



Research article

Determinants of positive orientations of adolescents in Korean multicultural families based on the socio-ecological model

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ABSTRACT

The number of multicultural adolescents has been increasing globally, and their psychological well-being has received keen attention. The present study aimed to identify the factors affecting the positive orientations (i.e., self-esteem, optimism, and life satisfaction) of Korean adolescents from multicultural families based on the socio-ecological model.

This study comprised a cross-sectional survey that used data from the Multicultural Adolescents Panel Study by the National Youth Policy Institute in South Korea. In total, 1260 adolescents from Korean multicultural families participated. To assess how the factors contributed to positive orientations, we performed a hierarchical linear regression analysis.

Of the individual-level factors, gender, appearance satisfaction, social withdrawal, bicultural and multicultural attitudes, and academic achievement satisfaction affected the positive orientations of the adolescents. Among the relationship-level factors, their family support, relationships with their friends, and relationships with their teachers influenced their positive orientations; in particular, family support was the most influential factor.

The study identified influential factors on the positive orientations among multicultural adolescents. These findings can help healthcare, educational, and social service professionals develop programs to enhance the positive orientations of adolescents from multicultural families.

1. Introduction

The opportunities to encounter people from various cultural backgrounds have increased as the world has become more globalized. Accordingly, multicultural families formed by international marriages have increased [1,2]. In the United States of America (USA), approximately one in five families is a multicultural family that includes at least one foreign-born spouse [3].

South Korea (hereinafter Korea) has also witnessed this surge. International marriages, especially between native-born Korean men and women from Southeast Asian countries contribute to a considerable portion of the multicultural families in Korea [4]. Owing to a shortage of prospective native-born brides, native-born men with a relatively low socioeconomic status attempt to marry women from developing Asian countries through matchmaking agencies [1,4]. Consequently, children from multicultural families have significantly increased. A national report showed that there were approximately 212,000 children from multicultural families in Korea in 2017, a 4.8-fold increase from 2007 [5].

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Following this trend, healthcare, educational, and social service professionals in Korea have paid increasing attention to the well-being of multicultural families and their children. Multicultural children in Korea reportedly experience higher levels of stigma, alienation, prejudice, and various forms of school violence [6]. Korean society has a long history of emphasizing ethnic homogeneity and collectivistic values [7]; consequently, being perceived as different might affect Koreans negatively. Research has reported a pervasive discrimination and stigmatization in relation to ethnicity and race in Korean schools [6]. Therefore, investigating the psychological well-being of multicultural children is crucial. Specifically, further attention on the psychological well-being of adolescents from multicultural families is essential because these adolescents can experience dramatic changes in aspects that relate to emotional, physical, and social development [8]. In addition, challenges due to cultural differences or discrimination could influence the psychological well-being of such adolescents [9].

One previous study indicates that adolescents from multicultural families are at risk and report more psychosocial problems compared to the general population. Park et al. [2] demonstrated that adolescents born in multicultural families had higher levels of emotional (e.g., depression and suicidal ideation) and behavioral (e.g., alcohol and drug use) problems than their native counterparts. Moreover, another study comparing the mental health status of children of immigrant women to those of a native group reported more internalizing (e.g., anxiety and social withdrawal) and externalizing (e.g., conflict with others and the violation of social norms) behavioral symptoms among children of the immigrant group [10].

Identifying the aforementioned negative psychological issues for adolescents is critical, and the recent literature calls for scholars to pay keen attention to understand positive psychological orientations in adolescence [11]. Here, a “positive orientation” refers to an individual’s tendency to view and attach importance to the favorable aspects of themselves and their life, including life satisfaction, self-esteem, and optimism [12]. Thus, a positive orientation comprises various concepts that reflect an individual’s positive psychological features. The existing research supports that adolescents’ positive orientations serve as a prerequisite for their improved quality of life (QoL). Self-esteem and optimism were found to be protective factors for the depression of 283 aboriginal youth in Canada [13]. Furthermore, Santilli et al. [14] found a significant relationship between the positive orientations and career adaptability of 1259 Italian and Swiss adolescents.

Among Korean multicultural adolescents, positive orientations and the variables associated with them appear to be vulnerable. In one investigation from 2019, 441 multicultural adolescents showed lower levels of life satisfaction compared to 448 other Korean adolescents [15]. Moreover, another study revealed that 275 multicultural adolescents had lower levels of self-esteem and school resilience compared to 280 non-multicultural adolescents in Korea [16]. Given the aforementioned findings, it is imperative to clarify the factors that influence the positive orientations of multicultural adolescents. This knowledge can help providers develop appropriate interventions to enhance adolescents’ positive orientations in close relation to their overall QoL.

