Changes in Factors Affecting the Life Satisfaction of Multicultural Adolescents in Korea

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Abstract

Background: Currently, Korea is witnessing a steady increase in the number of adolescents from multicultural families. we aimed to identify the trends in life satisfaction changes and identifies the predictors of life satisfaction in multicultural adolescents at the grade level.

Methods: Data from the Multicultural Adolescent Panel Survey (2012-2015) were analyzed in this study. Accordingly, we performed multiple linear regression analysis with previously identified life satisfaction predictors in adolescents as the explanatory variables for each school year.

Results: Multicultural adolescents experienced higher life satisfaction in the sixth than fifth grade, and their satisfaction tended to decline after the sixth grade. Academic satisfaction, depression, self-esteem, ego-resilience, and family support significantly predicted the group's life satisfaction in fourth to eighth grades; however, since these factors changed across grade levels, their impact on life satisfaction also varied across grades.

Conclusion: These findings highlight the necessity of developing approaches that consider the varying factors and their grade-level effects on multicultural adolescents' life satisfaction and implementing effective policies and programs tailored to each grade level or developmental stage. These results provide valuable data to determine the timings and contents of such policies and programs.

Keywords: Adolescent; Child; Culture; Korea; Life satisfaction

Introduction

Life satisfaction refers to an overall level of satisfaction and encompasses various aspects of life(1). Life satisfaction is influenced by both internal and environmental factors according to different cultural and social features (2). A high life satisfaction is a psychological factor that protects individuals against negative life events that trigger stress (3), and it plays a crucial role in the achievement of psychological adjustment (4). Hence, life satisfaction is a significant considera-tion in adolescents, developmentally heavily influenced by psychological and environmental factors (4), which is a major predictor of life satisfaction in adulthood (5).

Korean adolescents exhibit the lowest life satisfaction among all Organization for Economic Cooperation and Development countries (6). The number of students from multicultural families is steadily increasing, despite the declining trend of the total student population in Korea (7). Overall,

137,000 elementary, middle, and high school students come from multicultural families, with elementary or middle-school students accounting for 91.5% of the total number (7). Multicultural adolescents experience various adversities caused by social bias, discrimination, cultural maladjustment, identity crisis, and maladjustment to school (8). This experience likely fosters a negative perception of life among these adolescents (9). Further, multicultural adolescents have been reported to exhibit lower life satisfaction compared to their non-multicultural counterparts (10).

Life satisfaction is altered by internal and environmental factors, rather than remaining fixed, over time(2, 5), earlier studies report that sociodemographic factors, health and emotional factors, and social factors (11-16), predict multicultural adolescents' life satisfaction. Since these are time-dependent predictors, multilateral studies should be conducted to examine both the changes and its varying effects over time.

Despite the assumption that the challenges faced by adolescents differ across grades, most of the earlier studies only performed cross-sectional analyses on factors in a single period (11, 14, 16). Moreover, although a few studies conducted longitudinal analyses to examine the changes that occur over time, the longitudinal analysis method is limited to consider various factors that affect life satisfaction (12, 13, 15).

The Korean government has been conducting the Multicultural Adolescents Panel Study (MAPS). Since the MAPS data include the changes in developmental periods accumulated over several years, identifying the predictors by period and examining changes over time.

In this context, we examined the changes in and predictors of life satisfaction among multicultural adolescents over time using MAPS data. Based on our findings, the changes in the effects of each factor are examined over time in order to present evidence to determine the priorities of interventions and policies.

Methods

Sample

The MAPS data for waves 2–5 (2012–2015) were used. The MAPS is an annual panel survey conducted by the Korean government to longitudinally follow-up the growth and development of multicultural adolescents. The participants were elementary school students in waves 2 and 3, and middle school students in waves 4 and 5. The data of 1,071 students with incomplete responses pertaining to the study's parameters were included in the final analysis.

Measures
Sociodemographic factors

The age, gender, the area of residence, and perceived household economic status were considered. The area of residence was divided into large city, small city, and eup/myeon (districts). Household economic status was rated on a 3-point Likert scale (from "good=1" to "bad=5").

