



Research article

The effect of social withdrawal on life satisfaction among multicultural adolescents: The mediating and moderating effects of parental support

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A B S T R A C T

Background: The number of multicultural adolescents is continuously increasing, and they tend to experience more psychological difficulties than their non-multicultural peers.

Objective: This study investigates the mediating and moderating effects of parental support on the relationship between social withdrawal and life satisfaction among multicultural adolescents.

Methods: This secondary data analysis utilized the Multicultural Children & Adolescents Panel Survey conducted by the National Youth Policy Institute. The analysis included data from 2018 and involved 1197 multicultural adolescents. The data were analyzed using the R-Statistics 4.1.1 program.

Results: Social withdrawal and parental support had a detrimental impact on life satisfaction among multicultural adolescents. Parental support also played a partial mediating role in the connection between social support and life satisfaction. Furthermore, parental support was a moderating factor capable of mitigating the negative influence of social withdrawal on life satisfaction.

Conclusion: Measures to reduce social withdrawal and increase parental support are very effective in improving the life satisfaction of multicultural adolescents. More focused professional intervention measures for social withdrawal and parental support must be considered when seeking and preparing support measures to improve the life satisfaction of multicultural adolescents.

1. Introduction

1.1. Background

As the world has globalized, opportunities to meet people from different cultural backgrounds have increased. Accordingly, the number of multicultural families formed through international marriages is increasing, including in South Korea. International marriages, especially between Korean men and women from Southeast Asian countries, account for a significant portion of multicultural families in Korea. Due to a shortage of native-born prospective brides, indigenous men with relatively low socioeconomic status seek to marry women from developing Asian countries through matchmaking agencies [1].

According to 2023 immigration statistics and integrated statistics on foreigners staying in the country [2], the number of married immigrants increased by more than 150,000 every year from 2012 until 2020. As the number of multicultural marriages has increased over the last 20 years, the number of multicultural households has risen to 367,775, the multicultural population has reached 1,093,228, and the total number of multicultural children has grown to 263,379, according to the 2023 Statistics Korea Population and Housing Census. As immigrants continue to stay in the country for extended periods and as more married and naturalized immigrants reside in South Korea for more than 10 years, the number of children in multicultural families is rising. This trend is leading to the

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emergence of multicultural adolescents who may struggle to adapt to school life, potentially causing various social side effects.

Adolescence is an important period during which individuals grow physically, psychologically, and socially as they explore their identity and place in society [3]. Cultural differences and difficulties can impact the psychological well-being of adolescents. In particular, multicultural and immigrant adolescents are likely to experience conflicts between their national culture and the mainstream culture during the cultural adaptation process [4]. Multicultural adolescents in Korea experience a variety of psychological problems, such as stigma, alienation, and prejudice. Because Korea has prominent national characteristics that emphasize ethnic homogeneity and collectivist values [5], the perception that multicultural adolescents are different can negatively impact this group.

The Korean culture is a new environment to which multicultural adolescents are suddenly exposed. They may struggle to form social relationships because they look different from others and have limited language skills, which can make them feel intimidated and fear that others will notice their embarrassing appearance [6]. This causes multicultural adolescents to become socially withdrawn, which can negatively impact their life satisfaction [7]. Multicultural adolescents also often experience social withdrawal due to cultural differences in their relationships with peers and living environments [8]. However, little is known about potential protective factors that may mitigate the detrimental effects of social withdrawal [9].

This study contributes to the literature by investigating parental support as a mediating and protective factor in the relationship between social withdrawal and life satisfaction among multicultural adolescents. Parents are crucial in influencing their children's development. Several studies have suggested that parental support has as much of an impact on children's adaptation to school life as household income, parents' educational background, and employment status [10].

The higher the parents' parental efficacy and the better the adolescent's social support environment, the more positively the adolescent perceives the parenting environment. This suggests that high parental efficacy in multicultural families can positively impact adolescents' upbringing [11]. Studies related to the social withdrawal of multicultural adolescents include a study on Chinese immigrant adolescents [12], a qualitative study on multicultural adolescents who refused to attend school because they felt alienated [13], and research on Latino adolescents. Additionally, a qualitative study examined how immigrant adolescents adapt to social exclusion [14], and another study investigated factors that influence the ethnic rejection experienced by minority groups [15]. Furthermore, research on social withdrawal and life satisfaction among multicultural adolescents in Korea has analyzed the effects of cultural stress and school-related factors [7].

However, little research has analyzed the mediating and protective factors of parental support in the relationship between social withdrawal and life satisfaction among Korean multicultural adolescents. Thus, preliminary interventions that verify the mediating effect of parental support on the relationship between social withdrawal and life satisfaction among multicultural adolescents may yield meaningful results that can aid this population's development. Therefore, this study aims to identify the relationship between social withdrawal and life satisfaction to improve the development and quality of life of multicultural adolescents. Additionally, this study aims to identify parental support as a mediating and controlling variable.

