

Middle School Transition from the Strengths Perspective: Young Adolescents' Character Strengths, Subjective Well-Being, and School Adjustment

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Abstract The study examined the longitudinal associations of adolescents' character strengths with subjective well-being and school adjustment during the pivotal period of the transition to middle school. The study followed 417 students and 13 teachers from four public middle schools in the center of Israel during seventh and eighth grade. Students completed questionnaires about their character strengths, life satisfaction, and positive and negative affects. Students' school adjustment was measured through grade point average and questionnaires given to the students' teachers. Findings provided extensive support for the associations among character strengths, subjective well-being (SWB), and middle school adjustment. Intellectual and temperance strengths were central in the prediction of students' school performance and achievements. Interpersonal strengths were significantly related to social functioning at school. Temperance and transcendence strengths were robust positive predictors of students' SWB. The findings extend existing knowledge about character and its relation to optimal functioning and well-being among young adolescents, and have important practical implications for applying strengths-building practices at middle schools.

Keywords School · Transition · Adjustment · Strengths · Well-being · Adolescents

1 Introduction

The transition to middle school has been identified as a complex period for young adolescents since it involves two simultaneous major transitions, which both demand modification and adjustment to new realities. The first is the transition from elementary school to the larger and more complex world of middle school, which includes substantial changes

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in learning environments, quality of teacher–student relationships, academic demands, and social challenges (Brown and Klute 2003; Dodge and Sherrill 2006; Eccles et al. 1993). The second is the transition from childhood to adolescence that is marked by a number of life changes, including the onset of formal operations, greater family independence, increased responsibilities, early romantic relationships, and puberty (Vanlede et al. 2006).

There is evidence that increasing numbers of simultaneous life changes are predictive of greater risk of declines in adjustment, an idea based in cumulative stress theory (Simmons et al. 1987). Converging data have supported this assertion by demonstrating a drop in self-esteem (Fredricks and Eccles 2002), declines in competence and perceived self-efficacy (Schunk and Pajares 2002; Urdan and Midgley 2003), lower achievement and academic competence (Dotterer et al. 2009), and increases in anxiety symptoms and absenteeism following the transition to middle school (Blyth et al. 1983; Harter et al. 1992). Poor middle school adjustment has been associated with several risk factors, such as lower self-esteem, low social competence, peer rejection and unpopularity (Bellmore 2011), insecure attachment (Duchesne et al. 2009), and multiple previous transitions (Mcdougall and Shelley 1998).

Much less attention has been given to protective factors for positive adjustment in middle school. The present study derived from the growing field of strengths-based character and virtues (Peterson and Seligman 2004), and aimed to examine the associations between adolescents' positive personality traits (character strengths), their adjustment to middle school, and their subjective well-being. Since developmental trajectories diverge in early adolescence toward either healthy adjustment or psychopathology (Petersen and Hamburg 1986), identifying the determinants of adolescents' successful adjustment is essential to understanding long-term positive developmental pathways and outcomes.

2 Character Strengths Among Adolescents

Since the formation of the scientific study of adolescent development, the predominant conceptual framework for the study of this age period has been one of “storm and stress” (Hall 1904). This deficit model of the characteristics of adolescence was predicated on a biologically reductionist model of maturational determination (Erikson 1968) and resulted in descriptions of youth as challenging and problematic (Benson et al. 2006).

Beginning in the early 1990s and expanding in the first half decade of the twenty-first century, major scientific approaches enabled youth to be viewed as resources to be developed, and not as problems to be managed (Roth and Brooks-Gunn 2003). In 1990, a group of researchers at Search Institute in Minneapolis, Minnesota, posited the concept of developmental assets that represent a wide range of environmental and interpersonal strengths known to enhance educational and health outcomes for children and adolescents (Benson et al. 1999).

Almost simultaneously, in the late 1990s and early 2000s, psychological science paid increasing attention to the concept of positive psychology, which is the scientific study of the strengths and virtues that allow individuals and communities to thrive (Seligman 2002). The rise of positive psychology also yielded a growing interest in studying character strengths, virtues, happiness and optimal functioning (Peterson and Seligman 2004; Seligman 2002; Seligman and Csikszentmihalyi 2000).

In 2004, the Values in Action (VIA) Institute completed a large-scale project in which 24 widely acknowledged and acclaimed character strengths were identified (Peterson and Seligman 2004). This family of character strengths has been shaped by identifying core

virtues recognized across cultures, religions and philosophical traditions throughout history (Park 2004).

Despite certain similarity between the Search Institute developmental assets and the VIA character strengths that are both considered as beneficial qualities that promote adjustment to the social world (Benson et al. 1999; Dahlsgaard 2005; Eccles and Gootman 2002), there are significant differences between these concepts. The developmental assets are 40 values, experiences, relationships, and qualities, grounded in the developmental systems theory (Ford and Lerner 1992), which views youth development in relational and contextual space (Lerner 1998).