Researchers have posited that the societal and environmental factors surrounding multicultural adolescents should be considered to understand the psychological adaptation of these children based on their distinctive backgrounds [17]. The socio-ecological model can be used to identify such factors and, in particular, those that affect the positive orientations of adolescents from multicultural families [18]. The socio-ecological model enables an understanding of how the physical and social environments of individuals interact with said individuals, thereby resulting in health behavior patterns. The socio-ecological model comprises four levels: individual, relationship, community, and society [18]. The individual level considers factors concerning biological and personal history (e.g., age) [18]; the relationship level looks at close relationships that influence the individuals’ experiences (e.g., family members and/or peers) [18]. The community level considers the individuals’ settings (e.g., schools and neighborhoods wherein societal relationships form) [18]. Finally, the society level includes sociocultural norms that affect the individuals’ health and behaviors [18].

Based on the socio-ecological model, the current study aimed to explore the factors that contribute to the positive orientations of Korean multicultural adolescents. First, we revealed the nature of the adolescents’ positive orientations and the factors at each level (i.e., individual, relationship, community, and society). Second, we identified differences in the positive orientations by general characteristics and the relationships between the positive orientations and each general characteristic. Finally, we examined which factors contribute to the adolescents’ positive orientations through a hierarchical linear regression analysis.

2. Materials and methods

2.1. Study design

To explore the determinants of Korean adolescents’ positive orientations, we conducted a cross-sectional study based on the socio-ecological model [18] and used data from the Multicultural Adolescents Panel Study (MAPS) by the National Youth Policy Institute (NYPI) [19].

2.2. Setting and sample

To identify the developmental characteristics of Korean adolescents from multicultural families, the NYPI systematically surveyed a nationally representative sample of adolescents. Performing the sampling process comprised two steps: stratified random sampling and proportional stratified sampling. The first survey took place in 2010, with annual follow-up waves [19]. Our study used the data from the seventh MAPS panel survey in 2017 with 1260 adolescents.

2.3. Measures

2.3.1. Positive orientation

Positive orientation refers to an individual's tendency to attach importance to life satisfaction, self-esteem, and optimism [12]. Here, we calculated positive orientation as the sum of nine self-esteem [20] and three life satisfaction [21,22] questions. Optimism was assessed by one of the self-esteem questions [20], "I have a positive attitude toward myself." Positive orientation had a value between 12 and 57 points; the higher the score was, the more the positive orientation was. The Cronbach's α of the positive orientation was 0.88.

2.3.2. Individual-level factors

Individual-level factors included age, gender, location, social withdrawal, bicultural/multicultural attitude, appearance satisfaction, and academic achievement satisfaction. To assess social withdrawal, we used five questions that employed a four-point Likert scale [23]. The Cronbach's α of the social withdrawal was 0.91. The questions of the bicultural attitudes [24] and multicultural attitudes [23,25] comprised 10 and five items, respectively, all on a four-point Likert scale. The Cronbach's α values of the bicultural and multicultural attitudes were 0.75 and 0.89, respectively. Finally, we assessed appearance satisfaction [26] and academic achievement satisfaction [27] using six questions and one question, respectively, all on a four-point Likert scale. The Cronbach's α of the appearance satisfaction was 0.80.

2.3.3. Relationship-level factors

Relationship-level factors included family support, relationships with friends, and relationships with teachers. Family support included seven questions on a four-point Likert scale [28]. The Cronbach's α of family support was 0.95. To assess the individuals' relationships with friends and teachers, we employed seven and three questions, respectively, all on a four-point Likert scale [28]. The Cronbach's α values of relationships with friends and with teachers were 0.91 and 0.89, respectively.

2.3.4. Community- and society-level factors

Community-level factors included supportive persons in the community. Thus, we investigated the presence of any adults who helped in the community with two types of responses: yes (assigned a score of 1) or no (assigned no score) [27]. Society-level factors included the experience of policy support for multicultural families [27]. The adolescents who received such support were assigned a score of 1; those who did not were not assigned a score.

