

The Effect of Korean Adolescents' Developmental Assets and Gratitude on their Happiness: A Mediating Pathway of Gratitude

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Abstract

Objectives: This study aimed to investigate the difference in developmental assets, gratitude, and happiness by gender and socioeconomic status among adolescents and examine a model linking developmental assets and gratitude to happiness.

Methods: The participants were 1,373 Korean adolescents aged 12-18. Descriptive statistics, T-tests and ANOVAs were used to analyse the demographic difference. The hypothesised model tested using path analysis techniques within a structural equation modelling. Adolescent Developmental Asset Measure by Jung¹⁵, Korea Version of Gratitude Questionnaire by Kwon, Kim, and Lee¹⁷ and Oxford Happiness Inventory developed by Hill and Arygle¹⁸ were measured. **Results:** Boys and girls did not differ significantly on total scores of internal development assets, external developmental assets, gratitude, and happiness. There were significant differences in internal developmental assets, external developmental assets, gratitude, and happiness according to SES ($F = 30.69$, $F = 39.46$, $F = 13.90$, $F = 21.38$, $p < .001$). Adolescents in middle and high class got more internal developmental assets than adolescents in low class. Adolescents in high class had more external developmental assets than adolescents in low and middle class. Adolescents in high class feel more gratitude and happier than adolescents in low and middle class. The model fit indices suggested that the hypothesised model adequately fit the data ($\chi^2 = 11.71$, $df = 1$, $p = .01$, $CFI = 1.00$, $TLI = .96$, $RMSEA = .08$). The developmental assets of adolescents directly affected happiness and also influenced happiness indirectly through gratitude. **Conclusion:** The findings from this study demonstrated the importance of gratitude a mediating factor increasing the happiness of adolescents.

Keywords: Adolescent, Developmental Asset, Gratitude, Happiness

1. Introduction

Korean adolescents have been surveyed as the least happy or content with their lives among their peers in OECD member states¹. Developmental assets are a set of protective factors that can help adolescents bounce back from adversity and go on with their life². Many previous studies have supported the notion that adolescents with better developmental assets have less risk behaviours³. Also the developmental assets approach describes

adolescent developmental processes that are believed to enhance health and well-being⁴.

Gratitude is a predisposition toward thankfulness and appreciation. People who experience high levels of gratitude tend to experience high levels of subjective well-being⁵ as it protects against psychological distress⁶. Further, gratitude buffers the adverse effect of dissatisfaction⁷.

Much of the literature on adolescent health has traditionally focused on negative indicators of high-risk behaviours⁸, while protective factors have received

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less empirical attention. The emergence of positive psychology has shifted the traditional focus on dysfunction to the study of human characteristics that contribute to optimal functioning and resilience in adverse situations⁹. However, the correlation between developmental asset and gratitude and happiness among adolescents has not yet been explored. Several studies on adolescents have demonstrated the relation of suicidal ideation, health risk behaviours, and gender or SocioEconomic Status (SES). The occurrence of suicide attempt was generally higher among the female youth¹⁰⁻¹². Meanwhile, the incidence of repeat suicide attempts was more common in males¹³.

The SES was found to play important roles for repeat suicide attempts in young people. A slight increase in suicidal behaviours has been shown among adolescents who had lower household wealth, unemployed parents, parents receiving welfare, and stress or worry about their family's economic situation¹². However, it varied by gender and school/workplace-based consultation, and clinical management for youth may be planned and delivered on a gender-appropriate basis¹³. According to previous studies, the suicidal ideation and suicide attempts were lower among adolescents who scored higher on gratitude and happiness strengths as potential protective mechanisms against health risk behaviours. However, the difference in developmental assets, gratitude, and happiness according to gender and SES has not yet been explored.

Thus, this study aims to investigate the difference in developmental assets, gratitude, and happiness by gender and SES and to examine a model linking adolescents' developmental assets and gratitude to happiness. Based on the findings of previous studies, it can be predicted that adolescents' developmental assets and gratitude affect happiness. Also, gratitude functions as a mediating variable explaining happiness (Figure 1).