Character strengths are personality traits, which refer to internal psychological processes that define the character and the specific aspects of personality that are morally valued (Park et al. 2004). These positive core characteristics of our personality are different from strengths of our innate talents and abilities, strengths of skills, and strengths of external resources and supports. While each of these areas of strength are important, character strengths provide a pathway for developing each of these areas. For example, we use perseverance to pursue a talent in dancing, hope in developing a new skill, and kindness when we are tapping our resources. Since the study of character strengths among adolescents is still in its infancy, in the present study we chose to examine the contribution of these personality assets to adolescents' adjustment.

When the VIA Inventory of Strengths has been subjected to a factor analysis process, four factors have been found and replicated across studies: temperance, intellectual, transcendence, and interpersonal strengths (Dahlsgaard 2005; Park and Peterson 2006a; Peterson and Park 2004; Peterson and Seligman 2004; Shryack et al. 2010). The factor of temperance includes strengths that reflect the modulation of motivation, behavior and emotion (e.g., authenticity, prudence, self-regulation, perseverance). Intellectual strengths comprise those that are related to seeking out and appreciating knowledge and using it with reflective judgment (e.g., love of learning, creativity, curiosity). The factor of transcendence taps strengths related to pursuing and valuing a higher meaning, purpose or connection beyond themselves (e.g., hope, religiousness, spirituality, gratitude, zest). The interpersonal strengths comprise those that are regarded to communion, collectivism and convivial relation with others (e.g., modesty, social intelligence, kindness, teamwork; Dahlsgaard 2005; Park and Peterson 2006a).

Adolescence is a stage of exciting personality growth and character development. A variety of moral skills that are developed and refined in adolescence, permit adolescents to engage in social life more effectively (Hart and Carlo 2005). In addition, formal operational thinking allows adolescents to interpret the social environment in new and different ways (Piaget 1952), which are reflected in advances in perspective-taking skills (Eisenberg 1986; Kohlberg 1981; Kohlberg and Candee 1984), other-oriented moral judgment, pro-social behaviors, and development of altruistic tendencies (e.g., Eisenberg and Fabes 1998; Eisenberg et al. 2001; Underwood and Moore 1982). Given the tremendous personality, cognitive, and moral changes occurring during adolescence, it is not surprising that studies have found that adolescents manifest more character strengths in their behavior (Park and Peterson 2006a) than young children (Park and Peterson 2006b).

Character strengths in adolescents have been associated with desirable outcomes such as subjective well-being, life satisfaction, fewer symptoms of depression and suicidal ideation (Park 2004; Park and Peterson 2006a; Gillham et al. 2011), leadership, tolerance, ability to delay gratification, kindness, and altruism (Scales et al. 2000), and a reduction of problems such as substance use, alcohol abuse, smoking, and violence (Park 2004).

Only a few studies have examined the relationship between multiple VIA strengths and middle school functioning (Park and Peterson 2006a, 2008). Park and Peterson (2006a, 2008) found that middle school students who displayed strengths such as perseverance, fairness, gratitude, honesty, hope, and perspective at the beginning of the school year had higher grades at the end of the year. However, their examination focused on academic adjustment to school, and less on the social, emotional, and behavioral aspects of school adjustment.

In the present study we hypothesized that adolescents' character strengths would play an important role in their abilities to successfully negotiate the new middle school's expectations and demands. Specifically, our study aimed to examine whether the VIA character strengths predict adolescents' school engagement and SWB through the first 2 years of middle school. The concept of school engagement refers to a student's behavioral and psychological involvement in learning at school, and assumes that adolescents must do more than simply attend school to profit from schooling (Marks 2000). Rather, they must engage with the classroom environment in ways that promote learning, and build competence not only academically but also socially, behaviorally and emotionally (Ladd and Dinella 2009).

There are many ways through which the VIA-Y strengths could promote adjustment and well-being during the middle school transition. Intellectual strengths relate to motivation for learning and as a result have the potential to enhance cognitive adjustment to school. In addition, they can mitigate the declines in academic achievement and motivation that have been broadly associated with the transition to middle school. Temperance strengths, which represent types of emotional and behavioral regulation, underlie many of the behaviors and attributes associated with school performance and academic achievement during middle school (Vukman and Licardo 2010).

Theological or transcendence strengths allow individuals to forge connections to the larger universe and thereby provide meaning to their lives (Peterson and Seligman 2004). In adolescents, transcendence strengths such as spirituality, gratitude, and hope have been related to well-being, quality of life, and life satisfaction (Froh et al. 2010; Sawatzky et al. 2009; Snyder et al. 2003). Transcendence strengths may give adolescents a deeper sense of purpose, significance and connection to others, and as a result may promote emotional adjustment to school. Interpersonal strengths may enhance social integration and the establishment of a positive social support network, and in turn increase social adjustment in the complex social environment of middle school.

