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A Longitudinal Investigation of Parenting, Depression, and Counseling Use among Asian American Adolescents

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Ethic Approval Statement

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No Internal Review Board approval was needed since this study used secondary data analysis.

Copyright Statement

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Abstract

Introduction: Asian American adolescents are equally or more likely to experience depression but less likely to seek treatment for depression than adolescents from other racial and ethnic groups in the US. The current study examined the long-term effects of parental care, parental control, and parental closeness on depression and counseling use among Asian American adolescents.

Methods: Using data from the National Longitudinal Study of Adolescent Health (Add Health), we conducted a cross-lagged path-analysis with 270 Asian American adolescents (48.1% female; 51.9% male). The study used data from Waves I, II, and III (1994-2002) with participants' mean ages ranging from 14 to 23.

Results: Findings indicated that the cross-sectional relationships between parenting characteristics and depression were stronger than the longitudinal relationships suggesting that parenting practices may be a stronger proximal, rather than distal, predictor of depression. Specifically, parental closeness was associated with less depression in early and mid-adolescence (age 12-18), but the relationship changed direction in young adulthood (age 18-26). Additionally, a significant interaction suggested that parental care was related to fewer depressive symptoms for those who reported high, compared to low, parental control in mid-adolescence (age 14-18). Furthermore, high parental care was associated with more counseling use at high levels of

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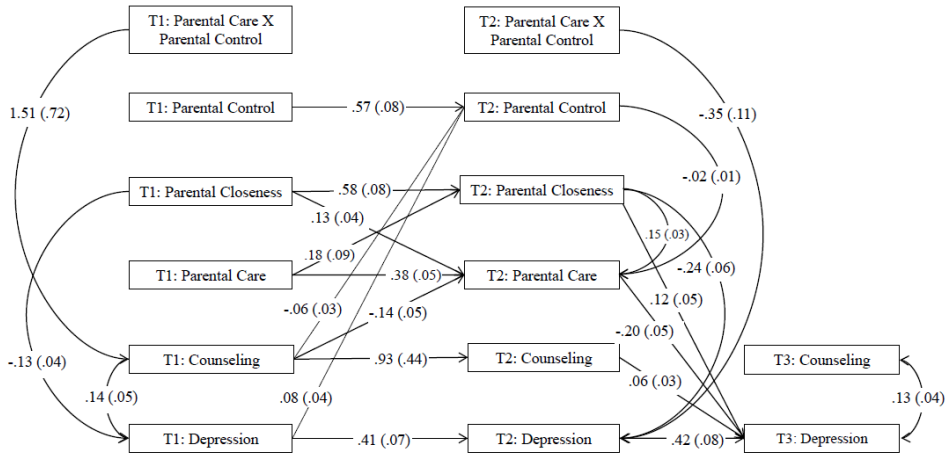
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control. However, high parental care was associated with less counseling use at low levels of parental control in early adolescence.

Conclusion: These results highlight the importance of understanding parenting characteristics using longitudinal designs when examining the development of depression and help-seeking behaviors among Asian American adolescents.

Graphical Abstract

The current study examined the long-term effects of parental care, parental control, and parental closeness on depression and counseling use among Asian American adolescents. Parental closeness was associated with less depression in early and mid-adolescence (age 12-18) but the relationship changed direction in young adulthood (age 18-26). High parental care and high parental control were related to more counseling use in early adolescence and fewer depressive symptoms in mid-adolescence.



Keywords: Asian American adolescents, counseling use, depression, parenting, Add Health data

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A Longitudinal Investigation of Parenting, Depression, and Counseling Use among Asian American Adolescents

Depression in adolescence is a significant public health concern that often remains unrecognized. The past-year prevalence rate of a major depressive episode for U.S. adolescents in 2020 was 17%, and 34% of adolescents globally self-reported elevated depressive symptoms between 2001 and 2020 (National Institute of Mental Health, 2020; Shorey et al., 2021). Despite a growing number of studies on depression among racially and ethnically minoritized adults and college students (e.g., Jackson et al., 2011; Kalibatseva et al., 2022), few studies have examined factors associated with depression among racially and ethnically minoritized adolescents. One consistent finding is that racial and ethnic minoritized adolescents are equally or more likely to have a major depressive episode but less likely to receive mental health services for depression compared to non-Hispanic White adolescents (Fan et al., 2022). Specifically, African American, Hispanic, and Asian American adolescents were less likely than non-Hispanic White adolescents to have access to depression treatment (Cummings & Druss, 2011; Lu et al., 2021). Asian American adolescents were the least likely racial group to seek services for depression with only 18.5% of those who met criteria for major depressive disorder accessing treatment (Cummings & Druss, 2011). In order to understand and reduce these mental health disparities, it is important to examine factors associated with depression, such as parenting and counseling use, among Asian American adolescents.

Parenting characteristics (e.g., care, control, closeness) significantly affect childhood and adolescent depression. In a meta-analysis with 45 studies, McLeod et al. (2007) found that parenting rejection accounted for 8% of the variance in childhood

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depression, whereas parenting control accounted for 5%. In addition, parenting warmth was negatively associated with childhood depression (McLeod et al., 2007). Parenting characteristics and interactions between parents and their children may vary by culture and race (Coll & Pachter, 2002). For instance, American mothers are more likely to promote assertiveness and autonomy in their children, whereas Japanese mothers emphasize emotional maturity, self-control, and interdependence (Bornstein, 2012). In addition, parenting factors are related to mental health service use among racially and ethnically minoritized adolescents (Lu et al., 2021). Specifically, increased discipline and stronger caregiver attachment may be related to lower service use (McGabe, 2002; Yasui et al., 2015). Yet, little is known about the relationship between parenting characteristics, depression, and counseling use across racial and ethnic groups in the U.S.