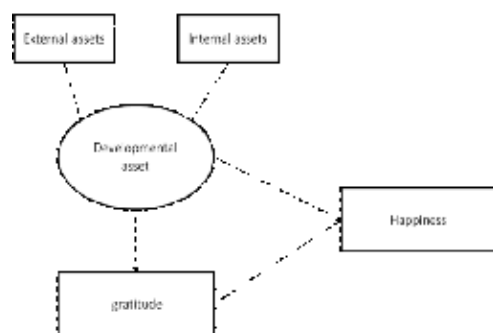


Figure 1. Hypothesised model.

2. Method

2.1 Study Design

This study utilised a cross-sectional research design to examine a model linking adolescents' developmental assets and gratitude to happiness.

2.2 Study Samples

Participants were 1,373 students aged 12-18 years old and attending middle school and high school in Korea.

2.3 Measurements

Adolescent Developmental Asset

Based on the work of Peters et al¹⁴, Jung¹⁵ developed and validated the developmental asset measure which was used in this study. The survey contains 46 items and measures eight developmental assets. External assets comprise a set of experiences and relationships across multiple contexts of the youth's life that adults (and peers) provide for young people: support, empowerment, boundaries and expectations, and constructive use of time. Internal assets comprise a set of individual qualities-values, skills, and self-perceptions-thoughts to help the young person become effectively self-regulating, committed to learning, inculcated with positive values, socially competent, and with positive identity. Higher scores indicate a higher level of developmental assets. In this study, the Cronbach's alphas for the eight asset subscales were .83 (support), .73 (empowerment), .67 (boundaries and expectations), .53 (constructive use of time), .75 (commitment to learning), .74 (positive values), .80 (social competency), and .86 (positive identity).

2.3.1 Gratitude Disposition

Based on the work of McCullough¹⁶, Kwon, Kim, and Lee¹⁷ developed and validated the Korean Version of Gratitude Questionnaire which was used in this study. The gratitude questionnaire is a short, self-reported measure of the disposition to experience gratitude. Gratitude disposition contains six items to access the gratitude that somebody felt about somebody or something in his/her life. The items are based on a 5-point Likert scale. Higher scores indicate a higher gratitude disposition. The Cronbach's alpha for gratitude disposition in this study was .86.

2.3.2 Happiness

The Oxford Happiness Inventory, developed by Hill and Arygle¹⁸, was used to measure the adolescent's sense of happiness. There is a total of 29 items (e.g., "I am well satisfied with everything in my life," "I feel fully alert mentally"), which are based on a 5-point Likert scale. Higher scores indicate a measure of broad happiness. The Cronbach's alpha for peer support was .89.

2.4 Data Collection

Our sample was comprised of high school students aged 12-18, attending four high schools and two middle schools in Seoul and Kyungi and Chungnam Province, Korea. They were selected by convenient sampling, and two classes from each grade (7th–12th grade) were randomly chosen from the selected schools. Students from the selected classes were invited to participate in the study. Originally, 1,475 students were invited, and 1,373(6.9% dropout) students finished the questionnaires. Among the students who finished the questionnaires, there were no missing data. The survey was administered in a classroom-setting during one class period with the standardized instructions. A research assistant explained the purpose of the study, anonymity, and data confidentiality, as well as the possibility of withdrawal. After the explanation of the study, a written informed consent was obtained from each participant. It required approximately 15–20 minutes completing the questionnaires.