1.2. Literature review

Multicultural families refer to various types of families composed of individuals from different ethnicities or cultural backgrounds. While Korea does not have distinct ethnic groups with diverse cultures, intermarriage is common. Most multicultural families in Korea involve marriages between Korean men and foreign women. More than 70 % of married immigrant women come from Southeast and Northeast Asian regions. Aside from religious reasons, most individuals immigrated to be able to provide economic assistance to their families in their home countries. This can be viewed as a defining feature of Korea's multicultural society, distinguishing it from Western societies [16].

The term "multicultural adolescents" refers to children from multicultural families who are going through adolescence. Multicultural adolescents are not only in the "grace" stage of development, which is the intermediate stage between childhood and adulthood, but they may also face additional challenges adapting culturally as an ethnic minority [17].

For them, differences in the cultural backgrounds of Korean adolescents can act as an important stress factor, and having a multicultural background viewed as a minority can negatively affect individual self-esteem [18]. Additionally, being a marginal figure rather than a major one, one can experience psychosocial stress due to a sense of alienation between two cultures [19].

Multicultural individuals may feel intimidated socially due to differences in appearance from their friends and a sense of cultural alienation [17]. This feeling of withdrawal may not be outwardly apparent, but if internalized, can negatively affect social and emotional development, leading to self-isolation within social networks. Feeling cultural prejudices or experiencing discrimination in environments where non-multicultural adolescents frequent, such as schools or the greater community, can increase stress in multicultural adolescents. This, in turn, may result in increased social withdrawal [19].

Adolescents who are highly socially withdrawn are insensitive to the expected reactive behavior of others in situations where they need help, such as stressful situations. They tend to avoid interaction with others, leading to loneliness, which in turn causes them to socially isolate themselves [20]. Additionally, peer relationships can make children more sensitive to everyday situations, causing them to feel anxious due to heightened arousal, and leading them to potentially isolate themselves further to avoid such situations [21]. For multicultural adolescents, family is also very important. The family is the most basic social unit that humans first experience and the foundation that has the greatest influence on social, physical, and cognitive development.

Humans first learn about human relationships at home from their parents, and the relationship between parents and children significantly impacts human growth and development [22]. Parental support encompasses various aspects such as nurturing, love, acceptance, and attachment. This involves parents motivating and praising their children while also offering physical affection [23]. Parental support provides children with a sense of security when they are with their parents and fosters positive interactions [24].

Therefore, the importance of parents' abilities and presence as a support group in multicultural family housing is increasing. Prior studies have also mentioned that the relationship between parents and children is the first relationship that humans form, and parents are the ones who provide children with life experiences [25]. Additionally, parental support helps children with psychological adjustment, develops their problem-solving skills, and helps them overcome frustrations [26].

Parental support also helps children believe that they are loved and cared for, have pride, and believe that they are members of a network that communicates and has responsibilities [27]. Therefore, it is said that family support during adolescence helps with self-esteem and problem-solving, and prevents problem behavior [28].

In particular, for adolescents from multicultural families, parental support plays a crucial role in shaping their self-image and fostering a sense of social belonging. However, predictably, multicultural adolescents will have difficulty adapting to the different cultures of their foreign parents, communicating with them due to language barriers, and receiving support from them [29]. Therefore, this study will further clarify the importance of parental support and provide foundational data for developing strategies to enhance parental support.

Life satisfaction is an individual's subjective feeling of satisfaction with their life [30]. Life satisfaction in adolescence is crucial because it not only predicts and shapes attitudes toward life from adolescence to adulthood [31], but also acts as a protective factor against the adverse effects of life events [32]. Adolescents' life satisfaction must be viewed from various perspectives, including themselves, as well as their friends, school, and community environment. In particular, multicultural adolescents' life satisfaction is related to various factors, such as culturally different home life, school life, and perception in the community, in addition to these perspectives [33]. Adolescence is a period marked by numerous changes that swiftly propel individuals toward adulthood. Consequently, this phase can be stressful and bewildering, potentially resulting in decreased life satisfaction. Nevertheless, navigating this transition period successfully and entering adulthood can enhance overall life satisfaction. Notably, past studies have indicated that immigrants exhibit less life satisfaction compared to non-immigrants [34], while other research has found no significant differences [35].

In the case of multicultural adolescents, various factors affect life satisfaction due to the uniqueness of having parents from different cultures. These factors include relative environmental factors, family dynamics, and especially school adaptability [36]. Additionally, research results have reported that non-multicultural adolescents may experience low life satisfaction due to the discriminatory perception of multicultural adolescents [37]. Therefore, there is a need to focus on the life satisfaction of multicultural adolescents.

