

Mediating effect of intergenerational family conflict between perceived parental warmth and depressive symptoms[†]

Gloria Youngju Nam¹

¹Department of Psychosocial and Community Health, University of Washington

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Abstract

Depressive symptoms are one of the biggest mental health issues among Korean American adolescents. Previous studies have found that parental warmth and intergenerational family conflict have a major impact on depressive symptoms among Korean American adolescents. This cross-sectional study examines the mediation effects of intergenerational family conflict between perceived parental warmth and depressive symptoms among 97 Korean American adolescents aged 14 to 18 years old in the Pacific Northwest region. The results revealed that 60% of participants experienced depressive symptoms. In addition, mother-adolescent conflict significantly mediated between perceived parental warmth and depressive symptoms while father-adolescent conflict did not significantly mediate. The finding suggests the need to develop intervention programs for Korean American adolescents and their parents that focus on creating an understanding of the difference between Korean culture and American culture, identifying early signs of depressive symptoms, and decreasing intergenerational family conflict by teaching parents to express parental warmth effectively.

Keywords: Depressive symptoms, intergenerational family conflict, Korean American adolescents, mediating effects, parental warmth.

1. Introduction

The Korean immigrant population continues to quickly grow in the US, ranking the 5th largest subgroup among Asian immigrants in 2011 (United States Bureau of Census, 2011). Because of this, researchers have begun to focus attention on the mental health issues of Korean American adolescents. A cross-sectional study reported that up to 40% of Korean American adolescents experienced high depressive symptoms (Kim and Cain, 2008). Previous studies have found that parental warmth is associated with psychological adjustment, depressive symptoms, and academic achievement among Korean American adolescents (Kim, 2008; Kim and Cain, 2008; Kim and Rhoner, 2002). Another factor that could influence depressive symptoms is intergenerational family conflict. As Korean American adolescents

[†] This research was supported from the Hester McLaws Nursing Scholarship, University of Washington.

¹ Clinical Assistant Professor, Department of Psychosocial and Community Health, University of Washington, Seattle, Washington 98195, USA. E-mail: gloriayjn@gmail.com

grow up in American society, they may develop cultural values and attitudes that differ from their Korean parents. Because of the magnitude of differences between Korean and American culture, Korean American adolescents can be placed in situations of increased conflict with their parents (Kim and Wolpin, 2008; Lee *et al.*, 2005; Park, 2003; Steinberg, 2011). Previous studies revealed that those among Korean American adolescents who experienced high family conflict also reported high depressive symptoms and low self-esteem (Cho and Bae, 2005; Kim and Cain, 2008; Park, 2003; Park *et al.*, 2010). However, the role of intergenerational family conflict in connection with parental warmth and depressive symptoms has not been reported. The purpose of this study was to examine the role of intergenerational family conflict between parental warmth and depressive symptoms among Korean American adolescents.

2. Theoretical Framework

The parental acceptance-rejection theory and the acculturative family distancing theory guided this study. According to parental acceptance-rejection theory, the theory forms the warmth dimension of parenting on a continuum of acceptance and rejection. At one end is parental acceptance, defined as the affection, care, support, and love that children may receive from their parents. At the other end is parental rejection, which is the absence of acceptance-feeling behaviors from parents (Rohner *et al.*, 2005). When this basic need is not met, adolescents may exhibit behavior problems, conduct disorders, and depressive symptoms due to the perception that they are being rejected by their parents (Rohner *et al.*, 2005).

Acculturative Family Distancing Theory (AFD) was constructed to explain the problematic distance between parents and their children due to acculturative difference in immigrant families (Hwang, 2006). This acculturation difference is defined by how much an immigrant adjusts and adapts to a host culture (Tsai-Chae and Nagata, 2008). The stronger AFD is in an immigrant family, the more that family experiences family conflict, which may cause individual and family dysfunction (Hwang, 2006). When there is a distancing between parents and their children due to cultural value systems, it increases the risk of the children developing difficult relationships with their parents. Children may follow their parents when they are young, but constant exposure to American culture may change the value systems of Asian immigrant children (Hwang, 2006).