2.4. Statistical analysis

To analyze the data, we used the STATA 16.1 program; further, we calculated descriptive statistics for the general characteristics and positive orientations. In addition, we performed a *t*-test and an analysis of variance to confirm the differences in the positive orientations by the general characteristics. To ascertain the relationships among the variables, we conducted a Pearson's correlation analysis. Finally, we carried out a hierarchical linear regression analysis to assess the factors' association with positive orientation.

2.5. Ethical approval

The seventh MAPS data used herein were collected after obtaining Statistics Korea's approval and consent from the NYPI.

Table 1
General characteristics ($N = 1260$).

Variable	Category	<i>n</i>	%	Mean \pm SD	Min/Max	
Individual	Age			15.97 \pm 0.35	15/19	
	Gender	Boy	615	48.8		
		Girl	645	51.2		
	Location	City	319	25.3		
		Suburban	560	44.4		
		Urban	381	30.3		
		Appearance satisfaction			2.51 \pm 0.38	1/4
	Social withdrawal			11.91 \pm 3.60	5/20	
	Academic achievement satisfaction			2.32 \pm 0.71	1/4	
Relationship	Bicultural attitudes			2.91 \pm 0.40	1/4	
	Multicultural attitudes			3.17 \pm 0.54	1/4	
	Family support			3.16 \pm 0.55	1/4	
	Relationships with friends			4.00 \pm 0.72	1/5	
	Relationships with teacher			3.84 \pm 0.74	1/5	
Community	Supportive person in community	Yes	337	26.8		
		No	923	73.2		
Society	Experience of policy support	Yes	233	18.5		
		No	1027	81.5		
Positive orientation				42.94 \pm 6.77	19/57	

Moreover, we obtained approval for an exempt review from the University's Institutional Review Board (No. 1044396-202102-HR-027-01).

3. Results

3.1. General characteristics

The mean age of the adolescents was 15.97 years with 645 girls (51.2 %) and 615 boys (48.8 %) (Table 1). Further, the average scores for appearance satisfaction and social withdrawal were 2.51 and 11.91, respectively. For bicultural and multicultural attitudes, the mean scores were 2.91 and 3.17, respectively. The participants averaged a score of 2.32 for academic achievement satisfaction. The average scores of family support, relationships with friends, and relationships with teachers were 3.16, 4.00, and 3.84, respectively. Moreover, 337 (26.8 %) and 223 (18.5 %) adolescents had a supportive person in the community and experienced policy support, respectively. The average score for positive orientation was found to be 42.94. The skewness of all variables fell within the -2 to $+2$ range, while the kurtosis values were within -7 to $+7$. The kurtosis value for the age variable exceeded 7, which can likely be attributed to the fact that 89.0 % of the participants in this study were adolescents, predominantly aged 16.

3.2. Differences in positive orientations according to the factors at each level

Differences in the positive orientations were noted for gender ($t = -3.95, p < .001$) as an individual-level factor and the presence of a supportive person in the community ($t = -3.66, p < .001$) as a community-level factor (Table 2). Positive orientation did not significantly differ by a society-level factor (the experience of policy support for multicultural families). Table 2 shows the results regarding the differences in positive orientations by the adolescents' characteristics in full.

3.3. Relationships between positive orientations according to the factors at each level

At the individual-level, social withdrawal ($r = -0.37, p < .001$), bicultural ($r = 0.37, p < .001$) and multicultural attitudes ($r = 0.24, p < .001$), appearance satisfaction ($r = 0.39, p < .001$), and academic achievement satisfaction ($r = 0.27, p < .001$) were significantly correlated with positive orientation (Table 3). Moreover, at the relationship-level, family support ($r = -0.51, p < .001$), relationships with friends ($r = -0.48, p < .001$), and relationships with teachers ($r = 0.43, p < .001$) were significantly correlated with positive orientations.

3.4. Determinants of the positive orientations of multicultural adolescents

First, we established a baseline model including all individual-level factors, and all the factors predicted the positive orientations (Model 1) (Table 4). Second, we generated Model 2, which included all the factors at individual and relationship-levels; all the factors were significant. For the final model, we included all the factors at all the levels except for the society-level factor, which did not differentiate the positive orientations. Model 3 evinced that the community-level factor did not predict the positive orientations. Significant predictors for the positive orientations included gender ($\beta = 0.09, p < .001$), appearance satisfaction ($\beta = 0.20, p < .001$), social withdrawal ($\beta = -0.20, p < .001$), bicultural ($\beta = 0.09, p < .001$) and multicultural attitudes ($\beta = 0.05, p = .039$), and academic achievement satisfaction ($\beta = 0.15, p < .001$) at the individual-level as well as family support ($\beta = 0.27, p < .001$), relationship with friends ($\beta = 0.18, p < .001$), and relationship with teachers ($\beta = 0.07, p < .001$) at the relationship-level. Of these, family support was the most influential factor on positive orientation.