Health and emotional factors

Academic satisfaction refers to perceptions of academic achievements, and it was measured using a 5-point Likert scale (from "very dissatisfied=1" to "very satisfied=5"). Self-rated health was measured using a 4-point Likert scale (from "very unhealthy=1" to "very healthy=5"). Body satisfaction was rated using 5 items (from "strongly disagree=1" to "strongly agree=5") (17). Depression was measured using the tool comprises 10 items with each item being rated on a 5-point Likert scale (from "strongly disagree=1" to "strongly agree=5") (18). Self-esteem was measured using the scale comprises 4 items, each item is rated on a 4-point Likert scale (from "strongly disagree=1" to "strongly agree=4") (19). Finally, ego-resilience was measured using the tool comprising 14 items, each item is rated on a 4-point Likert scale (from "strongly disagree=1" to "strongly agree=4") (20).

Social factors

Acculturative stress was measured using the tool, which comprises 10 items (21). Bicultural ac-

ceptance attitude was measured using the tool comprises 10 items (22). Perception of the area of residence was measured using a scale comprising items used in the Add Health Survey conducted by the Carolina Population Center after some modification (20). This scale consists of 6 items, and a high score indicates strong positive perception. Family support, friends' support, and teachers' support were measured using the Social Support Appraisal Scale modified and adapted by Han (23). These scales are composed of 7, 6 and 6 items, respectively and high scores indicate high perceived support. The social support factors were rated on a 4-point Likert scale (from "strongly disagree=1" to "strongly agree=4").

Life satisfaction

This scale comprises 3 items, rated on a 4-point Likert scale ("strongly disagree=1" to "strongly agree=4"). A high score indicates high life satisfaction (24).

Ethical Approval

This study was approved by the Institutional Review Board of University to which the author belongs. (IRB GU-201908-HRc-17-02-P).

Data analyses

Statistical analyses were performed using the SPSS version 21.0 (IBM Corp., Armonk, NY, USA). Multiple linear regression was performed for each year with the predictors of life satisfaction. We computed the variance inflation factor (VIF) and Durbin–Watson statistic. In this study, the VIF ranged from 1.01 to 2.29 and the Durbin–Watson statistic from 1.73 to 1.96, which confirmed the absence of multicollinearity and autocorrelation of residuals.

Results

Descriptive Analysis

The gender ratio remained similar throughout the years (Table 1). Approximately 45% of the partic-

ipants lived in a small or medium-sized city, and the most common household economic status was "high" (~50%) in all waves.

The participants' satisfaction with school grades gradually decreased over the years, from 2.80 in wave 2 to 2.40 in wave 5. Self-rated health showed only slight variations, and body satisfaction gradually increased. Further, depression slightly increased over the years. Self-esteem slightly increased from 12.68 in wave 2 to 12.75 in wave 5. Finally, ego-resilience slightly increased from 41.47 in wave 2 to 42.48 in wave 3 but did not further change significantly in waves 4 and 5 (Table 1, Fig. 1).

Acculturative stress slightly increased from 29.09 in wave 2 to 29.17 in wave 5. Bicultural acceptance attitude slightly decreased from 14.46 in wave 2 to 14.23 in wave 5. Perception about area of residence gradually decreased over the years, from 18.21 in wave 2 to 17.78 in wave 5. Family support increased from 22.25 in wave 2 to 22.31 in wave 5. Friends' support gradually increased over the years, from 27.28 in wave 2 to 28.86 in wave 5. Finally, teachers' support increased from 21.85 in wave 2 to 22.59 in wave 5 (Table 1, Fig. 1).

Participant's Life Satisfaction. Scores increased from 9.74 in wave 2 to 9.93 in wave 3 but decreased to 9.67 in wave 4 and 9.45 in wave 5 (Table 1).

Predictors of Life Satisfaction

Academic satisfaction, depression, self-esteem, ego-resilience, and family support were identified as the predictors of life satisfaction in all the years, from wave 2 to wave 5 (Table 2). Age and bicultural acceptance attitude were significant only in wave 2, and gender was significant only in waves 4 and 5. Body satisfaction and friends' support were significant in all the years except wave 2, and perception about community was significant in all the years except wave 5. Acculturative stress was significant in waves 2 and 5.

Table 1: Characteristics of multicultural adolescents.