3. Literature Review

Depressive symptoms have been one of the most prevalent mental health issues among adolescents while they transit from childhood to adulthood. Although adolescents may experience moodiness and sadness, they may also develop severe mental health problems, including major depression, anxiety, eating disorders, substance abuse, and suicidal ideation (Choi *et al.*, 2002; Steinberg, 2011). The causes of depressive symptoms among adolescents are many, such as genetics, hormones, brain development, increased stress, low family income, and emotional instability (Hong *et al.*, 2016; Spear, 2010; Steinberg, 2011). Adolescents who experienced increased stress due to high family conflict, low family cohesion, experienced violence in home, and poor peer relationship especially reported higher depressive symptoms

(Min and Choi, 2016; Steinberg, 2011). Asian American adolescents who experienced a high level of conflict with their parents reported poor psychological outcomes (Steinberg, 2011).

Previous studies reported that Asian American adolescents had lower rates (17%) of depressive symptoms compared to Caucasian adolescents (18%) and Hispanic adolescents (22%), but higher than African American adolescents (15%) (Saluja *et al.*, 2004). However, Asian American adolescents experienced more isolation and emotional instability compared to Caucasian adolescents (Cho and Bae, 2005). Korean American adolescents also reported a higher prevalence of depression compared to other Asian American adolescents, such as Chinese, Filipino, and Japanese (Choi *et al.*, 2002). Expected to be successful in the U. S. and to care for younger siblings, Korean American adolescents also have to deal with their parents' expectations of high grades in secondary school and admission to highly-ranked universities (Cho and Bae, 2005; Choi *et al.*, 2002; Yeh *et al.*, 2008). A recent study reported that approximately 40% of Korean American adolescents in the Pacific Northwest area have experienced depressive symptoms (Kim and Cain, 2008).

Perceived parental warmth is defined as adolescents' perception of love from their parents (Rohner *et al.*, 2005). It relates with psychological (mal)adjustment among children and adults across the different cultures, ethnic backgrounds, and languages (Khaleque and Rohner, 2002). In addition, parental support, monitoring, and the avoidance of harsh punishment relate to children's psychosocial adjustment, school grades, and behavioral problems (Amato and Fowler, 2002). On the other hand, when adolescents perceived rejection from their parents, they tended to engage in substance use/abuse, a situation found among Caucasian, African, Asian, and Hispanic American adolescents (Rohner *et al.*, 2005). In addition, perceived parental rejection was positively associated with depression and aggressive behaviors among Dutch adolescents (Hale *et al.*, 2005).

In every society, adolescents try to establish their own personal identities, value systems, and social relationships, which may differ from their parents'. As a result, intergenerational family conflict, defined as disagreement between adolescents and their parents, can occur (Lee *et al.*, 2005; Steinberg, 2011). This intergenerational family conflict is a normal developmental process, but it often increases risk of mental health issues (Herrenkohl *et al.*, 2009). One study reported that persistent intergenerational family conflict was positively associated with depression and anxiety among adolescents (Rueter *et al.*, 1999).

Increased stress due to intergenerational family conflict was one of the common reasons for Asian American college students to seek counseling while they struggled with school misconduct, antisocial behavior, anxiety, depression, and low self-esteem (Lee *et al.*, 2005). Intergenerational family conflict was associated with psychological adjustment and depressive symptoms, which may continue into adulthood among Asian American adolescents (Herrenkohl *et al.*, 2009; Juang *et al.*, 2007; Qin *et al.*, 2012). Since Korean American parents have similar Asian American cultural values, a high level of intergenerational family conflict occurs in Korean American families (Chung, 2001; Kim *et al.*, 2001; Tai-Chae and Nagata, 2008). Most first-generation Korean parents retain Korean culture and values which emphasize collectivism while their second-generation children tend to follow American culture which emphasize individualism (Kim and Wolpin, 2008; Park, 2003). Previous studies have reported that Korean American adolescents who experienced unresolved family conflict reported high depressive symptoms and low self-esteem (Cho and Bae, 2005; Kim and Cain, 2008; Park, 2003; Park, 2008; Park *et al.*, 2010).