4. Discussion

Our study investigated the factors that influence the positive orientations of multicultural adolescents in Korea using national data. The strength of this study was its notable conceptual grounding, which was based on a well-established model: the socio-ecological model. The socio-ecological model provides a valuable structure at different levels to identify influential factors on adolescents'

Table 2
Differentiation of positive orientation and individual-, community-, and society-level factors ($N = 1260$).

Variable	Category	M \pm SD	t/F (df)	p	Cohen's d	
Individual	Gender	Boy	43.71 \pm 6.68	-3.95	<.001	.22
		Girl	42.21 \pm 6.78			
	Location	City	42.79 \pm 6.55	3.14 (2)	.208	.00
		Suburban	42.52 \pm 7.02			
Community	Supportive person in community	Urban	43.70 \pm 6.53	-3.66	<.001	-.23
		Yes	42.52 \pm 0.22			
		No	44.09 \pm 7.24			
Society	Experience of policy support	Yes	42.83 \pm 7.09	0.28	.782	.02
		No	42.97 \pm 6.70			

Table 3
Correlation of positive orientation and individual-, relationship-level factors ($N = 1260$).

Variable		<i>r</i>	<i>p</i>
Individual	Age	−.00	.969
	Appearance satisfaction	.39	<.001
	Social withdrawal	−.37	<.001
	Bicultural attitudes	.37	<.001
	Multicultural attitudes	.24	<.001
	Academic achievement satisfaction	.27	<.001
Relationship	Family support	.51	<.001
	Relationships with friends	.48	<.001
	Relationships with teacher	.43	<.001

positive orientations. The current findings indicate that various variables at individual and relationship levels played a pivotal role in explaining the positive orientations of multicultural adolescents.

Specifically, at an individual level, adolescents' gender, appearance satisfaction, academic attainments, social withdrawal, and bicultural/multicultural attitudes predict their positive orientations. These findings are concurrent with those of prior studies. Boys typically reveal higher levels of the positive orientations, including life satisfaction, self-esteem, and resilience, than girls regardless of their multicultural background [29,30], which accords with the present findings. Moreover, adolescent girls may experience more conflicts with exaggerated cultural norms regarding body image, especially thinness, which could contribute to the reduction of life satisfaction and self-esteem [31].

Generally, positive body image and appearance satisfaction relate to individual positive psychological outcomes among adolescents, such as self-esteem [32] and subjective well-being [33]. In addition, this study found a relationship between the appearance satisfaction and the positive orientations of multicultural adolescents. These results should be taken seriously within a cultural context that emphasizes attractive looks; this is the case in Korea, where a competitive atmosphere pervades all aspects of society, even with respect to individual looks, as Korea has undergone rapid and compressed industrialization and urbanization [34]. Notably, Korea has the third-highest rate of plastic surgery worldwide [35], and excessive expectations regarding individual looks could lead to appearance discrimination and body image distortion for Korean adolescents [34]. In addition, collectivism and the high value of being a monoethnic nation [7], as traditionally emphasized by Koreans, may amplify appearance discrimination based on racial differences. Korean multicultural adolescents report lower levels of appearance satisfaction [32]. Thus, maintaining and improving a positive self and body image among multicultural adolescents is important for enhanced psychological health.

In addition to the importance of adolescents' perception of their appearances, internal traits of social withdrawal and shyness are noteworthy for adolescents' positive orientations. Empirical studies, including the current investigation, have demonstrated that social withdrawal or shyness is associated with low self-esteem [36]. Children become exposed to more social interactions (e.g., part-time work, peers, and romantic relationships) while experiencing the transition from childhood to adolescence. Social interactions contribute to the construction of self-concept. Theoretically, people construct a picture of themselves based on how others view them (i.e., through social interactions, adolescents ascertain others' reactions and make assessments) [36,37]. Expecting a positive development of self-concept would be difficult if social withdrawal prevents adolescents from establishing adequate social connections.