3 Subjective Well-Being and School Functioning

Mental health is an entire state of being, consisting not merely of the absence of psychological symptoms and disorders but also the presence of positive factors such as subjective well-being (SWB; Seligman and Csikszentmihalyi 2000). SWB is not a single dimensional structure; rather, it comprises two distinctive components (Diener 1994): a cognitive component, related to appraisals of life satisfaction, and an affective component, which refers to both the presence of positive affect and the absence of negative emotional experiences. The affective component is a hedonic evaluation guided by emotions and feelings, while the cognitive component is an information-based appraisal of one's life wherein people judge the extent to which their lives have measured up to their expectations (Diener 2000).

A growing body of evidence suggests that adolescents' SWB is related to their school functioning. For instance, studies have demonstrated the relevance of SWB in predicting

students' changes in academic functioning, particularly with respect to their academic self efficacy, grade point average (GPA), and school attendance (Danielsen et al. 2009; Gilman and Huebner 2006; Suldo et al. 2011). In addition, adolescents who have more frequent experiences of positive emotions are more engaged in learning, and display greater school satisfaction, adaptive coping and school achievements (Lewis et al. 2009; Reschly et al. 2008). In the light of these findings, high SWB among adolescents may help them meet middle school challenges in terms of dealing with school demands, managing resources, coping with challenges, and adopting a positive attitude towards schooling.

Several recent studies have advanced our knowledge of the positive correlations between character strengths and subjective well-being in adolescents. Gillham et al. (2011) found that interpersonal strengths (e.g., kindness, teamwork) predicted fewer symptoms of depression, and that transcendence strengths (e.g., meaning, love) predicted greater life satisfaction among high school students. In addition, cross-sectional research on the VIA strengths has indicated that interpersonal strengths are closely related to well-being (Park and Peterson 2006a, 2008). In a study of middle school students, Park and Peterson (2006a, 2008) found that love, hope, and zest at the beginning of the school year predicted higher life satisfaction at the end of the school year. Other studies have suggested that interventions that strengthen people's awareness of their signature character strengths can reduce psychological symptoms and increase happiness and life satisfaction (Seligman et al. 2005, 2006).

Most studies on adolescents' character strengths have focused on measures of well-being or on specific aspects of adjustment, mainly in the academic domain (e.g., school grades). Our study, however, aimed to provide a longitudinal and comprehensive evaluation of the relationships among character strengths, well-being and a broad variety of aspects of school adjustment.

4 Hypotheses

The study advanced one central hypothesis and an exploratory question. The main hypothesis was based on the growing evidence that good character is associated with adolescents' competence and SWB, and predicted that adolescents' character strengths would be positively correlated with (a) middle school adjustment (cognitive, behavioral, emotional, social adjustment, and GPA) and with (b) SWB (positive affect and life satisfaction). Furthermore, we expected that these strengths would be negatively correlated with adolescents' negative affect.

In order to examine whether school adjustment and SWB differed in the distinctive strengths factors, an exploratory question examined the prediction of the specific VIA-Y factors (temperance, intellectual, transcendence, and interpersonal strengths) for the different aspects of school adjustment and SWB.

5 Method

5.1 Participants

Participants in the study were 417 young adolescents aged 12.1–13.8 (212 girls, 205 boys, Mean age = 12.55 years) and 13 teachers from four public middle schools in the center of Israel. Participants were first examined during the middle of seventh grade (time 1) and

again during the middle of eighth grade (time 2). Analyses included only those participants who were evaluated at both waves of measurement (95 % from the beginning sample of $n = 439$). All teachers were female and were experienced at middle school teaching. Participation was voluntary. Per capita family income tertiles were used to indicate low, medium, and high socioeconomic status (SES; assessed by using poverty income ratio). The study population was relatively homogeneous for SES with a majority of participants from a middle SES group (84 %), and others from low SES (10 %) and high SES (6 %) groups. In addition, students were mostly Jewish (97 %), with 6 % reporting Orthodox adherence, 42 % traditional and 52 % secular.

5.2 Instruments

5.2.1 *The VIA Inventory of Strengths for Youth (VIA-Y)*

Adolescents' strengths of character were measured using the self-report VIA Inventory of Strengths for Youth (Dahlsgaard 2005). The 127 item questionnaire measures 24 different strengths of character pertaining to four scales of temperance, intellectual, transcendence, and interpersonal strengths (Dahlsgaard 2005). Items are rated on a five-point Likert scale ranging from 1 (Not like me at all) to 5 (Very much like me). For instance, "I am interested in all kinds of things" (curiosity), "I think it is important to write or call people to say thank you for gifts or nice things they have done for me" (gratitude). The VIA-Y provided promising evidence of the reliability and validity. The VIA-Youth scales have been validated against self and other nomination of character strengths (Dahlsgaard 2005) and have yielded significant correlations with measures of life satisfaction ($r_s = 0.51\text{--}0.63$, $p_s < .001$), global self worth ($r_s = 0.37\text{--}0.52$, $p_s < .001$), social acceptance ($r_s = 0.34\text{--}0.44$, $p_s < .001$), and adaptive functioning ($r_s = 0.38\text{--}0.42$, $p_s < .001$). In addition, the strengths scales in the current study had satisfactory alphas (0.77–0.83).