4. Possible mediating role of intergenerational family conflict

Previous studies found that parental warmth and intergenerational family conflict (IFC) are associated with depressive symptoms among Korean American adolescents (Kim and Cain, 2008). However, this study did not examine whether IFC served as a mediator. The role of a mediator explains why and how such outcomes occur between independent and dependent variables. As a study reported, IFC partially mediated parental control on depressive symptoms among Chinese American adolescents (Juang *et al.*, 2007); it is possible that IFC mediates between perceived parental warmth and depressive symptoms in the current study. In other words, if Korean American adolescents perceive less warmth from their parents, they may have a high level of IFC. This high level of IFC would then cause more depressive symptoms among Korean American adolescents. A previous study reported that Korean American adolescents perceived higher conflict with their mothers than with their fathers. However, lower warmth from mothers and higher intergeneration conflict with fathers were associated with depressive symptoms among this population (Kim and Cain, 2008). Therefore, adolescents' intergenerational family conflict with mothers and with fathers were separately measured in this study.

5. Hypotheses

The hypotheses for the study were: (a) Intergenerational family conflict with mothers will mediate the association between perceived parental warmth and depressive symptoms among Korean American adolescents, and (b) intergenerational family conflict with father will mediate the association between perceived parental warmth and depressive symptoms among Korean American adolescents.

6. Method

6.1. Design and Sample

A cross-sectional design with an online survey was used in this study. Participants were 101 Korean American adolescents (14 to 18 years old) living in the Pacific Northwest, USA. Both network and convenience sampling methods were used to recruit a variety of Korean American adolescents. The study included Korean American adolescents who could read, write, and understand English fluently; were between 14 and 18 years old; were in grades 9 (3rd year in middle school) to 12 (3rd year in high school) in school; had at least one Korean American parent; and were living with their parents at the time they were surveyed. Korean adolescents living abroad in the US were excluded. In the current study, Korean Americans include U.S. citizens, naturalized citizens, and permanent residents.

6.2. Data Collection Procedures

Before recruitment began, the study procedures were reviewed and approved by Institutional Review Board at the Primary Investigator's institution to ensure the protection of human subjects. The data collection took place from August 2012 through December 2012. A convenience and network sample of 97 Korean American adolescents from 10 local Korean ethnic churches completed the survey.

The researcher created an on-line survey using WebQ, a program approved by the IRB for use with research participants. WebQ is convenient in that the researcher can create an anonymous on-line survey. The youth pastors at local churches in the Pacific Northwest area were contacted by the researcher to gain permission to recruit Korean American adolescents. After getting approval from the pastors, the researcher visited youth services at the churches, presented the study purpose and procedures, and distributed flyers providing the survey's URL. Adolescents were also encouraged to share information about the study with their friends who may not attend church. When participants went to the online survey site, they were able to view the Information Statement and were asked whether they agreed or disagreed to participate in the study. Adolescents gave their assent by clicking, "I agree." The next screen asked participants if they met the inclusion criteria. If they did not meet criteria the survey ended. After finishing the demographic data, participants were able to print a page to receive a \$10 Panera Bread gift card. Once they printed the page, they were asked to click the "submit" button. Participants then mailed the printed page to the researcher to claim the gift card. After the researcher sent the gift card, the participants' personal information was destroyed. Once the number of participants was reached, the researcher closed the survey site and all data were imported into Statistical Package for the Social Sciences (SPSS) 21 program via Microsoft Excel.

6.3. Instruments

- **Center for Epidemiologic Studies Depression Scale 10 (CESD-10).**

The 10 item short version self-report scale was used to measure depressive symptoms because it is convenient and easier to complete (Andresen *et al.*, 1994). This scale includes two items of positive affect and eight items of depressive symptoms, including depressive affect and somatic retardation. It utilizes 4-point Likert-type response options that vary from "rarely, less than 1 day/week" to "almost or all of the time, 5-7 days/week". Total scores range from 0 to 30, and a score greater 10 or higher is considered being positive for depressive symptoms (Andresen *et al.*, 1994). Sample items included "I felt fearful" for depressive affect, "my sleep was restless" for somatic retardation, and "I felt hopeful about the future" for positive affect. This scale was considered acceptable when used with adolescents (Bradley *et al.*, 2010). Coefficient alpha for adolescents was .85, and two factor construct validity was established among an adolescent population (Bradley *et al.*, 2010). The Cronbach alpha for the current study was .78.

