); Commitment to Learning $\alpha = 0.67$; Positive Values $\alpha = 0.78$; Social Skills $\alpha = 0.72$; Positive Identity $\alpha = 0.83$. Dimensional Analysis of: External Assets $\alpha = 0,84$; Internal Assets $\alpha = 0,84$.

Thriving

The assessment of the experience of Thriving in adolescents focuses on seven Indicators: School Success, Leadership, Helping Others, Maintenance of Physical Health, Delay of Gratification, Valuing Diversity, and Overcoming Adversity. Thriving indicators are measured by using individual items. The assessment is carried out by means of seven items consisting mostly of statements for which response options are presented on a five-point Likert scale (except School Success with 9 and Helping Others with 6) ranging from, for example, 1=not important to 5=extremely important, 1= not at all like me and 5= very much like me. The psychometric characteristics of the Thriving Scale can be found in Soares, et al. [10].

The assessment includes the following thriving indicators: 1) School Success: Assessed through self-reported school results. Adolescents state their school results on a *Likert* scale with nine response alternatives between “Mostly very good (17 to 20)” to “Mostly insufficient (0 to 9)”; 2) Leadership: Refers to formal designations or public recognition. Adolescents indicate on a five-position *Likert* scale, between “1 = never” to “5 = five or more times”, the number of times during the last 12 months that they were leaders in a group or organization; 3) Helping Others: Evaluated by the number of hours in a typical week that adolescents say they dedicate to helping other people without receiving remuneration, on a six-point *Likert* scale, in which the response options vary from “1 = none” to “6 = 11 or more hours per week”; 4) Preserve Physical Health: Assessment through self-report regarding healthy eating

and physical exercise. It consists of a five-point *Likert* scale to which adolescents indicate the extent to which “1 = I am very like that” to “5 = I am not like that at all”, in relation to “taking good care of my body (such as eating healthy food, exercising regularly and eat three good meals a day); 5) Delay Gratification: Assessment using a five-point *Likert* scale, ranging from “1 = I’m a lot like that” to “5 = I’m not like that at all”, regarding the likelihood that the teenager saves money for something special, instead of to spend it all right away; 6) Valuing Diversity: Assessment using a five-point *Likert* scale in which the adolescent indicates the extent to which “1 = not at all important” to “5 = extremely important” “meeting people of a different race or ethnic group than mine”; 7) Overcoming Adversity: Assessed through the teenager’s self-report on a five-point *Likert* scale ranging from “1 = I’m really like that” to “5 = I’m not like that at all”, in which the teenager states to what extent people who people you know would say you give up “when the going gets tough”.

There are two approaches to describe the experience of Thriving: 1) Data can be analyzed assuming that it is a *Likert* scale, thus the value obtained for each of the assets is interpreted as follows: the higher the score, the greater the experience of Thriving. This analysis also includes the construction of a Thriving Index, composed by the sum of the answers for each item, i.e. for each individual Indicator, which allows the analysis of global Thriving experience (similarly, a high score indicates a greater Thriving experience); 2) The scale even allows, for reporting purposes, that the score for each Thriving Indicator to be considered as a dichotomous variable, i.e. the teenager experiences or does not experience the Thriving Indicator. From the score for each of the 7 individual Thriving Indicators also results the composition of the Thriving Index, which describes the average number of Thriving Indicators that each adolescent experiences.

Procedure

This study was approved by Direção-Geral da Educação (Portuguese Directorate-General for Education, process number 0416200002). Ethics approval for this research was obtained from the Ethics Committee of the Direção-Geral da Educação. This study was also carried out in accordance with regulations concerning professional ethics as stated in *Ordem dos Psicólogos Portugueses* (Portuguese Psychologists Association) [34] and obeying the same recommendations established by World Medical Association’s Declaration of Helsinki. Comissão Nacional de Proteção de Dados (National Commission for Data Protection, process number: 3154/2014) confirmed the anonymity of participants in data collection. Parents/guardians of all students who participated in the study gave written informed consent for data collection, use, and publication of the results. Data collection was conducted in the school. The survey

was administered anonymously in classroom setting with standardized instructions. Students who received parental/guardian consent were asked to complete the survey. Participants place the survey in a sealed envelope. This study ensured the anonymity and confidentiality of the data and their unique and exclusive use for research purposes.