5.2.2 *Measures of School Adjustment*

In order to assess students' school adjustment teachers completed several measures.

1. The 45-item School Engagement Survey (NCSE—The National Center for School Engagement 2006), which consisted of three scales of engagement: behavioral engagement (e.g. "the student follows the rules at school"), cognitive engagement (e.g. "the student is interested in the work he gets to do in the class"), and emotional engagement (e.g. "the student respects most of his teachers"). Teachers completed the survey for each of their students, and evaluated each item on a five-point scale (0 = not at all; 5 = yes, fit well). Three scale scores were constructed separately by summing items for each scale. Scales met and exceeded the desired criterion for reliability (Cronbach Alphas in the current study ranged from 0.80 to 0.91) and validity, with significant correlations between the different scales and GPA ($r = 0.345\text{--}0.369$, $p < .005$), Math grades, ($r = 0.40\text{--}0.48$, $p < .01$), and English grades, ($r = 0.37\text{--}0.43$, $p < .05$), (NCSE 2006).
2. The Friends subscale of The School Adjustment Report CPPRG (2001). The six-item subscale was completed by teachers and assessed the student's interactions with other students in the school context. Example items include "The student does not have many friends at school" and "The student gets along well with other students at school this year." Items are rated on a five-point scale (1 = strongly disagree; 5 = strongly

- agree). The friends subscale yielded good internal consistency in the study (alpha coefficient = 0.82).
- Students' school achievements were assessed by their GPAs, as reported by their teachers. GPA values were calculated by summing grades earned in courses (on a 0–100 point scale) and dividing by the total number of courses.

5.2.3 Measures of Subjective Well-Being

- Students completed the Positive and Negative Affectivity Scale-Child Version (PANAS-C). The scale was developed to measure negative and positive affectivity among children, and includes a list of 27 words that describe 12 positive and 15 negative emotions, such as “scared,” “excited,” and “Proud.” Students rate the extent to which they had felt each mood or feeling in the past few weeks on a five-point Likert scale (1 = not at all; 5 = extremely). Although originally developed for students in grades 4 through 8 (Laurent et al. 1999), others have used the PANAS-C for youths ranging in age from 6 to 17 years (e.g., Ebesutani et al. 2011). Earlier research supports high internal consistency for the positive and negative affect subscales (alpha coefficients = 0.90 and 0.94, respectively), and supports validity via relationships in the expected directions with similar constructs such as self-report child depression and anxiety measures (Laurent et al. 1999). In this study, alpha coefficients were 0.91 and 0.93 (at time 1) for the 12- and 15-item subscales for positive and negative affect, respectively.
- Students completed the Satisfaction with Life Scale (SWLS; Diener et al. 1985). The scale was developed to assess satisfaction with the individual's life as a whole. The scale contained five items (e.g., “In most ways my life is close to ideal”) and employed a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree). The mean score was calculated to represent the level of satisfaction. The SWLS has shown good reliability and validity. The test–retest reliability coefficient of the SWLS was 0.84 for a 1-month interval, and the internal reliability was 0.89 (Pavot and Diener 1993). In this study, the alpha coefficient was 0.85 at time 1 and 0.87 at time 2. The SWLS demonstrated adequate construct validity, convergent validity, and discriminant validity (see Pavot and Diener 1993).

5.3 Procedure

After receiving authorization for the study from the University Helsinki Ethics committee and the school principals, the schools acquired passive consent from parents and written consent from the adolescents themselves. Both adolescents and parents received a letter explaining the study with the consent forms. There were no objections to participating in the study. Confidentiality and anonymity were ensured and an identification coding system was used. Participants were allowed to withdraw at any point, without having to give a reason for doing so.

The first data collection (time 1) started in the middle of the school year (in the first week of January). Students' 7th grade teachers were asked to complete standardized questionnaires about their students' school adjustment. In addition, students completed the VIA Inventory of Strengths for Youth questionnaire, the life satisfaction questionnaire, and the positive and negative affects questionnaire. All adolescents filled out the questionnaires on their own during class time. Teachers completed the questionnaires during teachers'

meetings. The second wave of measurement took place in the middle of eighth grade. Time 2 included teachers' reports of students' GPAs, and students' reports of SWB (PANAS-C and life satisfaction). All study procedures were approved by the Israeli Ministry of Education's ethics committee.

6 Results

6.1 Descriptive Data and Differences Between Seventh and Eighth Grade

Descriptive statistics and coefficient alphas for the study variables—adolescents' character strengths, SWB, and school adjustment measure—are presented in Table 1. Repeated measures *t* test analyses revealed a significant 1.94 point decrease in GPA from seventh ($M = 78.89$, $SD = 9.53$) to eighth grade ($M = 76.95$, $SD = 10.03$), $t(416) = 6.76$, $p = .000$. In addition, eighth graders showed lower levels of life satisfaction ($M = 5.26$, $SD = 0.81$) than seventh graders ($M = 5.42$, $SD = 0.78$), $t(416) = 4.62$, $p = .000$. Finally, negative affect increased significantly in eighth grade ($M = 27.32$, $SD = 7.01$) as compared to seventh grade ($M = 26.34$, $SD = 7.03$), $t(416) = 3.03$, $p = .003$.