2.5. Data Analyses

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) (version 17.0) and the Analysis of Moment Structures (AMOS) statistical software programs (version 17.0). Descriptive statistics for all study variables, as well as the reliability assessment of the study instruments, were computed. T-tests and ANOVAs were used to analyse the demographic difference. The hypothesised model in this study was analysed using Structural Equation Modeling (SEM) techniques. All observed variables exhibited multivariate normality. Missing data were estimated using the Full Information Maximum Likelihood (FIML) method. For the SEM, a goodness of fit, as well as Chi-square, was assessed. These included omnibuses fit indices such as Chi-square (χ^2) and incremental fit indices such as Comparative Fit Index (CFI) and Tucker-Lewis Index

(TLI). The χ^2 was interpreted as the test of the difference between the hypothesised model and the just identified version of the model. Low non-significant values were desired¹⁹. However, χ^2 was highly sensitive to the sample size; thus, in a model with a relatively large sample size, the null hypothesis was expected to be rejected almost all of the time. Because of this limitation, the incremental fit indices were also used. The fit indices indicated the proportion of the improvement of the hypothesised model relative to a null model, typically one assuming no correlation among the observed variables. The generally agreed-upon critical value for the CFI and TLI was 0.90 or higher¹⁵. In addition, the Root Mean Square Error of Approximation (RMSEA) was used and evaluated using the criteria that a low value (between 0 and .06) was indicative of a good-fitting model. The study also examined the mediating effects of the gratitude on the adolescent's happiness.

2.6 Ethical Considerations

This study was reviewed for research ethics by the professors in Korea.

A research assistant explained the purpose of the study, anonymity, and data confidentiality, as well as the possibility of withdrawal. After the explanation of the study, the written informed consent was obtained from the participants. We also explained that they would be free to withdraw from the study at any time, that no personal information would be revealed or used for other purposes, and that their privacy would be protected.

3. Result

3.1 Demographic Characteristics

The demographic profile of the sample is presented in Table 1. The total population is 1,373 adolescents. Regarding the proportion of gender, 44.6% of participants were boys and 55.3% of participants were girls. The mean age of participants was 16.9 (SD = 1.79). Regarding the proportion of SES, 7.7% of the participants were high class, 76.2% of participants were the middle class, and 14.1% of the participants were low class.

3.2 Descriptive Statistics

Table 2 presents the means and standard deviations. The overall mean of the adolescent's internal development

Table 1. Demographic characteristics of the sample (N=1373)

Variables	Categories	Frequency	Percent
Gender	boy	613	44.6
	girl	760	55.3
SES	high	104	7.7
	middle	1,047	76.2
	low	192	14.1

*No response excluded.

assets, external developmental assets, gratitude, and happiness was somewhat positive ($M = 3.12-3.55$ on a 5-point scale). Initial tests examined the differences of main variables across gender. Boys and girls did not differ significantly on internal development assets, external developmental assets, gratitude, and happiness ($t = -.86$, $t = 1.75$, $t = -.86$, $t = -.55$). Boys and girls did not differ significantly on total scores of internal development assets, external developmental assets, gratitude, and happiness.

Table 2. Gender differences in developmental assets, gratitude, and happiness

Variables	Categories	Gender	<i>M</i>	<i>SD</i>	<i>t</i>
Developmental assets	IDA	boy	3.42	0.57	-0.86
		girl	3.45	0.54	
		total	3.43	0.55	
	EDA	boy	3.15	0.57	1.75
		girl	3.10	0.54	
		total	3.12	0.56	
Gratitude		boy	3.53	0.70	-0.86
		girl	3.56	0.69	
		total	3.55	0.70	
Happiness		boy	3.30	0.46	-0.55
		girl	3.32	0.47	
		total	3.31	.47	

IDA=internal developmental assets, EDA=external developmental assets

Table 3 showed the differences of main variables across SES. There were significant differences in internal developmental assets, external developmental assets, gratitude, and happiness according to SES ($F = 30.69$, $F = 39.46$, $F = 13.90$, $F = 21.38$, $p < .001$). Adolescents in middle and high class got more internal developmental assets than adolescents in low class. Adolescents in high class had more external developmental assets than adolescents in low and middle class. Adolescents in high

class feel more gratitude than adolescents in low and middle class. Also, adolescents in high class felt happier than adolescents in low and middle class.