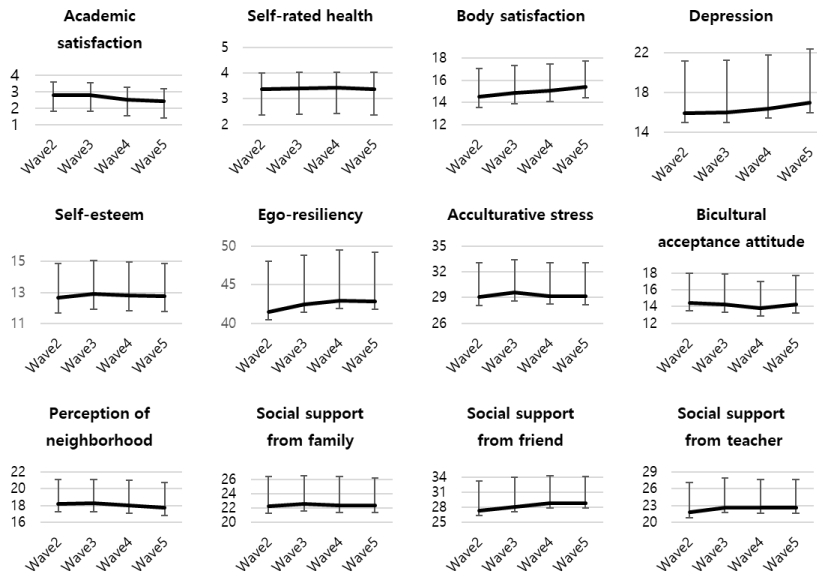| Variable		Wave 2		Wave 3		Wave 4		Wave 5	
		n or M	% or SD	n or M	% or SD	n or M	% or SD	n or M	% or SD
Gender	Male	521	48.6	521	48.6	521	48.6	521	48.6
	Female	550	51.4	550	51.4	550	51.4	550	51.4
Age(yr)	Under 1yr	83	7.7	83	7.7	83	7.7	83	7.7
	Appropriate age	950	88.7	950	88.7	950	88.7	950	88.7
	1yr old	38	3.5	38	3.5	38	3.5	38	3.5
Residental Area	Large city	269	25.1	268	25.0	269	25.1	271	25.3
	Small city	484	45.2	484	45.2	486	45.4	488	45.6
	Rural	318	29.7	319	29.8	316	29.5	312	29.1
Economic level of a households	Good	550	51.4	527	49.2	588	54.9	594	55.5
	Average	475	44.4	508	47.4	455	42.5	452	42.2
	Bad	46	4.3	36	3.4	28	2.6	25	2.3
Satisfaction with academic			2.80	0.77	2.79	0.77	2.52	0.77	2.40
Self-rated Health			3.37	0.62	3.39	0.64	3.42	0.61	3.37
Body Satisfaction			14.55	2.54	14.85	2.49	15.09	2.38	15.42
Depression			15.96	5.27	15.99	5.28	16.42	5.36	16.97
Self-Esteem			12.68	2.19	12.93	2.13	12.81	2.15	12.75
Ego-resiliency			41.47	6.59	42.48	6.34	42.91	6.57	42.87
Acculturative stress			29.09	4.00	29.63	3.80	29.21	3.88	29.17
Bicultural Acceptance Attitude			14.46	3.55	14.28	3.65	13.83	3.17	14.23
Perception of Neighborhood			18.21	2.93	18.29	2.83	18.03	3.00	17.78
Social support from family			22.25	4.17	22.58	3.89	22.36	4.03	22.31
Social support from friend			27.28	5.93	28.06	5.86	28.77	5.56	28.86
Social support from teacher			21.85	5.34	22.68	5.28	22.56	5.11	22.59
Life satisfaction			9.74	1.87	9.93	1.75	9.67	1.80	9.45

Fig. 1: Changes in health, emotional and social factors of multicultural adolescents by grade level

Table 2: Factors affecting life satisfaction by grade level in multicultural adolescents