1.3. Aims

This study aims to identify the relationship between social withdrawal and life satisfaction to improve the development and quality of life of multicultural adolescents. Additionally, this study aims to identify parental support as a mediating and controlling variable.

1.4. Research hypothesis

- Social withdrawal will have an impact on the life satisfaction of multicultural adolescents
- Parental support will have a mediating effect on the impact of social withdrawal on life satisfaction in multicultural adolescents.
- Parental support will have a moderating effect on the impact of social withdrawal on the life satisfaction of multicultural adolescents.

1.5. Limitation

This study is a quantitative study using secondary data. Therefore, a limitation is that it did not offer opportunities for multicultural adolescents to engage in more meaningful reflection through qualitative research methods.

1.6. Theoretical Basis

Social withdrawal, commonly experienced during adolescence, is reported to be a factor that reduces life satisfaction [38]. In particular, multicultural adolescents are more likely to exhibit social withdrawal compared with their peers. This tendency can be attributed to factors such as having multicultural parents, having a low socioeconomic status, facing language barriers, and experiencing school maladjustment. The social withdrawal observed in multicultural adolescents often leads to decreased life satisfaction which stems from a weak sense of self-identity and withdrawal during adolescence [39]. These various factors chronically contribute to social isolation among multicultural adolescents, ultimately negatively impacting their life satisfaction [40,41]. Previous studies have revealed that social withdrawal positively affects mental health, such as by reducing depression [42], mobile phone dependence, social anxiety [43], and problem behaviors such as internet addiction [44]. Social withdrawal is also associated with declines and inequalities in physical and mental health among vulnerable and minority groups, such as multicultural immigrants. Notably, the Hispanic health paradox demonstrates more positive health benefits for Latino immigrants, but this association is more directly influenced by social networks [45]. In a study of 11 to 15-year-olds in nine European countries, social withdrawal, as indicated by higher levels of loneliness, was associated with poorer physical health and well-being. Lower well-being was also associated with lower levels of social integration [46]. This suggests a negative cycle in which social withdrawal reduces life satisfaction.

In general, prior studies have shown that the more supportive a parent's parenting attitude is, the higher the life satisfaction of their child [47,48]. Yet, in a prior study targeting general adolescents, authoritarian parenting style had a strong negative effect on

adolescents' life satisfaction in each of the 10 observed countries. This suggests that exposure to authoritarian parenting styles is generally undesirable for adolescents' life satisfaction [49]. Parenting that is overly controlling and directive does not help children alleviate their fear of social relationships and prevents them from resolving interpersonal problems independently [50]. Children who receive excessive interference and instructions from their parents are more likely to become socially withdrawn compared to children who have not experienced such a parenting style [50]. Studies examining adolescents' emotional relationships with parents with controlling parenting attitudes, and concepts related to social withdrawal, have found increased personal aggression, emotional invalidation, and overprotection [51,52]. Conversely, parenting that supports children's autonomy has been shown to reduce children's social anxiety [53]. These results suggest that parents' supportive parenting attitudes may be a protective factor against social withdrawal. Meanwhile, prior studies focusing on adolescents have shown that parents' supportive parenting style is negatively associated with adolescents' emotion regulation issues [54]. Although the tendency of multicultural adolescents to withdraw socially tends to worsen as they enter adolescence, previous research has shown that multicultural adolescents who receive attentive and warm support from peers who have experienced racial bullying are less likely to engage in criminal activities and violence one year later. Thus, this support forms a barrier to these negative behaviors [55]. Therefore, considering the findings of these studies, it is inferred that parental support positively affects children's life satisfaction, while social withdrawal has a negative effect. However, while the majority of studies have been conducted on adolescents in general, very few studies have targeted adolescents from multicultural families. Studies that comprehensively explore parental support, social withdrawal, and life satisfaction are almost impossible to find. Therefore, this study has attempted to explore the structural relationships between these variables and targets multicultural adolescents.

Life satisfaction refers to the degree to which one is satisfied with one's life as a whole according to individual standards and is used interchangeably with terms such as subjective well-being, happiness, and quality of life [56,57]. Examining previous studies on life satisfaction and social withdrawal, it was found that repeated social withdrawal during adolescence not only causes various psychological problems such as depression and anxiety [58] but also negatively affects adolescents' life satisfaction. Additionally, several previous studies targeting adolescents from multicultural families [59], adolescents in general [38], and college students in general [60] have consistently shown that social withdrawal has a significant negative impact on life satisfaction. Therefore, considering these earlier studies, it is believed that the social withdrawal experienced by multicultural adolescents will act as a factor that reduces life satisfaction. Thus, this study attempted to identify the influencing factors.