Table 3. The differences in developmental assets, gratitude, and happiness according to SES

Variables	SES	N	M/scheffe	SD	F
IDA	low	103	3.15/a	0.55	30.69***
	middle	1,029	3.40/b	0.52	
	high	190	3.73/b	0.58	
EDA	low	103	2.82/a	0.53	39.46***
	middle	1,029	3.08/a	0.52	
	high	190	3.46/b	0.57	
Gratitude	low	103	3.22/a	0.72	13.90***
	middle	1,029	3.54/b	0.68	
	high	190	3.76/b	0.71	
Happiness	low	103	3.04/a	0.42	21.38***
	middle	1,029	3.30/b	0.45	
	high	190	3.48/b	0.47	

*** $p < .001$

3.3 Correlations

Table 4 presents inter-correlations among major study variables. The results of a preliminary Pearson's correlation analysis revealed that the adolescents' internal developmental assets were significantly correlated with their gratitude ($r = .56$, $p < .001$) and happiness ($r = .69$, $p < .001$). Adolescents' external developmental assets significantly correlated with their gratitude ($r = .52$, $p < .001$) and happiness ($r = .57$, $p < .001$). The adolescents' gratitude was positively significantly correlated with their happiness ($r = .70$, $p < .001$).

Table 4. Mean, SD and correlation coefficients for major study variables

	IDA	EDA	Gratitude	Happiness
IDA	1	.71***	.56***	.69***
EDA		1	.52***	.57***
Gratitude			1	.70***
Happiness				1

** $p < .01$, *** $p < .001$

3.4 Model Fitness

The initial analysis of the hypothesised model revealed adequate fit to the data $\chi^2 = 11.71$, $df = 1$, $p = .01$, CFI = 1.00, TLI = .96, RMSEA = .08 (see Table 5). To improve

the model fit, we explored a competing model (full mediation model) which did not have a direct path from the developmental assets to happiness within the model. The full-mediation model resulted in a poor fit to the data ($\chi^2 = 390.07$, $df = 2$, $p = .00$, CFI = .86, TLI = .81, RMSEA = .38).

Comparing the hypothesised model (partially mediating model) with the competing model, the hypothesised model was a better fit (Table 6, Figure 2). Sobel's test suggested that adolescents' gratitude partially mediated the relation between developmental assets and perceived happiness ($Z = 12.90$, $p < .001$).

Table 5. Regression weights of research model

	Estimate (unstandardised)	Estimate (standardised)	SE	CR
Developmental assets --> Gratitude	1.00	.63***	.04	22.96
Developmental assets --> Happiness	.25	.51***	.01	15.35
Gratitude -->Happiness	.55	.37***	.03	18.65

*** $P < .001$, SE=Standard error, CR=composite reliability.

Table 6. Model fitness index for hypothesised model and full mediation model

Model	χ^2	df	p	TLI	CFI	RMSEA	$\Delta\chi^2$
Hypothesised model	11.71	1	0.10	0.96	1.00	0.08	-
Full mediation model	390.07	2	0.00	0.81	0.86	0.38	378.36

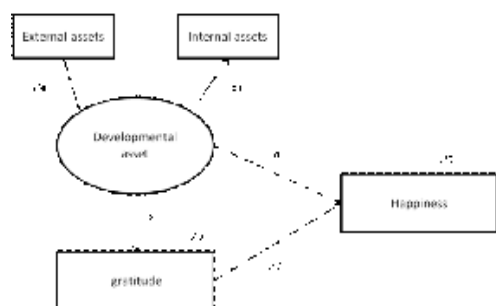


Figure 2. Final study model.

4. Discussion

The aim of this study was to determine whether developmental assets predicted happiness and to

investigate the mediating effect of the gratitude between developmental assets and happiness.

At first, the findings of this study showed the differences of main variables across SocioEconomic Status (SES). There were significant differences in happiness according to SES. Adolescents in high class felt happier than adolescents in low and middle class. This finding was partly consistent with the previous study²⁰. Chung reported that those in a family with a monthly income higher than 4,500,000 won showed high levels of happiness. Meanwhile, there has been a controversial subject in the relationship between happiness and materialism. The researcher²¹ eloquently explains that money may not make people as happy as they might think. It is important for community nurses to develop the strategy of strengthening gratitude to improve happiness among adolescents.