Results

The experience of Thriving

In the analysis of the data using the dichotomous score (i.e. the adolescent experiences, or does not experience Thriving) the results suggest that the average score in the Thriving Index (1-7 indicators) is of experience of 3.57 ($SD = 1.35$) Indicators. Regarding the results in the Thriving Index, it was found that 1% of adolescents report that they experience 0 Thriving indicators, 6% experience 1 indicator, 16% experience 2, 25% experience 3, 28% experience 4, 18% experience 5, 7% experience 6, and only 1% experience all 7 indicators in the study.

The analysis of the data that use this dichotomous score, taking into account each individual Indicator, shows that only 7% say they experience School Success, 29% Leadership, 72% Helping Others, 53% Health, 63% Delay of Gratification, 71% Valuing Diversity, and 65% report that they experience

Overcoming Adversity.

The experience of Thriving and the Additive Effect of Developmental Assets

Table 2 presents the descriptive statistics for the results of the experience of Thriving in the Total Sample and the experience of Thriving according to the *Asset Level* that the adolescents report – four Levels of Assets defined as 0-10, 11-20, 21-30, and 31-40 Assets. In order to analyze the cumulative impact of the experience of developmental assets in SRH, an analysis of variance was conducted (one-way ANOVA, Post-Hoc Bonferroni). Regarding the global Thriving Index experience, results point to the existence of statistically significant differences according to the number of Developmental Assets experienced by the adolescents in the different groups, it was observed that adolescents with higher Levels of Assets tend to report a greater Thriving experience. In the analysis of individual Indicators of Thriving, we observed that the adolescents who experienced greater Level of Assets were found to have a greater experience of School Success, Preserving Health, Delayed Gratification, Valuing Adversity and Overcoming Adversity. No statistically significant differences were observed according to the Asset Level exhibited by the adolescents with regard to Leadership experience, as well as with regard to Helping Others.

Range		Total Sample	Experience of Thriving according to Asset Level				
			Level 1	Level 2	Level 3	Level 4	F
			0 - 10 (n=28)	11 - 20 (n=237)	21 - 30 (n=185)	31 - 40 (n=16)	
			M (SD)	M (SD)	M (SD)	M (SD)	
Thriving Index	7-40	24,85 (3,68)	22,07 (3,16)	24,13 (3,40)	26,18 (3,36)	28,56 (2,94)	
Indicator of Thriving							
School Success	1-9	6,11 (1,45)	5,71 (1,44)	6,06 (1,42)	6,22 (1,47)	6,88 (1,89)	2,57*
Leadership	1-5	1,57 (1,07)	1,39 (0,83)	1,52 (1,02)	1,73 (1,18)	1,38 (0,89)	2,00
Helping Others	1-6	2,27 (1,19)	2,37 (1,52)	2,24 (1,24)	2,27 (1,07)	2,94 (1,00)	1,77
Maint. of Health	1-5	3,55 (1,14)	2,68 (0,86)	3,39 (1,11)	3,82 (1,13)	4,31 (0,70)	13,78**
Delay Gratification	1-5	3,77 (1,13)	2,89 (1,17)	3,63 (1,13)	4,01 (1,03)	4,63 (0,62)	13,88**
Valuing Diversity	1-5	3,79 (0,95)	3,50 (0,92)	3,63 (0,99)	4,05 (0,80)	4,19 (0,91)	9,18**
Overcoming adversity	1-5	3,87 (1,07)	3,61 (1,03)	3,65 (1,02)	4,15 (1,09)	4,25 (1,00)	8,99**

Note: High results indicate greater experience of Thriving; * $p < 0.05$; ** $p < 0.01$

Table 2: Mean Scores (Standard Deviation between Brackets) of Experience of Thriving in Total Sample and Experience of Thriving according to Asset Level.

Predictors of Thriving

Stepwise multiple regression analysis was used to determine which Developmental Assets predicted Thriving (Tables 3 & 4).

Predictors of Thriving Index: the results of the stepwise multiple regression analysis suggest that the Internal Asset of Personal Power contributed the most the prediction of Thriving. The Assets of Planning and Decision Making, Use of Time - Youth Programs, Achievement Motivation, Cultural Competence, Neighborhood Boundaries (lower experience), Use of Time - Time at Home (lower experience), Use of Time - Creative activities, School Engagement, Service to Others also produced significant predictability. The final model accounted for 36% of the variance in the results.