The quality of the relationship between adolescents and their parents has a significant impact on their life satisfaction [61]. This may be because close parent-child relationships can serve as a buffer against stress and trigger adaptive functions. Empirical studies have revealed that authoritative parenting behaviors of parents have a positive effect on adolescents' life satisfaction [49], but parental neglect negatively affects adolescents' life satisfaction [62]. Therefore, it would be worthwhile to investigate the relationship between social withdrawal and parental support among the factors influencing the life satisfaction of adolescents from multicultural families.

1.7. Sample frame

The subjects of this study are exclusively adolescents from multicultural families in Korea. The primary focus of this proposed study is high school sophomores. By examining the impact of social withdrawal levels on life satisfaction among multicultural adolescents, it aims to determine whether parental support can act as a mediating or protective factor in this relationship. The findings of this study will aid educators and policymakers in developing strategies to guide the development of adolescents.

2. Method

a. Research design

This secondary data analysis study used data from the Multicultural Adolescents Panel Study (MAPS) conducted by the National Youth Policy Institute [63] to verify the mediating and moderating effects of parental support on the relationship between social withdrawal and life satisfaction perceived by multicultural adolescents. The theoretical framework of this study is illustrated in Figs. 1 and 2.

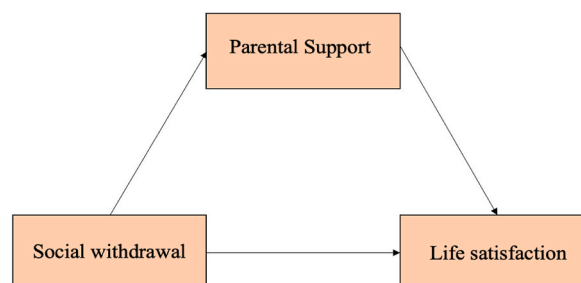


Fig. 1. Theoretical framework of mediation effects.

b. Data collection and participants

This study used the eighth year (2018) of the MAPS, which is the most recent survey for which data is available, after approval was received from the National Youth Policy Institute [16,64]. The MAPS has been used to gain a more objective understanding of the developmental characteristics of multicultural adolescents since 2011. The target is fourth-graders of multicultural families, and longitudinal surveys are conducted on parents and adolescents. The data subjects for 2018 were high school sophomores, and the data from 1197 people who participated in this survey were used in the analysis.

Representative samples were selected as follows. The sampling method involved selecting schools based on a list of multicultural adolescent students enrolled in elementary schools. The stratified random sampling method was applied to select sample schools, and the probability proportional sampling method was used to increase the sampling rate of students from multicultural families. The multicultural children and adolescents panel survey was designed as a longitudinal survey model using a single-sample design method.

This survey was conducted on fourth-grade elementary school students in 2011 (first wave) and was carried out on the same group of students annually. By 2018 (the eighth wave), the participants had progressed to their second year of high school and were 17 years old. Sample replacement was not carried out due to withdrawal because of relocation or loss of contact. In the first year (2011), 1635 students (100 %) participated; in the eighth year (2018), 1197 participants (73.2 %) remained.

In 2011, we visited schools with multicultural students, as there was no population distribution or target list available. We collaborated with the Office of Education to reach out to parents through homeroom teachers. The researcher informed parents about the data survey. Subsequently, a survey was conducted with parents who consented. From the second to the eighth year, the researcher contacted parents who were identified in the first year to participate in the survey.

A trained researcher visited the homes of multicultural adolescents to collect data. The panel data were surveyed using computer-assisted personal interviews, and periodic follow-up surveys with the initial sample group were conducted. Students whose parents were from countries such as Thailand, Japan, China, Vietnam, and the Philippines were included as subjects. The survey was conducted using a translated questionnaire based on the parents' nationality. Overall, 95.2 % of the mothers were multicultural, with Japanese (32.2 %), Filipino (24.5 %), and Chinese (19.7 %) nationalities.

This survey covered various areas such as the background characteristics of children from multicultural families, parent–child relationships, and physical development. The study variables included social withdrawal in the psychosocial adaptation domain, life satisfaction, and parental support in the parent–child relationship domain.

c. Measurement

2.1. Parental support

Some of the parental support questions used by Kim and Park [64] were extracted from the National Youth Policy Institute [64] and modified for use in the present study in consideration of the age of the respondents. This part of the survey consists of nine items related to parental support and utilizes a Likert scale (1 = not at all, 2 = disagree, 3 = moderate, 4 = somewhat, 5 = strongly agree). An example item is “My parents (or guardians) know and understand me well.” Higher scores indicated high levels of parental support for children. In this study, Cronbach's α was .92.