Bivariate correlations between the predictors (strengths factors) and predicted variables (school adjustment, GPA, SWB) are presented in Table 2. There were several significant moderate correlations between adolescents' strengths factors, school adjustment, and SWB variables.

6.2 Character Strengths and School Adjustment

Our first hypothesis was that adolescents' character strengths would be positively correlated with middle school adjustment. In order to examine the validity of this hypothesis, we

Table 1 Descriptive statistics for the VIA character strengths, SWB, and school adjustment measures

	Time 1 (seventh grade)			Time 2 (eighth grade)		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
<i>Strengths</i>						
Intellectual	3.71	0.53	0.83			
Interpersonal	3.48	0.59	0.81			
Temperance	3.56	0.68	0.77			
Transcendence	3.60	0.58	0.78			
<i>School adjustment</i>						
Cognitive adjustment	3.44	0.67	0.91			
Social adjustment	3.45	0.66	0.82			
Emotional adjustment	3.54	0.62	0.83			
Behavioral adjustment	3.52	0.67	0.80			
GPA	78.89	9.53	–	76.95	10.03	–
<i>SWB</i>						
Positive affect	42.81	9.36	0.91	42.21	9.39	0.89
Negative affect	26.34	7.03	0.93	27.31	7.01	0.92
Life satisfaction	5.42	0.78	0.85	5.26	0.81	0.87

Table 2 Correlations between character strengths factors, SWB, and school adjustment variables

Variable	CA	SO	EA	BA	GPA1	PA1	NA1	LS1	GPA2	PA2	NA2	LS2
1. Intellectual	0.21**	0.10*	0.16**	0.17**	0.43**	0.15**	-0.11**	0.03	0.32**	0.12*	-0.03	-0.01
2. Interpersonal	0.17**	0.31**	0.08	0.03	0.06	-0.04	-0.10	0.14**	0.05	0.00	-0.08	0.10*
3. Temperance	0.42**	0.12*	0.43**	0.48**	0.41**	0.21**	-0.32**	0.15**	0.41**	0.18**	-0.18**	0.07
4. Transcendence	-0.04	0.05	0.18**	0.05	0.05	0.11*	-0.16**	0.18**	0.10*	0.12*	-0.10*	0.17**

Correlation coefficients represent Pearson's r . * $p < .05$; ** $p < .01$; CA cognitive adjustment, SO social adjustment, EA emotional adjustment, BA behavioral adjustment, GPA1 grade point average at time 1; PA1 positive affect at time 1; NA1 negative affect at time 1; LS1 life satisfaction at time 1; GPA2 grade point average at time 2, PA2 positive affect at time 2, NA2 negative affect at time 2, LS2 life satisfaction at time 2

conducted stepwise multiple regression analyses with the four character strengths factors serving as the predictors, and the school adjustment variables and GPAs at time 1 and 2 serving as the dependent variables.

For cognitive adjustment to school, three factors—intellectual, temperance and interpersonal strengths—entered the final model at a significant level, which produced a multiple correlation of $R = 0.46$, $R^2 = 0.21$, $F(3,413) = 36.26$, $p = .000$. Betas, standardized betas and partial correlations for the predictors are presented in Table 3. For social adjustment to school, the final regression model included the factors of interpersonal and temperance strengths, which together produced a multiple correlation of $R = 0.33$, $R^2 = 0.11$, $F(2,414) = 24.71$, $p = .000$. For behavioral adjustment to school, one factor, temperance strengths, entered the final model at a significant level and produced a correlation of $R = 0.48$, $R^2 = 0.23$, $F(1,415) = 121.11$, $p = .000$. For emotional adjustment to school, the regression analysis conducted had an $R = 0.46$, $R^2 = 0.21$, $F(2,414) = 55.51$, $p = .000$, with two significant predictors of transcendence and temperance strengths. For the seventh grade GPA (time 1), two factors, intellectual and temperance strengths, entered the final model at a significant level, which produced a multiple correlation of $R = 0.53$, $R^2 = 0.28$, $F(2,414) = 81.55$, $p = .000$. Thus, approximately 28 % of GPA variance could be accounted for by the linear combination of these predictors. For the eighth grade GPA (time 2) the same two factors—intellectual ($\beta = 0.24$) and temperance ($\beta = 0.35$) strengths—entered the final model at a significant level, producing a multiple correlation of $R = 0.47$, $R^2 = 0.22$, $F(2,414) = 58.49$, $p = .000$.

6.3 Character Strengths and Subjective Well-Being

The second hypothesis predicted positive relationships between the character strengths factors and SWB measures. In order to examine this hypothesis we conducted stepwise multiple regression analyses with the four character strengths factors serving as the predictors, and positive emotions, negative emotions, and life satisfaction serving as the predicted variables. Betas, standardized betas and partial correlations for the predictors are presented in Table 4.