	Wave 2					Wave 3					Wave 4					Wave 5				
	B	SE	β	t	P	B	SE	β	t	P	B	SE	β	t	P	B	SE	β	t	P
Contrast	8.26	1.52		5.43	<0.001	4.92	1.45		3.40	0.001	3.74	1.57		2.38	0.01	6.21	1.72		3.61	<0.001
Age	-0.37	0.13	-0.07	-2.93	0.003	-0.03	0.11	-0.01	-0.23	0.815	0.10	0.11	0.02	0.93	0.355	-0.11	0.12	-0.02	-0.93	0.351
Gender	-0.13	0.09	-0.04	-1.53	0.126	-0.01	0.08	-0.01	-0.09	0.927	-0.24	0.08	-0.07	-3.21	0.001	-0.20	0.08	-0.05	-2.49	0.013
Residential Area	0.05	0.06	0.02	0.86	0.388	0.08	0.05	0.03	1.47	0.143	0.02	0.05	0.01	0.29	0.772	0.05	0.02	0.02	1.11	0.268
Economic level of a households	-0.02	0.07	-0.01	-0.27	0.791	-0.03	0.07	-0.01	-0.50	0.621	-0.04	0.07	-0.01	-0.62	0.539	-0.03	0.07	-0.01	-0.38	0.706
Academic satisfaction	0.21	0.06	0.09	3.47	0.001	0.22	0.05	0.10	4.24	<0.001	0.12	0.05	0.05	2.36	0.018	0.26	0.05	0.11	4.97	<0.001
Self-rated Health	0.20	0.18	0.02	1.06	0.291	0.10	0.17	0.01	0.60	0.551	0.02	0.18	0.01	0.12	0.907	0.02	0.15	0.01	0.16	0.877
Body Satisfaction	0.02	0.02	0.02	0.79	0.430	0.04	0.02	0.06	2.44	0.015	0.06	0.02	0.08	3.44	0.001	0.05	0.02	0.06	2.42	0.016
depression	-0.08	0.01	-0.23	-8.75	<0.001	-0.11	0.01	-0.32	-11.95	<0.001	-0.11	0.01	-0.33	-12.89	<0.001	-0.13	0.01	-0.36	-13.50	<0.001
Self-Esteem	0.14	0.03	0.16	5.04	<0.001	0.09	0.03	0.10	3.49	<0.001	0.08	0.02	0.09	3.23	0.001	0.05	0.03	0.06	2.01	0.044
Ego-resiliency	0.04	0.01	0.13	3.84	<0.001	0.02	0.01	0.09	2.79	0.005	0.04	0.01	0.14	4.87	<0.001	0.06	0.01	0.20	6.76	<0.001
Bicultural Acceptance Attitude	0.03	0.01	0.06	2.05	0.040	-0.01	0.01	-0.01	-0.54	0.588	-0.01	0.01	-0.01	-0.36	0.719	0.02	0.01	0.03	1.25	0.211
Acculturative stress	-0.06	0.01	-0.11	-4.54	<0.001	-0.01	0.01	-0.02	-0.66	0.507	-0.02	0.01	-0.05	-2.15	0.032	-0.02	0.01	-0.03	-1.21	0.228
Perception of Neighborhood	0.05	0.02	0.08	2.96	0.003	0.04	0.02	0.07	2.84	0.005	0.05	0.01	0.08	3.54	<0.001	0.02	0.02	0.03	1.02	0.310
Social support from family	0.05	0.01	0.11	4.02	<0.001	0.07	0.01	0.15	5.53	<0.001	0.07	0.01	0.16	6.48	<0.001	0.06	0.01	0.11	4.25	<0.001
Social support from friend	0.01	0.01	0.05	1.41	0.158	0.04	0.01	0.14	4.63	<0.001	0.03	0.01	0.10	3.33	0.001	0.02	0.01	0.07	2.28	0.023
Social support from teacher	0.01	0.01	0.02	0.85	0.396	0.01	0.01	0.03	1.02	0.307	0.01	.09	0.01	0.25	0.799	0.01	0.01	0.01	0.08	0.933

Discussion

Our results revealed higher life satisfaction in sixth- than fifth-grade participants; however, life satisfaction tended to decline after the sixth grade. This is consistent with the results of another study (12). One reason for this trend can be the limited focus of policies supporting multicultural families. The Korean government enforced its second multicultural.

Family policy in 2013. The first round of policy implementation helped identify additional needs to provide support to school aged children; accordingly, the government included the implementation of advanced support to multicultural school-aged children as key policies in the second round of plans. However, since the majority of multicultural adolescents were elementary school students at the time of this policymaking, most of the policy programs targeted elementary school students (25). The current study's outcomes reflect the effects of such policies. Therefore, it highlights the necessity of continuously implementing diverse policies that do not focus on particular school levels.

In sociodemographic factors, male students showed significantly higher life-satisfaction than female from middle school onward. Interestingly, there are no gender specific differences in China and Japan (26), which have similar cultures to that of Korea. In Scotland, compared to female adolescents, life satisfaction of male adolescents is heavily influenced by family structure, particularly for those aged 13-15 years. The gender-specific differences may be attributable to the typical Korean family structure or cultural factors. This should be substantiated by additional multilateral studies.