Numerous studies support the significant relationship between the school performance and positive orientations of adolescents [38, 39], as found in the present research. These results should be highlighted within the Korean culture of higher education fever. Education fever refers to high levels of academic expectations, and the phenomenon of parental investment in education in Korea is known worldwide [40]. Many Korean parents willingly spend substantial money and time for their children to attain a higher level of academic performance [40]. Accordingly, the achievement gap in education has widened among families with different socioeconomic statuses [40]. Such a gap could negatively influence adolescents' psychological well-being. Multicultural adolescents are more likely to experience this educational gap because multicultural families often report financial vulnerability [29]. Healthcare, educational, and social service providers should be aware of the educational issues embedded in Korean society when developing interventions that can enhance the psychological outcomes of multicultural adolescents.

Furthermore, the findings herein confirm that the adolescents' attitudes toward cultures are associated with their psychological outcomes. In other words, multicultural adolescents with more positive perceptions of bicultural/multicultural ethnicity showed higher levels of positive orientations. These results are consistent with previous findings [17,41]. Chung et al. [17] and Lee et al. [41] investigated multicultural adolescents living in Korea. The former found significant relationships between high biethnic affirmation (e.g., feeling proud of being a member of an ethnic group) and optimal life satisfaction [17]. The latter reported that adolescents with high ethnic regard exhibited higher levels of self-esteem and school adjustment [41]. These results evince the importance of environments that encourage adolescents to invest in their bicultural/multicultural ethnicity.

In Korea, Multicultural families are commonly composed of Korean husbands and non-Korean wives, primarily from Southeast Asian countries, including China and Vietnam [42]. Although adolescents from these families may be grouped under the general Asian category, individuals of different ethnic backgrounds experience frustration due to the tendency to homogenize the diverse sub-ethnicities within the Asian category [43]. It is essential to engage with multicultural adolescents in a manner that recognizes and respects the distinct differences in their ethnic heritage practices. However, Korean society shows relatively low levels of cultural competence (e.g., unfavorable perceptions of immigrants or low levels of multicultural acceptance) [11]. Instead of esteeming individuals' inherent ethnicity, an assimilation-oriented approach is highly preferred in Korean society [41]. Moreover, multicultural

Table 4
Factors affecting the positive orientation of multicultural adolescents (*N* = 1260).

Variable	Category	Model 1					Model 2					Model 3				VIF	
		b/S.E/β/t/p					b/S.E/β/t/p					b/S.E/β/t/p					
Gender	Girl (Reference)																
	Boy	-1.48	.31	.11	4.80	<.001	-1.17	.28	.08	4.21	<.001	-1.17	.28	.09	4.20	<.001	1.06
Appearance satisfaction		4.27	.42	.24	10.20	<.001	3.51	.38	.20	9.21	<.001	3.51	.38	.20	9.19	<.001	1.17
Social withdrawal		-2.69	.21	-.29	-12.61	<.001	-1.88	.20	-.20	-9.51	<.001	-1.88	.20	-.20	-9.51	<.001	1.11
Bicultural attitudes		4.25	.42	.25	10.16	<.001	1.52	.41	.09	3.72	<.001	1.52	.41	-.09	3.71	<.001	1.43
Multicultural attitudes		1.34	.30	.11	4.41	<.001	0.57	.28	.05	2.07	.039	0.57	.28	-.05	2.06	-.039	1.21
Academic achievement satisfaction		-1.73	.22	.18	7.98	<.001	-1.43	.20	.15	7.25	<.001	-1.43	.20	-.15	7.23	<.001	1.08
Family support							3.39	.30	.27	11.33	<.001	3.39	.30	.27	11.33	<.001	1.46
Relationships with friends							1.67	.23	.18	7.16	<.001	1.67	.23	.18	7.15	<.001	1.54
Relationship with teacher							0.64	.22	.07	2.88	.004	0.64	.22	.07	2.87	.004	1.51
Supportive person in community	No (Reference)																
	Yes											0.02	.31	.00	0.06	.955	1.04
		<i>F</i> = 127.62, <i>p</i> < .001 <i>R</i> ² = .38, Adj <i>R</i> ² = .38					<i>F</i> = 139.87, <i>p</i> < .001 <i>R</i> ² = .50, Adj <i>R</i> ² = .50					<i>F</i> = 125.8, <i>p</i> < .001 <i>R</i> ² = .50, Adj <i>R</i> ² = .50					

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families in Korea tend to dissuade attempts at engaging with the cultures of foreign-born Korean parents (e.g., the discouragement of using non-native language and cooking non-native food) [44]. Nevertheless, the current evidence shows that adolescents who positively perceive themselves as biethnic evince higher levels of positive orientations. Multicultural adolescents who live within familial environments that are more accepting of and respect the immigrant parents' cultures show high self-esteem [41,45]. Therefore, fostering bicultural and multicultural acceptance of multicultural adolescents is essential for optimal psychological outcomes.