- **Questionnaire (CPARQ, short version).**

The CPARQ which is a 4-point Likert-like scale with response options ranging from 1 (almost always true) to 4 (almost never true) was used to measure parental warmth. Several items are reverse scored to minimize response bias. The CPARQ short version is a 24-item self-report questionnaire to measure an adolescent's perceptions of parental warmth in four categories: (a) affection, (b) hostility/aggression, (c) indifference/neglect, and (d) undifferentiated rejection. The affection section assesses the parent-child relationship, where an adolescent perceives his/her parents as loving and affectionate without any qualification (e.g., "my mother says nice things about me."). The hostility/aggression section assesses whether an adolescent perceives his/her parents as angry and resentful parents, and if he/she believes his/her parents try to hurt him/her physically and verbally (e.g., "my mother goes out of her way to hurt my feelings."). The indifference/neglect scale assesses whether adolescents

see their parents as unconcerned or uninterested (e.g., “my mother pays no attention to me.”). The undifferentiated scale examines adolescents’ perceptions of their parents’ rejection without showing unaffectionate, aggressive, or neglecting behaviors (e.g., “my mother seems to dislike me”) (Rohner, 2005). The total score of The CPARQ ranges from 24 (maximum perceived acceptance) to 96 (maximum perceived rejection). A score of 56 and higher is considered as serious rejection. Rohner (2005) reported evidence of convergent and discriminant validity. Reliability coefficients for the CPARQ were reported as .70 for mothers and .57 for fathers among Jamaican youths (Steely and Rohner, 2006). The Cronbach alpha for the current study was .96 for mothers and .95 for fathers.

• **Asian American Family Conflicts Scale (AAFCS).**

This 10-item scale about typical conflict situations that reflect parent-adolescent disagreements in values and practices was used to measure intergenerational family conflict. The situations are described in two-part statements to capture the conflict between parents and adolescents (Lee *et al.*, 2000). A sample question is “my mother/father tell me what to do with my life, but I want to make my own decisions.” It is a 5-point Likert-type scale ranging from 1= almost never to 5=almost always. Higher scores indicate a higher frequency of conflict, and the scores range from 5 to 25. Cronbach’s alpha was .89 (Gamst *et al.*, 2011), and .82 for father-adolescent conflict and .85 for mother-adolescent conflict among Korean American families (Kim and Cain, 2008). The validity was demonstrated by statistically significant correlations between the AAFCS scores and the Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale scores (Gamst *et al.*, 2011). The Cronbach alpha for the current study was .90 for mother-adolescent conflict and .91 for father-adolescent conflict.

The demographic data was obtained from participants including age, grade, gender, GPA, length of stay in the U.S., family income, languages spoken at home, birth place, ethnic identity, religious preference, parents’ education level, parents’ length of stay in the U. S., participants’ perception of acculturation level of their parents, and the number of Korean and American friends. The questions asked what language the adolescent used when speaking to his/her mother and father and what language the mother and father used to speak to the adolescent.

6.4. Analysis

All the collected data was kept in the closed survey site in WebQ. The data were scored according to scale coding systems for each instrument and entered into the SPSS software program. For the data analysis, the researcher consulted with a statistician. Descriptive statistics were calculated for means, standard deviations, ranges, and distributions to establish demographic profiles and describe key study variables.

The Pearson correlation among the study variables was computed using the data. Since the mother’s understanding of an adolescent when the adolescent speaks to the mother was determined to be significantly negatively correlated with depressive symptoms, it was controlled in subsequent data analysis. The CPARQ was calculated for mother and father separately. The CESD-10 score was calculated accordingly. The researcher examined the data for the mediating effects of intergenerational family conflict between perceived parental warmth and depressive symptoms. The most commonly used method for this is class mediation testing, developed by Baron Kenny (1986), which should meet certain criteria in normal sampling

distribution. Criteria for establishing a mediator include the following: (a) the independent variable must account for significant variation in the mediator; (b) the mediator must account for significant variations in the dependent variable; and (c) when both the independent and mediator variable are entered simultaneously in the regression equation, the significant associations between the independent variable and the dependent variable will no longer be significant and the indirect effect becomes zero (Baron and Kenny, 1986). However, the direct effects do not have to be significant for mediation to occur in a small sample. They can be non-significant but still have mediating effects (Preacher and Hayes, 2008). Also, an alternative nonparametric re-sampling bootstrapping procedure can be used with the construction of confidence intervals for indirect effect. The indirect mediation model allows multiple mediators while assessing a specific mediating effect through a mediator (Preacher and Hayes, 2008). For the current study, the sampling distribution was not normal and it had two mediators. Therefore, the indirect mediation model with bootstrapping was used.