2.2. Life satisfaction

The “happiness” question developed by Kim et al. [65] was re-named as “life satisfaction” and used by Lee et al. [66]. In this study, Lee et al.'s [66] tool was used, which consist of three items related to life satisfaction, with responses given using a Likert scale (1 = not at all, 2 = disagree, 3 = somewhat, 4 = strongly agree). An example item is “I don't have much to worry about.” Higher scores reflected higher life satisfaction. In this study, Cronbach's α was .80.

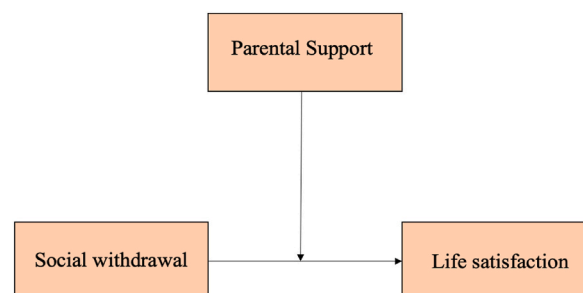


Fig. 2. Theoretical framework of moderating effects.

2.3. Social withdrawal

The tool developed by Kim and Kim [67] for measuring social atrophy was revised and improved by Lee et al. [66]. In this study, Lee et al.'s [66] tool was used. This tool comprises four items, responses to which are given using a 4-point Likert scale (1 = not at all, 2 = disagree, 3 = somewhat, 4 = strongly agree). An example item is "I feel awkward when there are a lot of people around." In this study, Cronbach's α was .91.

d. Data analysis

The hypothesis of this study was verified by analyzing data using the R statistics 4.1.1 program. The specific data analysis methods and procedures used are as follows. Frequency analysis was performed to identify the general characteristics of the participants. Cronbach's α was calculated to verify the reliability of the measures of social withdrawal, parental support, and life satisfaction. The minimum, maximum, mean, and standard deviation of each variable were calculated, and absolute values of skewness and kurtosis were calculated to confirm the normality of the data.

Moreover, Pearson correlation analysis was performed to clarify the relationships among the variables. Following Baron and Kenny [68], multiple regression analysis was performed to calculate the mediating effect of parental support on the relationship between social withdrawal and life satisfaction, and bootstrapping was used to verify the significance of the indirect effect. Multiple regression analysis allows one to simultaneously understand the relationship between a dependent variable and multiple independent variables. It also provides insight into how each independent variable contributes to changes in the dependent variable. In this study, multiple regression analysis was conducted for clarity.

Hierarchical regression analysis was performed to verify the moderating effect of parental support on the relationship between social withdrawal and life satisfaction, and mean centering was performed to prevent the multicollinearity problem. Hierarchical regression analysis is suitable for explaining the variance of the dependent variable and confirming whether independent variables (such as social withdrawal and parental support) influence the outcomes.

e. Ethical considerations

The original data were sent via email, and approval was obtained from the Dongyang University Ethics Committee (IRB NO: 1041495-202111-HR-04-01) before the study commenced. All participants in the original study (parents and students) provided informed consent before taking part in the study. Survey data were anonymized during the analysis to safeguard participants' personal information; each participant was assigned a personal ID, which was linked to their health information.

Permission to download data was obtained from the National Youth Policy Research Institute by filling out a pledge through the research application form so that data security could be maintained. The downloaded data were kept on a personal password-protected laptop and not leaked to external sources. The data were discarded after the study was completed.

f. Establishing data reliability

The sample size was determined to be 1600 adolescents and 1600 parents in the first year of data collection based on the reliability of the data and the budget. The sampling rate was 35.9 %, and the sampling error was ± 2.5 % at a 95 % confidence level. The group was stratified using the distribution of elementary school attendance of multicultural adolescents in the fourth grade of elementary schools in 16 cities and provinces. The proportional distribution method was applied using the cities, provinces, and schools as the stratification variables. However, in cases where a small number of samples were allocated to a specific city or province, some

Table 1
General characteristics of multicultural adolescents.

Characteristics		Frequency	%
Gender	Male	587	49.0
	Female	610	51.0
Age	16 years old	90	7.5
	17 years old	1064	88.9
	18 years old	39	3.3
	19 years old	3	.3
	20 years old	1	.1
Area of residence	Seoul	127	10.6
	Gyeonggi and Incheon	302	25.2
	Chungcheong and Gangwon	240	20.1
	Gyeongsang	250	20.9
	Jeolla and Jeju	278	23.2
Size of region	Big city	302	25.2
	Medium or small city	540	45.1
	Rural area	355	29.7
Total		1197	100

adjustments were made to increase reliability.