Second, the findings indicate that developmental assets are significant predictors of adolescents' happiness. These developmental assets include external assets such as support, empowerment, boundaries and expectations, constructive use of time, and internal assets such as commitment to learning, positive values, social competencies, and positive identity¹⁴. These developmental assets have a powerful effect on how happy adolescents are. This finding is partly consistent with a previous study²¹. Sonja explained that happier people are more sociable and energetic, more charitable and cooperative, and better liked by others compared with less happy adolescents.

Adolescents who have access to multiple external and internal developmental assets frequently demonstrate socially appropriate behaviours, intimate relationships with others, and finally feel joy and happiness¹⁴. In addition, to become happier, adolescents do not have to be set on repairing their specific weaknesses. Alternatively, they can start by identifying their strengths, talents, and protective developmental assets²¹. Despite the importance of their sense of happiness, Korean children and teenagers have been surveyed as the least happy or content with their lives among their peers among OECD member states. Summing up the scores for satisfaction with school and family life, as well as other sectors, Korea's overall happiness index reached 65.1, the lowest among its OECD peers¹. We thought that Korea's adolescents were stressed for studying harder to get into a popular university than to learn how to be happy. Also, compared with traditional

family style, nuclear family style has far less belonging and commitment to each family and community, and is, thus, less buffered by social support and strong meaningful connections to others. If adolescents want to be happy, they pursue new understandings around them, seek valuable achievements, and control their thoughts and feelings. Thus, happiness depends on how good the various developmental assets are perceived to be in a person's life.

Third, the findings investigate the mediating effect of the gratitude between developmental assets and happiness. This result was partly consistent with that of previous studies⁶, which underlined the importance of "being grateful" of adolescents. Adolescents who had high developmental assets readily recognized that their lives were enriched by the benevolent actions of others²². In other words, gratitude is the recognition that they need to thank someone else's kindness in their life²². Grateful people may spend less of their time striving after more possessions and valuable things. Robert Emmons²³ suggested that if adolescents feel gratitude toward their family or neighbor, adolescents will treat them better, perhaps producing a win-win strategy in their life. After which, adolescents will boost experiences of joy, contentment, and love in their life and they will easily become happier people.

Adolescents are especially inclined to rely on social relationships as a key to their subjective well-being in the face of stress and trauma²⁰. On the other hand, although adolescents have great developmental assets and establish a good performance in studying, they can't feel and express gratitude toward themselves and their neighbor; thus, they truly don't feel happy. The key to happiness lies not only in having lots of developmental assets but also in expressing gratitude toward others in daily life. Sonja suggested that the expression of gratitude is a kind of blessing strategy for achieving happiness²¹. Choosing gratitude is choosing happiness. The fountain of happiness can be found in appreciating what is already in our hand. We need to strive to be thankful for the small things in life²³. Furthermore, expressing gratitude diminishes negative feelings such as depression, anxiety, and loneliness. The ability to appreciate their difficult circumstances allows adolescents to cope with stressful events and traumas.

5. Conclusion

The purpose of this study was to investigate the difference in developmental assets, gratitude, and happiness by gender and SES and examine a model linking adolescents' developmental assets and gratitude to happiness. Boys and girls did not differ significantly on total scores of internal developmental assets, external developmental assets, gratitude, and happiness. There were significant differences in internal developmental assets, external developmental assets, gratitude, and happiness according to SES. The model fit indices suggested that the hypothesised model adequately fit the data ($\chi^2 = 11.71$, $df = 1$, $p = .01$, CFI = 1.00, TLI = .96, RMSEA = .08). The developmental assets of adolescents directly affected happiness and also influenced happiness indirectly through gratitude. The findings from this study demonstrated the importance of gratitude as a mediating factor to increasing the happiness of adolescents.

6. Acknowledgement

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