Depression of health and emotional factors was found to be the most potent predictor at all grades, as previous studies has identified (27). Multicultural adolescents tend to experience higher levels of depression than their non-multicultural counterparts (28), and this tendency is believed to be influenced by various factors, developmental changes that occur in adolescence,

family environment, and interactive environment (29). The impact of depression increased with advancing grade levels in this study, as well. Hence, the management of depression and utilization of relevant programs should be prioritized to boost multicultural adolescents' life satisfaction.

Further, self-esteem and ego-resilience were significant factors at all grades, as indicated by earlier studies (12, 13). Self-esteem had a stronger impact on life satisfaction in elementary school students, whereas ego-resilience had a higher impact in middle-school students. Fifth graders from multicultural families did not welcome others' interest or attention directed toward them for being different; they wanted to keep their background a secret as much as possible and refused to participate in programs for multicultural families because they did not want to stand out (30). As shown here, educational programs for early adolescents should refrain from specifically targeting multicultural students by offering separate classes or providing special support, and they should be designed carefully to ensure that these students' self-esteem remains intact. During their transition from elementary to middle school, adolescents experience severe stress to adjusting to dramatic physical and mental changes. Hence, ego-resilience is a critical consideration for adolescents in middle school (31).

Furthermore, academic satisfaction was significant predictors in all grade levels, supporting previous findings (11). Body satisfaction was significantly associated with life satisfaction from the sixth grade onward. The physical changes associated with adolescence naturally enhance individuals' interest in one's appearance (32) which is probably the reason why body satisfaction influences life satisfaction in multicultural adolescents. The current study identified family support, a social factor, as a key predictor, as in earlier research findings (12, 15). An international comparison of adolescents' values reported that Korean adolescents have a high regard for familial values (26). Hence, their relationship with parents plays a crucial role in the lives and psychological well-being of Korean adolescents, and parents

have a pivotal influence on adolescents' behavior in the face of adversities (11). For multicultural adolescents, family support has the most potent impact on the emotional aspect (33), and family support is a critical promoter of a sense of stability in life (15). Family support had the greatest impact on life satisfaction during the transition of students from elementary to middle school. Hence, adequate policy support, such as the implementation of programs for parents during this period, should be provided to students.

Friends' support was significantly associated with life satisfaction from the sixth grade onward. Children are gradually move beyond their families and spend more time with their peers when children advance to higher grade levels (11). As a result, peer relationships become more important when adolescents advance to higher grade levels, probably affecting life satisfaction in multicultural adolescents.

Finally, bicultural acceptance attitude was the highest in the fifth grade, following which it tended to decline, and acculturative stress was the lowest in the fifth grade. In addition, while bicultural acceptance attitude and acculturative stress significantly affected life satisfaction in fifth graders, social factors related to culture did not have a significant impact on life satisfaction from the sixth grade onward. This highlights the need for a change in the policies affecting Korean multicultural adolescents. In Germany and Japan, such programs have specific targets, such as lower elementary children, and adolescents; further, programs are professionally designed and have diverse purposes (33). In contrast, most of these programs in Korea are the majority of the programs designed for adolescents simply teach the Korean language, provide help with school work, or engage students in cultural activities (33). Therefore, it is necessary to develop programs specifically tailored to particular developmental stages in adolescence or grade levels and to establish a new paradigm such that these programs can be systematically implemented as continuous rather than being offered as one-time programs.

This study is limited in that we could not differentiate immigrant adolescents from adolescents born in multicultural families in Korea, nor specify the causal relationships on the students' reduced life satisfaction. However, we clarified the factors that affect life satisfaction in multicultural adolescents by grade level. Hence, the strength of this study is that the findings broaden the current understanding of the predictors of life satisfaction in multicultural adolescents and, thereby, provide empirical data for organizations, including schools that provide support to multicultural adolescents to implement strategies to improve their life satisfaction in a timely manner.

Conclusion

We examined the trends of changes in life satisfaction according to grade level and identified the predictors of life satisfaction by grade level in multicultural adolescents using the MAPS data. Life satisfaction in multicultural adolescents tended to increase throughout elementary school but decline in middle school, and academic satisfaction, depression, self-esteem, and ego-resilience, family support, significantly predicted life satisfaction in all grade. Furthermore, the factors affecting life satisfaction underwent changes across grade levels, causing corresponding changes in their effects on life satisfaction. Policymakers should take these variations into consideration and enable the development of effective policies and programs tailored

The findings of this study serve as evidence for the development of grade-level–specific programs targeting multicultural adolescents and determining policy priorities.

Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Conflict of interest

The authors declare that there is no conflict of interests.

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