7. Findings

Table 7.1 summarize the participants' demographic information. Overall, 74% ($n=72$) were girls and 26% ($n=25$) were boys. The age of adolescents ranged from 14 to 18 with a mean age of 15.82 ($SD = 1.19$) years. The average length of stay in the U.S. for the participants was 12.39 years ($SD = 4.58$) and the participants identified themselves as Korean (23.7%), Korean American (68.1%), and American (8.2%). Forty five participants (46.4%) were born in Korea and fifty one participants (52.6) were born in the U.S. Eighty five participants answered to prefer Protestant churches and seven participants preferred Catholic churches whereas only one preferred Buddhism and three did not have any religious preference. Fifty five participants identified their household income as middle income (average), Seventeen participants responded as low income (below average), and sixteen participants responded as high income (above average).

Table 7.1 Adolescents' demographic information (Girls=72, Boys=25)

Category	N	Mean (SD)
Age	97	15.82 (1.19)
Grade	97	10.61 (1.11)
Adolescent's length of stay in the USA	97	12.39 (4.58)
Birthplace	97	1.55 (.52)
Identity	97	1.85 (.55)
Religious preference	97	1.23 (.72)
Income	97	2.18 (.83)
English GPA	97	3.63 (.71)
History GPA	97	3.67 (.73)
Math GPA	97	3.67 (.75)
Science GPA	96	3.75 (.48)
Number of Korean friends	97	3.44 (.78)
Number of non-Korean friends	97	3.53 (.78)

Table 7.2 summarize the participants' parental information. The average years lived in the U.S. by their mothers was 15.71 ($SD = 9.28$) years, and by fathers was 16.97 ($SD = 10.92$) years. Seventy two of their mothers and eighty five of their fathers had college and higher education level.

Table 7.2 Parental information

Category	Item	N	Mean (SD)
Mother	length of stay in the USA	89	15.71 (9.28)
	education level	97	3.92 (.82)
	acculturation level	96	2.63 (.97)
Father	length of stay in the USA	89	16.97 (10.92)
	education level	97	4.30 (.74)
	acculturation level	97	2.78 (1.03)

The results revealed fifty-nine (60.8%) adolescents presented high depressive symptoms. Furthermore, 29 (29.9%) adolescents demonstrated serious rejection from their mothers, and 23 (23.7%) adolescents demonstrated serious rejection from their fathers. The mean mother-adolescents conflict score was 21.14 (SD = 9.63) and the mean father-adolescent conflict score was 20.33 (SD = 9.65).

Table 7.3 presents the correlation for study variables. The paternal warmth, mother-adolescent conflict, and father-adolescent conflict were significantly correlated with depressive symptoms. Maternal warmth was correlated with depressive symptoms, but it was not statistically significant.

Table 7.3 Correlation for the Study Variables

	Maternal warmth	Paternal warmth	Depressive symptoms	Mother-adolescent conflict	Father-adolescent conflict
Maternal warmth	1				
Paternal warmth	.59**	1			
Depressive symptoms	.17	.24*	1		
Mother-adolescent conflict	.59**	.44**	.38**	1	
Father-adolescent conflict	.37**	.57**	.21*	.67**	1

* $p < .05$, ** $p < .01$

Figure 7.1 illustrates the mediating model of intergenerational family conflict between perceived parental warmth and depressive symptoms. The mediating effect of IFC between perceived parental warmth and depressive symptoms revealed the following results. The total effect of maternal warmth on depressive symptoms was not significant, $t = 1.71$, $p = .09$. Maternal warmth was significantly related with both mother-adolescent conflict, $t = 6.71$, $p < .001$, and father-adolescent conflict, $t = 3.60$, $p < .001$. Mother-adolescent conflict was significantly associated with depressive symptoms, $t = 2.75$, $p < .01$ while father-adolescent conflict was not significantly associated with depressive symptoms, $t = -.04$, $p = .50$. The coefficient of path c (.04) was decreased in path c' (-.02), indicating that the direct effect of maternal warmth on depressive symptoms was reduced with parent-adolescent conflict. The bias-corrected 95% CI of .005 to .135 revealed that mother-adolescent conflict was the only significant mediator between maternal warmth and depressive symptoms. Therefore, hypothesis 1 was supported but hypothesis 2 was not.