Predictors of School Success: The results suggest the Assets Achievement Motivation, Interpersonal Competence (lower experience), Use of Time - Creative Activities, Parent involvement in Schooling (lower experience), Planning and Decision Making, Use of Time - Religious Communities, Caring Neighborhood (lower experience), Positive View of Personal Future, Positive Values - Responsibility (lower experience), and Homework are predictors of the School Success experience. The final model accounted for 23% of the variance in the results.

Predictors of Leadership: The results suggest that the Assets Youth Programs, Use of Time - Time at Home (lower experience), Positive View of Personal Future, School Boundaries (lower experience), as well as the Asset Use of Time - Religious Communities are predictors of the Leadership experience. The final model accounted for 9% of the variance in the results.

Predictors of Helping Others: The results suggest that the Assets Adult Role Models, Use of Time - Creative Activities, Use of Time - Time at Home (lower experience), Use of

Time - Youth Programs, Family Support (lower experience), Interpersonal Competence, also Reading for Pleasure, are significant predictors of Helping Others. The final model accounted for 13% of the variance in the results.

Predictors of Health: The results suggest that Planning and Decision Making, Use of Time - Youth Programs, Positive Values - Responsibility, Self-Esteem, Other Adult Relationships, Reading for Pleasure (lower experience), are significant predictors of behaviors related to the Maintenance of Physical Health. The final model accounted for 19% of the variance in the results.

Predictors of Delay of Gratification: The results of the analysis suggest that the Assets Planning and Decision Making, School Engagement, Community values Youth, Use of Time - Religious Community (lower experience), Positive View of Personal Future (lower experience), Other Adult Relationships, as well as Achievement Motivation, are significant predictors of behaviors related to the Delay of Gratification. The final model accounted for 21% of the variance in the results.

Predictors of Valuing Diversity: The results suggest that the Assets of Cultural Competence, Positive Values - Caring, Interpersonal Competence (lower experience), Family Boundaries, Other Adult Relationships, Reading for Pleasure, School Engagement (lower experience) and Positive Values - Equality are significant predictors of Valuing Diversity. The final model accounted for 33% of the variance in the results.

Predictors of Overcoming Adversity: The results suggest that the Assets of Personal Power, Sense of Purpose, Planning and Decision Making (lower experience), and also Positive Values - Responsibility are significant predictors of Overcoming Adversity. The final model accounted for 19% of the variance in the results.

		<i>B</i>	<i>T</i>	ΔR^2	$R^2(\text{Adj})$
Thriving Index					
1	Personal Power (37)	0,21	50,18**	0,15	0,15
2	Planning and Decision Making (32)	0,17	40,03**	0,07	0,22
3	Use of time-Youth Programs (18)	0,17	40,10**	0,05	0,26
4	Achievement Motivation (21)	0,18	40,22**	0,04	0,30
5	Cultural Competence (34)	0,15	30,81**	0,02	0,32
6	Neighborhood Boundaries (13)	-0,11	-30,07**	0,01	0,33
7	Use of Time - Time at Home (20)	-0,11	-20,89**	0,01	0,34
8	Use of Time - Creative Activities (17)	0,10	20,62**	0,01	0,35

9	School Engagement (22)	0,11	20,58**	0,01	0,36
10	Service to Others (9)	0,09	20,23*	0,01	0,36
Thriving					
School Success					
1	Achievement Motivation (21)	0,33	70,17**	0,14	0,14
2	Interpersonal Competence (33)	-0,18	-40,08**	0,02	0,16
3	Use of Time – Creative Activities (17)	0,15	30,61**	0,02	0,17
4	Parent involvement in Schooling (6)	-0,13	-20,94**	0,02	0,19
5	Planning and Decision Making (32)	0,13	20,75**	0,01	0,20
6	Religious Communities (19)	0,10	20,28**	0,01	0,21
7	Caring Neighborhood (4)	-0,10	-20,31**	0,01	0,22
8	Positive View of Personal Future (40)	0,10	20,39**	0,01	0,22
9	Positive Values - Responsibility (30)	-0,10	-20,22**	0,01	0,23
10	Homework (23)	0,09	20,00*	0,01	0,23
Leadership					
1	Youth Programs (18)	0,16	30,50**	0,04	0,04
2	Use of Time – Time at Home (20)	-0,15	-30,34**	0,02	0,06
3	Positive View of Personal Future (40)	0,16	30,58**	0,02	0,08
4	School Boundaries (12)	-0,11	-20,43**	0,01	0,09
5	Religious Communities (19)	0,11	20,32*	0,01	0,09
Helping Others					
1	Adult Role Models (14)	0,19	30,98**	0,04	0,04
2	Use of Time -Creative Activities (17)	0,11	20,51**	0,03	0,06
3	Use of Time -Time at Home (20)	-0,12	-20,77**	0,02	0,08
4	Use of Time -Youth Programs (18)	0,14	30,19**	0,02	0,10
5	Family Support (1)	-0,14	-30,07**	0,02	0,11
6	Interpersonal Competence (33)	0,12	20,59**	0,01	0,12
7	Reading for Pleasure (25)	0,09	20,13*	0,01	0,13