Additionally, the results of the Cronbach's alpha test will be used to establish reliability before analyzing the study results. Cronbach's alpha test techniques using SPSS measure the internal consistency or reliability of a set of items designed to evaluate the same basic concept. Values range from 0 to 1, with higher values indicating greater reliability. In this study, the data from the Cronbach alpha test results were between .8 and .92, so they were considered reliable.

3. Results and discussion

a. General characteristics of multicultural adolescents

Table 1 shows the general characteristics of the participants. There were 587 males (49.0 %) and 610 females (51.0 %). Ninety participants (7.5 %) were 16 years old, 1064 (88.9 %) were 17 years old, 39 (3.3 %) were 18 years old, three (.3 %) were 19 years old, and one (.1 %) was 20 years old. Regarding area of residence, 127 participants (10.6 %) lived in Seoul, 302 (25.2 %) lived in Gyeonggi and Incheon, 240 (20.1 %) lived in Chungcheong and Gawon, 250 (20.9 %) lived in Gyeongsang, and 278 (23.2 %) lived in Jeolla and Jeju. Finally, regarding regional size, 302 participants (25.2 %) lived in big cities, 540 (45.1 %) lived in small and medium-sized cities, and 335 (29.7 %) lived in rural areas.

b. Specific research result

3.1. Descriptive statistics of social withdrawal, parental support, and life satisfaction

Table 2 shows the descriptive statistics for social withdrawal, parental support, and life satisfaction among the participants. For social withdrawal, the mean was 2.40 (SD = .73) out of a total of four points. For parental support, the mean was 3.90 (SD = .71) out of a total of nine points. For life satisfaction, the mean was 2.84 out of a total of four points (SD = .60).

3.2. Correlations between social withdrawal, parental support, and life satisfaction

Table 3 shows the correlations between social withdrawal, parental support, and life satisfaction among the participants. Social withdrawal had negative correlations with parental support ($r = -.257, p < .001$) and life satisfaction ($r = -.295, p < .001$). Meanwhile, life satisfaction showed a positive correlation with parental support ($r = .0428, p < .001$).

3.3. Mediating effect of parental support on the relationship between social withdrawal and life satisfaction

Table 4 and Fig. 3 show the results of the analysis of the mediating effect of parental support on the relationship between social withdrawal

and life satisfaction. The direct effect of social withdrawal on life satisfaction was negative and statistically significant ($\beta = -.141, p < .001$). The direct effect of parental support on life satisfaction was positive and statistically significant ($\beta = .668, p < .001$). Finally, the direct effects of social withdrawal and parental support on life satisfaction were statistically significant ($\beta = .095, p < .001$), while their indirect effect ($\beta = .046, p < .001$) was negative and statistically significant.

The bootstrapping method was used to test the statistical significance of the mediating effect. The indirect effect of social withdrawal and life satisfaction did not include 0 between the lower and upper limits at a 95 % confidence interval ($-.060 \sim -.030$). Thus, the mediating effect was deemed significant, indicating that parental support has a partial mediating effect on the relationship between social withdrawal and life satisfaction because both the direct and indirect effects of parental support on social withdrawal and life satisfaction were significant.

3.4. Moderating effect of parental support on the relationship between social withdrawal and life satisfaction

Table 5 and Fig. 4 show the results of the analysis of the moderating effect of parental support on the relationship between social withdrawal and life satisfaction. The analysis involved centering the variables in order to solve the problem of multicollinearity. In the

Table 2
Descriptive statistics of social withdrawal, parental support, and life satisfaction.

	Social withdrawal	Parental support	Life satisfaction
Min	1	1	1
Max	4	5	4
Mean	2.40	3.90	2.84
SD	.73	.71	.60
Skew	-.24	-.37	.05
Kurtosis	-.46	.07	.32

Table 3
Correlations between social withdrawal, parental support, and life satisfaction.

	Social withdrawal	Parental support	Life satisfaction
Social withdrawal	1		
Parental support	-.257 (<.001)	1	
Life satisfaction	-.295 (<.001)	.428 (<.001)	1

first stage, social withdrawal had a significant negative effect on life satisfaction. This means that as social withdrawal increases, life satisfaction decreases. In the second stage, social withdrawal negatively affected life satisfaction. Parental support factors had a significant positive influence on life satisfaction. The third step confirmed that the moderating effect on life satisfaction ($\beta = .003$, $p = .047$) had a significant impact. In other words, compared to the second stage, parental support had a more positive impact on life satisfaction ($\beta = .103$, $p < .001 \rightarrow \beta = .105$, $p < .001$). Moreover, the moderating effect of parental support mitigated the negative influence of social withdrawal on life satisfaction ($\beta = -.095$, $p < .001 \rightarrow \beta = -.092$, $p < .001$).