For positive affect at time 1, three factors—temperance, transcendence and intellectual strengths—entered the final model at a significant level, producing a multiple correlation of $R = 0.26$, $R^2 = 0.07$, $F(3,413) = 9.60$, $p = .000$. For negative affect at time 1, the same three factors again entered the final model at a significant level and produced a multiple correlation of $R = 0.37$, $R^2 = 0.14$, $F(3,413) = 21.61$, $p = .000$. Life satisfaction at time 1 was predicted by three variables- transcendence, temperance, and interpersonal strengths, that produced together a multiple correlation of $R = 0.25$, $R^2 = 0.07$, $F(3,413) = 9.45$, $p = .000$.

Positive affect at time 2 was predicted by temperance ($\beta = 0.17$) and transcendence ($\beta = 0.11$) strengths, $R = 0.21$, $R^2 = 0.04$, $F(2,414) = 9.28$, $p = .000$. Negative affect at time 2 was also predicted by temperance strengths ($\beta = 0.18$), $R = 0.18$, $R^2 = 0.03$, $F(1,415) = 13.46$, $p = .000$. Life satisfaction at time 2 was predicted by transcendence strengths ($\beta = 0.17$), $R = 0.17$, $R^2 = 0.03$, $F(1,415) = 12.67$, $p = .000$.

7 Discussion

The majority of research in the area of middle school adjustment has focused on risk factors for maladjustment. The bulk of evidence has documented that young adolescents'

Table 3 Multiple regressions of the VIA-Y strengths factors on middle school adjustment and GPA at seventh grade

Factors	Cognitive adjustment			Social adjustment			Behavioral adjustment			Emotional adjustment			GPA		
	B	β	Partial	B	β	Partial	B	β	Partial	B	β	Partial	B	β	Partial
Constant	1.03			1.91			1.87			1.52			39.61		
Intellectual	0.14	0.11	0.12*	-	-	-	-	-	-	-	-	-	6.25	0.35	0.37**
Interpersonal	0.16	0.15	0.16**	0.34	0.31	0.31**	-	-	-	-	-	-	-	-	-
Temperance	0.37	0.38	0.39**	0.10	0.10	0.11*	0.47	0.48	0.48**	0.38	0.42	0.43**	4.52	0.33	0.35**
Transcendence	-	-	-	-	-	-	-	-	-	0.19	0.18	0.19**	-	-	-

* $p < .05$; ** $p < .01$

Table 4 Multiple regressions of the VIA-Y strengths factors on time 1 SWB measures

Factors	Positive affect			Negative affect			Life satisfaction		
	B	β	Partial	B	β	Partial	B	β	Partial
Constant	20.44			39.38			3.59		
Intellectual	1.98	0.11	0.11**	-1.47	-0.11	-0.11**	-	-	-
Interpersonal	-	-	-	-	-	-	0.15	0.12	0.12**
Temperance	2.41	0.18	0.17**	-3.53	-0.34	-0.34**	0.15	0.14	0.14**
Transcendence	1.82	0.11	0.12**	-1.64	-0.14	-0.15**	0.21	0.16	0.16**

* $p < .05$; ** $p < .01$

long-standing personal, familial and social difficulties impede transition to middle school. Far less research has explored variables or processes associated with positive middle school adjustment. Guided by a strengths framework, this study identified a number of strength factors related to subjective well-being and positive transition to middle-school.

Findings revealed significant decreases in GPA and SWB from time 1 (the middle of seventh grade) to time 2 (the middle of eighth grade). These changes may be related to a well recognized decline in functioning (Fredricks and Eccles 2002), explained by the higher expectations and gradual increase in difficulty of the material during the middle school years. However, several strengths factors predicted positive school performance, high achievements and SWB, despite the sensitive period.

For instance, students' intellectual strengths were found to be significant predictors of cognitive adjustment to school, GPA, and positive emotions at seventh and eighth grades. Traditionally, objective learning capabilities as measured by intelligence tests have been directly linked to cognitive adjustment to school and to school grades. Interestingly, in this study, the intellectual strengths, which have been termed the strengths of the "head" (Park and Peterson 2010), constituted by motivational aspects of learning such as curiosity and enthusiasm for learning, extrapolated to cognitive adjustment to middle school.

It has long been known that factors other than ability influence children's achievements. The motivational factor has been found to play a central role in children's challenge seeking, persistence in the face of difficulty, and effective development of their skills (Dweck 1986), as well as in their perceived importance of, interest in, and enjoyment of school (Eccles 1983). These findings support the contentions of motivation theorists regarding the adaptive benefits of motivational constructs and their relations to positive academic outcomes (Deci et al. 1991; Marsh et al. 2003), adaptive mental functioning, and well-being (Pajares 2001).

Motivation for learning may decrease sharply in middle school (Gilmore and Boulton-Lewis 2009). Several common environmental changes in the middle school classroom may have a negative impact on curiosity and motivation for inquiry, such as an increase in teacher control, a focus on academic performance, and a decrease in the quality of teacher-student relationships. Therefore, middle schools should place emphasis on motivating students to learn and provide the space for curiosity and personal involvement in the educational process.