Note: * $p < 0,05$; ** $p < 0,01$.

Table 3: Predictors of Thriving (Stepwise Regression Analysis).

Predictor		β	t	ΔR^2	$R^2(\text{Adj})$
Maintenance of Health					
1	Planning and Decision Making (32)	0,19	40,27**	0,09	0,09
2	Use of Time -Youth Programs (18)	0,17	30,94**	0,04	0,13
3	Positive values -Responsibility (30)	0,15	30,49**	0,03	0,15
4	Self-esteem (38)	0,14	30,06**	0,02	0,18
5	Other Adult Relationships (3)	0,11	20,55**	0,01	0,19
6	Reading for Pleasure (25)	-0,09	-20,08*	0,01	0,19
Delay of Gratification					
1	Planning and decision making (32)	0,29	60,38**	0,13	0,12

2	School Engagement (22)	0,19	40,06**	0,05	0,17
3	Community values Youth (7)	0,12	20,51**	0,01	0,18
4	Use of Time -Religious Communities (19)	-0,11	-20,52**	0,01	0,19
5	Positive View of Personal Future (40)	-0,12	-20,63**	0,01	0,20
6	Other Adult Relationships (3)	0,10	20,18**	0,01	0,20
7	Achievement Motivation (21)	0,10	20,07*	0,01	0,21
Valuing Diversity					
1	Cultural Competence (34)	0,36	80,37**	0,23	0,22
2	Positive Values - Caring (26)	0,22	40,17**	0,06	0,28
3	Interpersonal Competence (33)	-0,16	-30,74**	0,01	0,29
4	Family Boundaries (11)	0,13	30,29**	0,01	0,31
5	Other Adult Relationships (3)	0,10	20,51**	0,01	0,32
6	Reading for Pleasure (25)	0,10	20,64**	0,01	0,32
7	Bonding to School (24)	-0,09	-20,32**	0,01	0,33
8	Positive Values - Equality (27)	0,10	20,00*	0,01	0,33
Overcoming Adversity					
1	Personal Power (37)	0,33	60,62**	0,16	0,15
2	Sense of Purpose (39)	0,18	30,75**	0,02	0,17
3	Planning and Decision Making (32)	-0,13	-20,81**	0,01	0,18
4	Positive Values-Responsibility (30)	0,12	20,71*	0,01	0,19

Note: * $p < 0.05$; ** $p < 0.01$.

Table 4: Predictors of Thriving (Stepwise Regression Analysis) (Continued).

Discussion

The Positive Youth Development perspective proposes that positive development, or Thriving, occurs through the integration between positive individual and contextual characteristics. This study had as its goal to analyze the experience of Thriving in Portuguese adolescents and to explore which personal and contextual assets are predictors of Thriving outcomes. In this study we focused on seven Thriving Indicators in adolescence: School Success, Leadership, Helping Others, Maintenance of Physical Health, Delay of Gratification, Valuing Diversity and Overcoming Adversity. The Indicators of Thriving represent the dynamical and bidirectional relational interaction throughout time, of the adolescent and his/her developmental contexts, which reflect status and process aimed at an optimally successful development [8].

The results of the analysis from the data arising from the composition of the Thriving Index suggest that adolescents experience an average of 3.57 Indicators. It is observable that the largest percentage of adolescents experience 3 (25%) to 4 (28%) Indicators. Only 1% of adolescents report experiencing all of the Thriving Indicators that comprise the

Index.