The results of the variables at the relationship level indicate that family support and relationships between adolescents and friends or teachers are closely linked to the adolescents' positive orientations. In particular, family support was the most powerful factor in this study. Similarly, another investigation identified the longitudinal cross-lagged effects between multicultural adolescents' self-esteem and family support [46]. Moreover, multicultural adolescents who experienced positive family support exhibit higher levels of self-esteem [47].

Like the importance of familial relationships, the quality of relationships in schools is also valuable for understanding adolescents' psychological outcomes. The research suggests that support from peers and teachers significantly influences the academic success, academic engagement, and emotional well-being of adolescents [48]. Kim and Yoon [49] noted that support from peers and teachers led to positive self-esteem and life satisfaction for multicultural adolescents [49]. In addition, an investigation of 2373 adolescents found positive relationships between life satisfaction and family climates as well as classroom climates [50]. During adolescence, social bonds with family members transform into relationships with peers. Simultaneously, teachers play a significant role for adolescents, helping them ensure a healthy distance from their parents for the positive development of their identity and self-concept [48]. Multicultural adolescents are no exceptions for the effects of peer and teacher support.

Overall, the most influential factors that affect the positive orientations of multicultural adolescents found herein are commonly identified factors that affect general adolescents' psychological outcomes (e.g., appearance satisfaction, academic achievements, and peer and family support). Overlooking the common factors and paying excessive attention to multicultural uniqueness alone would be ineffective for improving multicultural adolescents' positive orientations. Furthermore, such an approach may strengthen the perception that multicultural adolescents are a disparate group. A balanced approach that considers both multicultural aspects and common ones is warranted when developing programs to improve the positive orientations of multicultural adolescents. In addition, including the individuals around multicultural adolescents (e.g., peers and teachers) in such programs would be beneficial and could attenuate an impression of alienation, stigma, or discrimination between multicultural and mainstream groups [49]. Some possible examples include international student exchange programs or education that increases multicultural awareness by targeting both multicultural and non-multicultural adolescents.

The present research has some limitations. This study employed pre-pandemic data, necessitating future research to assess the influence of COVID-19 on the positive orientation of multicultural adolescents using post-pandemic data. The outcomes of this study offer foundational information regarding adolescents' positive orientation, enabling comparative analyses with post-COVID-19 data. The variables used in the study may not fully reflect our intentions or theoretical concepts, as is frequently identified by the pitfalls of the secondary analysis [51]. None of the theoretical frameworks herein found significant variables among the community- and society-level factors, possibly because of the small number of variables in the secondary analysis, which was caused by the lack of variables at those levels. Thus, more in-depth research is required that has higher numbers of variables at the community- and society-levels. Moreover, inferring directionality is impossible for this cross-sectional survey. Further studies should perform longitudinal research to possible determinants. Thus far, studies have used various tools to measure the concept of positive orientation, which makes it difficult to compare the results concerning positive orientation. Therefore, for the purposes of comparative research, a consensus is required on the most appropriate measurements.

5. Conclusions

Guided by the socio-ecological model, we identified the factors that influence the positive orientations of adolescents from multicultural families. Our study highlighted the significant relationships between the adolescents' positive orientations and various individual and relationship-level factors, including multicultural attitudes and family support; the influential factors that affect multicultural adolescents appear to be those that commonly affect adolescents in general. The present findings support the evidence that professionals should develop interventions with more integrated approaches that consider both multicultural and general adolescent characteristics to enhance the positive orientations of multicultural adolescents.

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Data availability statement

The data underlying this article were provided by Statistics Korea by permission. Data will be shared on request to the corresponding author with permission of Statistics Korea.

Ethics declarations

- This study was reviewed and exempted by Gachon University Institutional Review Board, with the exemption number: [1044396-202102-HR-027-01].
- Informed consent was not required for this study because this is the secondary analysis using the data from the Multicultural Adolescents Panel Study by the National Youth Policy Institute.

Additional information

No additional information is available for this paper.

CRedit authorship contribution statement

Wonjung Noh: Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Formal analysis, Data curation, Conceptualization. **Anna Lee:** Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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