Beyond the "head strengths" that are intellectual and self-oriented, the present findings showed that the emotional and interpersonal strengths, termed the strengths of the "heart," (Park and Peterson 2010), are key factors in middle school adjustment. The factor of interpersonal strengths was found to be a significant predictor of social adjustment to

school and to students' life satisfaction. Interpersonal character strengths, such as kindness, love, and gratitude, may enhance adolescents' ability to maintain and establish interpersonal relationships and to develop social identities and a sense of belongingness. These social endeavors embody two important social goals during early adolescence. The first goal is to form and maintain close interpersonal relationships with friends and the second goal is to gain acceptance into a peer group.

Several studies have indicated that social support, social ties, and formation of and belonging to youth groups are all associated with psychological well-being and positive mental health outcomes in children and adolescents (Wenz-Gross et al. 1997; Wentzel 1999). One of the central tasks of adolescence is negotiating the process of separation-individuation characterized by decreasing dependence on the family and increasing reliance on peers for support. Therefore, those students who have difficulties in forming and maintaining satisfying peer relationships are more susceptible to poor adjustment and mental health problems (Stewart and Suldo 2011). Alternately, those who are able to establish close relationships with peers in whom they can confide and with whom they can share feelings and concerns are likely to enjoy higher levels of subjective well-being and better adjustment to the new school environment (Wentzel 1998).

Alongside the interpersonal strengths, the strengths of temperance were found to be robust predictors of social, behavioral and emotional adjustment to school. The temperance factor comprises strengths that protect against excess, such as self-regulation and control, forgiveness, and prudence. The transition to middle school involves drastic changes from the protective and regulative elementary school environment to a new surrounding of increased expectations for behavioral compliance, delayed gratification, and self-control. Self-regulatory skills constitute a common denominator that underlies many of the behaviors and attributes associated with successful learning. In addition, both the regulation of emotion in appropriate social interactions and goal-directed behavior may play important roles in social adjustment and positive conduct at school.

Our findings showed further that temperance strengths play an important role in predicting adolescents' SWB. Low levels of self-regulation have been linked to various forms of negative developmental outcomes in adolescence, such as higher levels of mental health symptoms and engagement in risk behaviors (Bakker et al. 2011; Raffaelli et al. 2005). However, adolescents' abilities at regulating attention, emotions and behavior have been associated with positive youth development, (PYD), a construct that has been operationalized within the youth development literature through the subscales of competence, confidence, connection, character and caring (Eccles and Gootman 2002; Roth and Brooks-Gunn 2003). Adaptive self-regulation can promote adolescents' management of adversities and increase the capacity for selecting goals, for recruiting the means of attaining them, and for making flexible adjustments when goals are blocked, all of which would contribute to enhanced subjective well-being (Baltes et al. 2006).

Finally, transcendence strengths were central in the prediction of students' subjective well-being and emotional adjustment to school during seventh and eighth grades. Recently, an increasing number of studies have demonstrated the association between children and adolescents' transcendence strengths, such as gratitude, hope, future-mindedness and purpose, with measures of well-being (e.g., Bronk 2011, 2012; Froh et al. 2010; Sawatzky et al. 2009). Researchers in the field of positive psychology have increasingly focused on the role that purpose and hope play in optimal youth development. Correlational findings indicate that hopeful cognitions among adolescents are positively associated with self-esteem and perceived competence, and negatively associated with symptoms of depression (Snyder et al. 1997). Similarly, a lack of purpose or meaning appears to contribute to

poorer mental health and higher levels of psychological distress (Debats 1998), lower levels of happiness (French and Joseph 1999), and less resilience (Benard 1991).

Theoretical formulations suggest a possible positive correlation between transcendence strengths and subjective well-being. Seligman (2002) has argued that happiness is derived from three major paths. The first route involves experiencing as many of life's pleasures as possible and results in immediate happiness. The other two routes produce prolonged and deeper forms of satisfaction. The second path, also termed the good life, involves becoming deeply involved in those activities that realize strengths and promote good feeling. The third, the meaningful life, involves pursuing a path in which a cause supplies a sense of commitment to something greater than oneself. In this way, embracing a concern for the world beyond the self is fundamental to achieving the most lasting form of well-being. Transcendence strengths such as purposefulness, hope and appreciation of excellence, involve aspects of both the meaningful life and the good life and, in this way, extrapolate to subjective well-being.

Beyond the relations to subjective well-being, our findings showed a positive association between transcendence strengths and emotional school engagement, represented by a student's affective reactions and sense of identification with school. This finding could be related to the orientation of the transcendence strengths toward meaning and purposefulness. Purpose in life has been represented in the literature as a powerful source of long term motivation, which acts like a compass, guiding young people to find positive direction and to achieve their life goals (Damon 2008). When young adolescents connect their purpose in life to their academic experience, academic endeavors can adopt a personal meaningfulness that they might otherwise lack. In this way, purposefulness can serve as a vital source of achievement motivation and emotional school engagement (Bronk et al. 2010).