In the analysis of individual experience of Thriving Indicators, higher results are observed in the experience of Helping Others (72%), Delay of Gratification (63%), Valuing Diversity (71%), as well as Overcoming Adversity (65%). However, only 29% of the adolescents report the Leadership experience. With regard to the Maintenance of Physical Health indicator, and taking into account the importance of this indicator in development, only 53% of the adolescents report their experience. It should also be mentioned that only 7% of the adolescents report the experience of School Success (i.e., school results mostly between 17 and 20 / mostly fives).

It should be emphasized that Thriving is a multidimensional concept, which is why the results are expected to indicate individual variation in interests and competences [10,22], i.e., an adolescent may, for example, show high academic achievement, engage in volunteer work, and take care of his or her health, but may not engage in formal leadership positions. In this sense, it is not expected that all adolescents will score high on all indicators, but that the adolescents who report higher overall *Thriving*

Index scores will experience a set of indicators that reflect a modal response of the Thriving experience, in comparison to adolescents with lower overall scores [22]. The use of Indicators suggests that the Thriving experience can be achieved through multiple pathways, and it is reasonable for an adolescent to report an experience of a greater number of some indicators at the expense of others [10].

These data of Thriving allow for the identification of relevant indicators for all adolescents, while also highlighting the importance of specific indicators. This variety of relationships suggests that there is something distinctive regarding how some adolescents experience or report Thriving, emphasizing the importance of considering these differences in the experience of Thriving when focusing on the promotion of a positive development in adolescents.

In turn, the results of this study support the assumption regarding the additive nature of Developmental Assets regarding their impact on positive youth developmental outcomes, and they expand knowledge specifically to Thriving outcomes. The data indicate that the higher the number of Developmental Assets that adolescents claim to experience, the larger the probability of their also reporting the experience Thriving. It is noteworthy that, as an exception, Leadership and Helping Others are not statistically related to the Asset Levels that the adolescent reports, which suggests that the experience of these Thriving Indicators does not depend on the quantity of Developmental Assets that the adolescent reports, but on the experience of specific assets, or specific combination of assets.

The analysis of the predictive capacity of Developmental Assets regarding the experience of Thriving is consistent with these results. We observed that the experience of different Thriving Indicators is not similarly affected by the same Assets, but that specific Assets, or subsets of Assets, best predict outcomes, with Assets varying depending on the Thriving Indicator in question.

The data suggest the impact of a subset of Developmental Assets in predicting the Thriving Index, which accounts for 36% of the variance in the results. Both Internal and External Assets contributed to the variance in the results, with Internal Assets being the strongest predictor of global Thriving. The Internal Asset of Personal Power made the largest contribution to the prediction of Thriving. In the Developmental Asset Model, Personal Power is defined as the feeling of the adolescent that s/he possesses some degree of control over whatever happens. This feeling of power is related with the locus of control, which describes the causal relations between behavior and its consequences (i.e., that the outcome of a behavior be perceived by the individual as a result of something beyond his or her control, or under

his or her control). Personal Power is also associated with expectations of self-efficacy (the belief concerning the likelihood of being able to influence an outcome), which in turn is related to the concept of perception of self-competence [25].

The experience of Developmental Assets accounted for between 9% and 33% of the variance in the diverse Thriving Indicators. Regarding the School Success experience, the Achievement Motivation Asset, which is focused on the importance of the motivation for accomplishment, i.e., the adolescent being motivated to succeed in school, afforded the greatest contribution to the prediction. In the Leadership experience, the participation in Youth Programs, related to the Constructive Use of Time category, which means participation in sports, clubs, or organizations at school and/or in the community, is the Asset with the greatest contribution. Regarding the experience of Helping Others, the Asset that produced the most significant predictability was the Asset Adult Role Models - that is, parents, caregivers, and other adults who exemplify self-control, social skills, commitment to learning, and healthy lifestyles; they influence the establishment of patterns of behaviors that reinforce boundaries and encourage healthy commitments (Benson, 2006). With regard to the Thriving Indicators of Maintenance of Physical Health and Delay of Gratification, the Asset Planning and Decision Making, which exhibits an adolescent's capacity to plan ahead and make choices, had the greatest contribution in the prediction.

Regarding the Valuing Diversity Indicator, the Cultural Competence asset, i.e., the adolescent reports that s/he knows and feels comfortable with people of different cultural/racial/ethnic backgrounds (it becomes an increasingly important asset as society becomes increasingly multicultural), yielded the most significant predictability. Regarding the experience of Overcoming Adversity, the Personal Power asset, previously mentioned, provided the greatest contribution to the prediction of his/her experience.