c. Discussion

Multicultural adolescents' sense of social withdrawal negatively impacts their life satisfaction. Previous research has shown that multicultural adolescents have little identification with their culture. Moreover, their surroundings are a serious risk factor since the environment is often unsupportive and offers multicultural adolescents' little sense of acceptance and connection [69]. These results support the current findings, which reveal that multicultural adolescents who feel intimidated by racial discrimination experience lower self-esteem, more depressive symptoms, greater psychological distress, and lower academic achievement than their non-multicultural peers [70]. The literature increasingly shows that higher social withdrawal is related to lower adaptability among multicultural adolescents [71]. Early intervention for adolescents is necessary given that social withdrawal in adolescents can reduce life satisfaction into adulthood.

Furthermore, parental support played a role as a mediating and controlling variable in the relationship between social withdrawal and life satisfaction. Previous studies have shown that multicultural adolescents cope better with difficult situations when they have social support [72] and that social support facilitates the positive adaptation of multicultural adolescents [73]. These findings are consistent with research showing that social support is commonly used to cope with racial discrimination [74]. Parental support may be a protective factor for adolescents by fostering closer bonds between parents and children, allowing opportunities for open communication, and creating a sense of security for children [75]. This result is consistent with the finding of an American study targeting multicultural adolescents showing that parental support plays a buffering role in perceived discrimination's relationships with behavioral problems and drug use [76]. This result also aligns with research results showing that multicultural adolescents who experience high levels of racial discrimination have low self-esteem and are not optimistic when they receive little parental support [73].

Our results suggest that parental support positively affects multicultural adolescents' life satisfaction. As found in previous research, minority adolescents who experienced more parental support reported higher levels of self-efficacy, optimism, school integration, and self-esteem [73]. Research shows that high parental support protects multicultural adolescents from the negative effects of racial stress on self-esteem [76].

Considering that parental support increases the life satisfaction of multicultural adolescents, cooperation between schools, teachers, and parents is essential [77]. Previous studies have shown that multicultural adolescents cope better with difficult situations when they have social support [78]. The role of social support as a facilitator of positive adaptation among multicultural adolescents is important, which aligns with research showing that social support is a commonly used coping strategy for racial discrimination.

This study is significant because it confirms that social withdrawal and parental support impact the life satisfaction of multicultural adolescents. It also reveals the mediating and moderating effects of parental consent on the relationship between social withdrawal and life satisfaction. As a result, we anticipate that this study will provide fundamental data for contemplating more comprehensive professional intervention measures for social withdrawal and parental support. This will aid policymakers in developing and implementing support measures to enhance the quality of life of multicultural adolescents.

i. Theoretical contribution

The results of this study are important for establishing educational policies and guidelines related to multicultural families. They also help parents and educators understand how they can support multicultural adolescents. Multicultural students experience difficulties in school and daily life due to social withdrawal [79]. Given the characteristics of Koreans, including exhibiting collectivist tendencies and strong nationalism, as well as teenagers, who tend to reject those who are different from themselves, parents of multicultural teenagers play a crucial role in communication [80]. Educators also have an opportunity to apply this knowledge to understand multicultural adolescents better and create programs that enhance their adjustment to school life. This study plays an important role in identifying the relationships between social withdrawal and life satisfaction among multicultural adolescents. The originality of this study lies in that its respondents are multicultural adolescents. Additionally, research on the mental health of multicultural adolescents has shown that the role of family and resilience are important. This study also investigated social withdrawal among multicultural adolescents in Korea and its findings support the results of previous studies [81,82]. It also further examines

Table 4
Mediating effect of parental support on the relationship between social withdrawal and life satisfaction.

Independent	Dependent	β	SE	t(p)	Adj. R ²	F(p)	Direct effect		Indirect infect		Total effect	
							β	t(p)	β	t(p)	β	t(p)
Social withdrawal	Life satisfaction	-.141	.013	-10.68(<.001)	.086	114 (<.001)	-.141	-10.68 (<.001)			-.141	-10.68 (<.001)
Social withdrawal	Parental support	-.450	.048	-9.23(<.001)	.0657	85.2 (<.001)	-.450	-9.23 (<.001)			-.450	-9.23 (<.001)
Parental support	Life satisfaction	.103	.007	14.26(<.001)	.218	168.3 (<.001)	-.095	-7.47 (<.001)	-.046	(<.001)	-.141	-10.68 (<.001)
Social withdrawal		-.095	.012	-7.47(<.001)								

B = standardized estimates; SE = standard error.