In addition to being a prominent motivator, purpose in life is an essential component of healthy identity formation during adolescence and is highly associated with other aspects of optimal youth development, such as prosocial behavior, moral commitment, achievement, and high self-esteem (Bronk 2011). Achievement of these desired goals can lead to higher levels of subjective well-being and emotional school engagement.

These results cast a new light on the relation between character strengths and middle school adjustment. As an initial study in this emerging field of the involvement of character strengths in the educational and developmental domains, the findings of this study highlight specific associations, some intuitive and others not. The more intuitive correlations relate to the influence of intellect-related strengths on academic achievement and to the association between interpersonal strengths and social adjustment to the new school system. However, the findings of this study also uncover several less intuitive relations between character strengths and the challenging transition to middle school. A significant correlation emerged between temperance strengths and all outcome indicators. This suggests that the ability to regulate emotions, to exert inner control, to persevere, and to approach tasks with prudence constitute a broad-based mechanism that radiates onto the cognitive, emotional and social challenges of the transition to a new and demanding school system. An additional less intuitive association emerged between transcendence strengths and emotional adjustment to school. At first glance, transcendence strengths such as hope, spirituality and gratitude do not seem related to school adjustment. A tentative explanation for the association that emerged may be that belief in and identification with a system of meaning and order may underlie healthy emotional adjustment (Damon 2008) that is then generalized to the school environment. Further, it is possible that the ability to focus optimistically and with hope on long-term perspectives and goals facilitates negotiation of the immediate challenges of transition to middle school.

Apart from the correlations between the specific strength factors and outcomes, it is possible that overlaps between character strengths could form a platform of resilience that enables a smooth transition to middle school and allows adolescents to thrive. An important contribution of the present study is the initial identification and tracing of the character strengths that constitute this platform of resilience. This suggests the need for further studies that explore the mechanisms by which character strengths facilitate negotiation of challenging transitions in adolescence.

7.1 Research Limitations and Implications

The present study has several limitations that should be addressed in further research. First, the adolescent and teacher self-report measures might be susceptible to inaccuracies or bias, especially in the case of adolescents' reports of their own character strengths. In order to improve the validity of the study, further research should include alternative assessment methods such as interviews and observations. Nonetheless, an asset of the present study lies in its use of different informants, teachers and students, and in its reliance on objective measures, such as school grades, both of which increase the validity of the research.

Another weakness of this study was the limited operationalization of "school adjustment" that was measured only by grades and by teacher assessments of engagement. Limitation of the assessment at time 2 was forced mainly by the length of the questionnaires and the overload of teachers at time 2. Nonetheless, the decision to rely on teachers' ratings of students' engagement was supported by the fact that the participating teachers were all "home teachers" who are responsible for 30–40 students and meet them several times a week during school lessons and personal meetings. The role of home teachers in the Israeli education system has steadily expanded to embrace concern for the general welfare of the students and differs in certain respects from the routine of middle school teachers in other countries. Further, taking into account different informants, self-, parent-, and teacher-reports, could provide more accurate information about adolescents' school adjustment.

Another limitation concerns the longitudinal nature of the study that was limited to a one-and-a-half year period from the beginning of middle school. This period may be hypersensitive since it reflects the beginning of middle school, raising questions about the extent to which the findings can be generalized to overall middle school functioning. Further studies are needed to explore the developmental trajectories of specific strengths during middle school years and their relations to school adjustment and subjective well-being.

Finally, this study was conducted in the specific and unique Israeli context. Israel is a multi-cultural country which has been exposed to a protracted period of conflict and war within the complex constellation of the Israeli-Palestinian conflict. The chronic exposure to political violence could affect both adolescents' subjective well-being and school functioning. Further research is necessary for understanding differences and similarities in the manifestations of character strengths and their various consequences and correlates across different environments and cultures.

In addition, in Israel children begin middle school at 7th grade, parallel to the "junior high school" concept that includes grades 7 through 9. This is in contrast to the "middle school" concept in North America that stretches from grades 6 through 8, which is a relatively new model for the mid-level grades. This basic difference between the educational systems may decrease the external validity of the present findings and demands further exploration in other regions and educational systems.

7.2 Practical Implications

Findings of this study highlight that adolescents' character strengths can be important resources for their optimal adjustment during the pivotal period of early adolescence and the transition to middle school. Character strengths can be distinguished from related individual differences such as talents and abilities in that they can be taught and nurtured, making them fundamentally different from pervasive personality traits. Broadening this initial line of inquiry in further research may be translated in the long term into areas for intervention, allowing efforts to be directed toward creating family and school climates that encourage the development and nurturance of broad expressions of adolescents' character strengths across various contexts.

One of the major challenges of middle schools is to develop and implement curricula that serve all these domains of skills and competences equally well. Integrating the traditional school skills in the areas of mathematics, science, language, arts and history with social-emotional skills, based on strengths building practices holds promise for producing a high quality education that helps adolescents to meet the varied demands of this developmental period.

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