The total effect of paternal warmth on depressive symptoms was significant, $t = 2.16$, $p < .05$. Paternal warmth was significantly related with both mother-adolescent conflict, $t = 4.58$, $p < .001$, and father-adolescent conflict, $t = 6.62$, $p < .001$. The mother-adolescent conflict was significantly associated with depressive symptoms, $t = 2.67$, $p < .01$, but was not significantly associated with depressive symptoms, $t = -.91$, $p = .29$. The coefficient of path c

(.07) was decreased in path c' (.04), indicating that the direct effect of paternal warmth on depressive symptoms was reduced with parent-adolescent conflict. Again, the bias-corrected 95% CI of .007 to .112 revealed that mother-adolescent conflict was the only significant mediator between paternal warmth and depressive symptoms. Therefore, hypothesis 1 was supported but hypothesis was not.

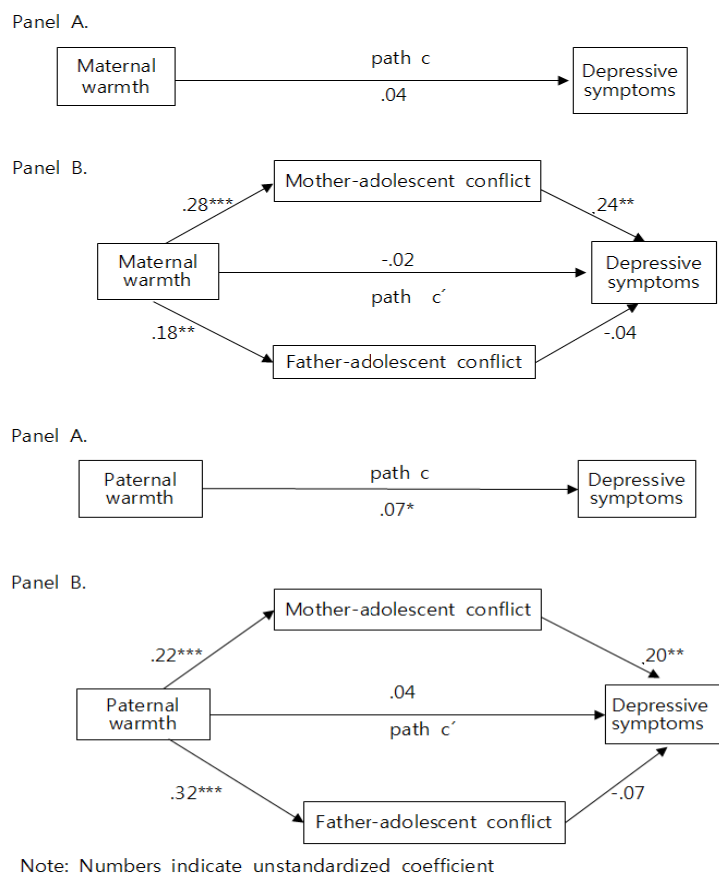


Figure 7.1 Mediating effects of intergenerational family conflict between perceived parental warmth and depressive symptoms

8. Discussion

The results fully supported hypothesis 1 and did not support hypothesis 2. The findings suggested that the negative impact of low parental warmth on depressive symptoms was mediated by intergenerational family conflict. In particular, mother-adolescent conflict significantly impacted depressive symptoms among Korean American adolescents. Although maternal warmth did not have significant direct effect on depressive symptoms, the results demonstrated mediating effect of mother-adolescent conflict between two variables.