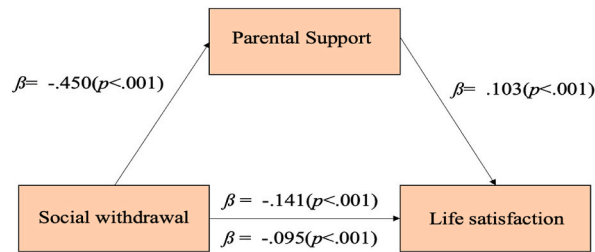


Fig. 3. Mediating effect of parental support on the relationship between social withdrawal and life satisfaction.

adolescents' behavioral capacity in response to parental supportive behavior, which is invaluable in enhancing their social skills and life satisfaction [83]. Parental support plays a crucial role in regulating and mediating the psychological discouragement experienced by multicultural adolescents. This study highlights the significance and necessity of parental support in Korea.

ii. Recommendations and implications

The collaboration that multicultural adolescents experience in schools can positively impact their development, academic performance, and future opportunities. Thus, it is necessary to consider that insufficient language skills are a major factor that causes feelings of social withdrawal and hinders adaptation for multicultural adolescents, who are generally interested in the career and positive development of their multicultural adolescents. In light of this, Korean schools should provide interpreters and cultural brokers to help parents participate actively in counseling and understand the information they need to better support their children.

Moreover, if a gathering place is provided for parents to interact, they will be able to make new contacts, share ways of supporting their children, and manage their acculturation process. Since multicultural adolescents can integrate into a new culture more quickly than their parents, parents often become cultural brokers. Refugee adolescents may benefit from sharing their acculturation processes with their parents. Therefore, parental support may be an important buffer against experiences of discrimination.

Strengthening cooperation between schools and social and community organizations is of the utmost importance. Counseling practitioners need to implement psychological programs in communities and schools to provide emotional support for parents and multicultural adolescents.

3.5. Limitations and future research directions

This study has several limitations that leave gaps for future studies to fill. First, there is a need to examine various related factors that can support parental support that were not investigated in this study. Further, it is essential to analyze how the country of origin, period of residence, communication skills of parents and adolescents, and methods of improving communication skills affect multicultural adolescents. Additionally, the causes of social withdrawal should be analyzed by examining peer relationships, academics, student–teacher relationships, and community factors by class. There is also a need for school policymakers to implement a mandatory program implementation system. Furthermore, Korean schools and teachers would do well to implement programs that strengthen parents' abilities to support their children while addressing social withdrawal in schools. Moreover, the life satisfaction of multicultural adolescents can be improved through the development and application of programs that address parenting education to enhance parents' parenting attitudes at home and reduce the social withdrawal of multicultural adolescents at school.

4. Conclusion

This study explored the factors influencing social withdrawal and its effects on life satisfaction in multicultural adolescents. The research revealed that social withdrawal experienced by multicultural adolescents reduces life satisfaction. Moreover, parental support was identified as a mediator in the relationship between social withdrawal and life satisfaction. It was also found that parental support can mitigate the negative effects of social withdrawal on life satisfaction. Therefore, to address lower life satisfaction among multicultural adolescents, it is essential to implement programs that educate parents on effective communication with their children through parent education. Additionally, providing counseling services for multicultural adolescents and parents at schools is crucial.

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Not applicable.

Data availability statement

The authors do not have permission to share data.

Table 5
Moderating effect of parental support on the relationship between social withdrawal and life satisfaction.

Independent	Step 1					Step 2					Step3						
	β	SE	t(p)	R ²	F	β	SE	t(p)	R ²	F	VIF	β	SE	t(p)	R ²	F	VIF
Social withdrawal	-.141	.013	-10.68 (<.001)	.086	114 (<.001)	-.095	.012	-7.475 (<.001)	.218	168 (<.001)	1.071	-.092	.012	-7.26 (<.001)	.220	113.8	1.081
Parental support						.103	.007	14.26 (<.001)			1.071	.105	.007	14.41 (<.001)			1.086
Social withdrawal* parental support												-.003	.001	-1.98 (.047)			1.018

B = standardized estimates; SE = standard error.

Adjusted R-squared: .086.

F-statistic: 114, p-value: <.001.

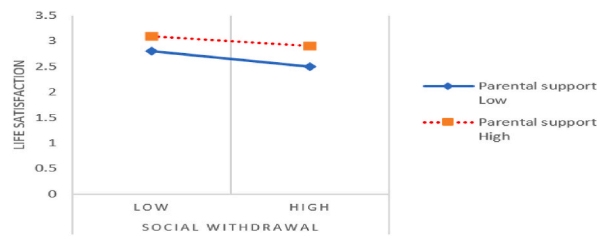


Fig. 4. Moderating effect of parental support on the relationship between social withdrawal and life satisfaction.

CRedit authorship contribution statement

Youn-Joo Um: Visualization, Validation, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, 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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