Thus, these results highlight a subset of Assets that contributed to explaining the variance in more than one Thriving outcome, namely the Internal Assets of Personal Power, Planning and Decision Making, Cultural Competence, and Achievement Motivation, as well as the External Asset of participation in Youth Programs. It is noteworthy that in addition to the importance of this analysis of the contribution of specific assets to particular outcomes, it is important to emphasize that these experiences are part of a global set of Assets that foster healthy development, observing that these can operate both directly and in combination to account for successful development [1]. It is suggested that Assets do not operate in isolation, that is, for example, some Assets may function as precursors to other Assets. Thus, the identification

of the key predictors of the Thriving experience may favor the development of strategies aimed at fostering this experience, however the importance of adopting a holistic approach in promoting optimal development is suggested, so by adopting the Developmental Assets Model, the essential strategy focuses on *building* all the Assets in the life of adolescents.

In turn, it should be mentioned that, in Thriving results, specific Assets showed a standardized negative regression coefficient in predicting Thriving. Similar results were observed in the study by Scales et al. [22], being noteworthy that these results are contrary to what previous theory and research may predict, which lacks an explanation. The authors observed that in order to clarify whether they consist in artifacts (regression artifacts) [35] or represent meaningful explanations of the relationship between Asset experience and Thriving, the development of further studies will be needed. For example, in the analysis of Thriving Index results, the data suggest, contrary to the assumption of the Developmental Assets Model, a lower experience of Neighborhood Boundaries and Time at Home predictors of Thriving. The Model considers the role of the neighborhood in the development of adolescents, the emphasis on the Neighborhood Boundaries construct brings out the importance of neighbors' taking responsibility for monitoring the behavior of adolescents [25]. This asset showed a negative regression coefficient and contributed 1% to the variance in the results of Thriving. However, the boundaries perceived by adolescents may be an effect of neighbors becoming more severe with adolescents who have exhibited problematic behaviors, rather than the other way around. In this cross-sectional study design these relationships cannot be inferred. The same relationship can be observed with respect to the experience of the Time at Home Asset (Constructive Use of Time category). This construct highlights the importance of time that families can spend together. It emphasizes the importance of the adolescent spending time at home, to participate in family activities and to socialize constructively with parents [1]. However, the time spent at home reported by adolescents may also be an effect of parents becoming more severe with adolescents who exhibited problematic behaviors, rather than the other way around. Likewise staying at home longer may also, on the other hand, condition the experience of the Thriving indicators of Leadership and of Helping Others, or even be conducive to a greater difficulty in social terms, making adolescents more isolated.

The results of this study should be interpreted taking into account the following limitations. Given the cross-sectional design of this study, causal relationships between the experience of Thriving and Developmental Assets cannot be inferred. Further longitudinal studies are needed to determine whether Thriving outcomes are a consequence or

a determinant of the experience of Developmental Assets. In turn, regarding some of the negative regression coefficients, it may also be reasonable to treat them as anomalies that may arise from the fact that the sample is not representative, from measurement error, or other artifacts related with the adopted instrument or design. In turn, the measures used were based on self-report, and as such, they reflect individual assessment. Thus, we highlight the importance of including in future studies triangulation of the measurement of Thriving as well as of youth Assets, by means of other sources of information, such as parents or teachers.

In conclusion, this study suggests the importance of developing research aimed at conceptualizing and measuring the results of an optimal development during adolescence, namely Thriving, as well as the factors that promote its experience. This study highlights the importance of the assumptions defined by the Positive Youth Development Perspective regarding the experience of Thriving and the integration of the experience of individual (Internal) and ecological (External) Assets in promoting optimal development during adolescence. This perspective suggests that the experience of Thriving can be achieved if there is a convergence between Internal Assets, i.e., positive individual characteristics, and External Assets, which are found in families, schools, and communities – for example, the capacity of adults to provide adolescents with a positive environment in which their strengths can be optimized and positively oriented [7]. The results of this study allow for the identification of indicators of Thriving, as well as relationships between the individual and the context that place adolescents on a path towards successful development. The study suggests the theoretical and practical usefulness of employing indicators of Thriving and a *Developmental Asset Building* approach to the understanding of a successful development in adolescence [36-38].

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