This finding is different from previous study reports. Previously, low maternal warmth and higher father-adolescent conflict were associated with depressive symptoms among Korean American adolescents (Kim Cain, 2008). However, mother-adolescent conflict only mediated between perceived parental warmth and depressive symptoms in the current study. It is not clear why father-adolescent conflict did not have a mediating effect between parental warmth and depressive symptoms. This may be due to a lack of interaction between adolescents and their fathers. In Korean culture, the mother is in charge of the child's care and education while the father is viewed as an authority figure and is less involved in childrearing. Korean fathers tend to work long hours and have the traditional image of breadwinner (Choi, *et al.*, 2012; Kim, 2013). These factors may contribute to less communication and interaction between Korean fathers and their adolescent children.

Results also indicate that low parental warmth was positively related to high intergenerational family conflict. When Korean American adolescents perceive less warmth from their parents, it is related with a high level of conflict with their parents. However, this cross-sectional data collection does not make clear what would come first between the two variables. It is arguable that, if adolescents perceive less parental warmth, they have high level of conflict, or that adolescents perceive less parental warmth because of high level of conflict with their parents. This area has not been studied enough and needs to be explored further. The findings suggested a negative impact of low parental warmth and high intergenerational family conflict on depressive symptoms among Korean American adolescents. This result was consistent with previous reports (Cho and Bae, 2005; Juang *et al.*, 2007; Kim and Cain, 2008; Park, 2003).

It is problematic that 60% of Korean American adolescents were revealed to have high depressive symptoms. This finding was about two times more than that in the general adolescent population, which was 28% (Lewinsohn *et al.*, 1998) and 1.5 times higher than a previous study among Korean American adolescents, which reported approximately 40% having depressive symptoms (Kim and Cain, 2008). The age range for the Korean American adolescents participating in Kim and Cain's (2008) study was from 11 to 17 years old, while the age range of the participants in the current study was from 14 to 18 years old. Since Lewinsohn and collages (1998) reported that depression rate increased as adolescents' age, Korean American adolescents may experience higher depressive symptoms as they get older. This is a concern because Korean American adolescents have the poorest mental health outcome among Asian American adolescents (Choi *et al.*, 2002) and they are less likely to seek for mental health services. Korean parents may think that being moody during the adolescence period is a normal part of development and delay medical treatment for their depressed adolescents. This finding suggests that it is important to screen for depressive symptoms among Korean American adolescents and make an appropriate referral and initiation of treatment. The results also revealed that Korean American adolescents experienced higher rejection from their parents compared to American youth. These results were higher than those in a previous study, which reported that 7~10% of American youths experienced serious parental rejection (Rhoner, 2005).

The development of an intervention and educational program for Korean American adolescents that acknowledges the early signs of depressive symptoms and provides strategies to cope with conflict with their parents is recommended. Additionally, culturally appropriate intervention programs for Korean parents need to be developed to decrease the level of conflict and provide examples on how to express warmth to their adolescents.

One of the study limitations was that the data were from self-report questionnaires. As noted earlier, if adolescents had less interaction and communication with their fathers, they may have answered no or less conflict. There may also be other causes influencing Korean American adolescents to be depressed and have high levels of conflict with their parents. In addition, participants were recruited from local churches, which limits the diversity of the participant pool. This is because adolescents who attend churches routinely may have better support systems and resources. However, the Korean ethnic local churches are the first choices for recruitment since up to 70% of Korean American immigrants attend ethnic churches (Min, 1992; Kim, 2009). Although the researcher utilized a network sampling method to recruit Korean American adolescents outside the churches in order to minimize the limitations, 88% of participants identified as Christians.

In conclusion, the study findings suggest the need to develop culturally and developmentally appropriate intervention programs for Korean American adolescents and their parents. First, it is important to educate Korean parents about developmental characteristics and tasks that their adolescents should accomplish and how to express parental warmth. Second, Korean parents and Korean American adolescents should learn the cultural differences they experience and find how to negotiate and communicate with each other. Health care providers and school counselors should know the unique challenges and issues that Korean American adolescents face and be able to provide support, education, and counseling.

Future research with a diverse sample is needed. In addition, other factors that may influence Korean American adolescents' mental health need to be addressed in order to provide more generalization in this population. A longitudinal research design is necessary to examine the mediating effect of intergenerational family conflict between perceived parental warmth and depressive symptoms changes over time. Additionally, future research needs to focus on an intervention program for Korean American adolescents and their parents to decrease depressive symptoms. This intervention program should include the differences between the Korean culture and the American culture so that both Korean American adolescents and their parents understand each other better.

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