The current study uses interpersonal developmental theories of adolescent depression (Collins & Steinberg, 2007) to examine how parental care, control, and closeness predict depression and counseling use among Asian American adolescents. Parenting practices are linked to cultural values and beliefs and familial relationships affect adolescent adjustment and mental health (Collins & Steinberg, 2007). Asian ethnic groups who subscribe to a more collectivistic cultural orientation may favor an authoritarian parenting style characterized by high control and low warmth (Ng & Wang, 2019; Yim, 2022). This study attempts to address various limitations in the existing literature. First, previous research on parenting of Asian and Asian American adolescents (e.g., Ng & Wang, 2019) has focused extensively on Baumrind's (1971) parental typologies (authoritarian, authoritative, and permissive). However, examining separate parenting characteristics, such as care, control, and closeness, can provide a more

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nuanced view of parenting by disaggregating parenting style into its components and examining mechanisms through which style influences child development (Darling & Steinberg, 1993). Moreover, studies on parenting have relied on predominantly non-Hispanic White samples with only a few studies focusing on Asian American adolescents. Finally, previous studies used primarily cross-sectional data to make inferences about the direction of the relationships between parenting, mental health, and help-seeking behavior. To address these limitations, the current study examines the relationships between parenting care, control, and closeness, depression and counseling use among Asian American adolescents using longitudinal data from the National Longitudinal Study of Adolescent Health (Add Health).

Parenting and Mental Health: Theoretical and Cultural Considerations

Parental characteristics, such as parental care, closeness, and control, impact the development and course of mood disorders (Alloy et al., 2006; Baumrind, 1971; Branje et al., 2010; Clayborne et al., 2021; Parker, 1983). Parental care, which is closely related to parental warmth, is defined as the degree to which a parent is responsive to their child (Maccoby & Martin, 1983). Parental care ranges from being receptive to antagonistic and reflects parental levels of affection, responsiveness, praise, involvement, and rejection. In contrast, parental control refers to parental demands on the child, ranging from demanding and restrictive to permissive and passive (Parke & Buriel, 2007). High parental control is characterized as excessive supervision that limits the child's autonomy. Whereas parental care and closeness have been negatively associated with adolescent depression, parental control has showed more mixed associations (e.g., McLeod et al., 2007; Ng & Wang, 2019).

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Parental warmth was one of the influential factors associated with less depression among adolescent Asians in North America (Zou et al., 2021). Parental care and warmth were related to less psychological distress among Asian American adolescents (Chiu et al., 1992) and higher self-esteem and lower rates of depression among Korean American adolescents (Park, 2009). Higher perceived parental warmth was also positively associated with higher self-esteem and lower depressive symptoms among Asian American adolescents (Park et al., 2021). This relationship varied by gender as females perceived parental warmth as lower than did males; subsequently, females had lower self-esteem and higher depressive symptoms than males later in adolescence.

Further, parental closeness is an important protective factor for depression in adolescence. Closeness refers to "one's perception of intimacy in a relationship or satisfaction of the relationship" (Mak et al., 2021, p. 3). Maintaining a close and supportive parent-adolescent relationship has been associated with less depressive symptoms during adolescence (e.g., Branje et al., 2010; Mak et al., 2021). The relationship between parental closeness and depressive symptoms has not been explored among Asian American adolescents. Cultural factors, such as intergenerational conflict, which refers to family tension that arises with differences in acculturation across generations, and filial piety, a value that emphasizes an attitude of honor and respect from a child to parents and elderly, play an important role in Asian American mental health (Ying & Han, 2007; Huang & Gove, 2015). Therefore, it is important to examine the role parental closeness and other parental characteristics play in the development of depressive symptoms and counseling use among Asian American adolescents.

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Although ethnic Asian groups differ in historical background and cultural heritage, they generally share commonalities in cultural orientation and values with an emphasis on role obligations and interdependence (Ng & Wang, 2019). According to Markus and Kitayama (1991), relationships with others define the Asian sense of self. Thus, parents of Asian descent may see their children as an extension of themselves (Ng & Wang, 2019). The needs of the family come before the needs of the individual and the goal for the family unit is to maintain harmony and save face. Negative emotions, such as sadness and anger, are discouraged and humility and academic achievement are strongly valued in many Asian cultures (Ng & Wang, 2019).

Findings regarding the effects of parental control on Asian and Asian American adolescent mental health have been more controversial (Ng & Wang, 2019). Parental control is viewed as a multidimensional construct that includes two subtypes: (1) psychological control and (2) behavioral control. Psychological control refers to coercive verbal (e.g., shaming) and nonverbal (e.g., withdrawing love) actions by the parent that aim to control the child, whereas behavioral control includes the implementation of rules and restrictions (Shek, 2005). Among cultures that place a high value on autonomy (i.e., Western cultures), parental control may disrupt the development of independence during childhood and increase risk for maladjustment as the child grows older (Mackinnon et al., 1993). For instance, studies with predominantly non-Hispanic White adolescent samples show that low parental care and high parental control are related to worsened depression (Chambers et al., 2001; Patton et al., 2001; Young et al., 2011).

Higher levels of parental control may be a culturally congruent style of parenting that cuts across parenting types among Asian American families (Juang et al., 2013).

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Tiger parenting, which is characterized by high parental control, was related to high achievement and high psychological distress among Chinese American adolescents (Kim et al., 2015). The reasons for this achievement/adjustment paradox among Asian American adolescents may be differences in parenting approaches, parenting expectations, and parenting-child communication and relationships (Qin, 2008). Rigid parenting approaches with stricter control and excessively high parental expectations may be related to increased levels of parent-child conflict and strains in communication, particularly as children enter adolescence (Qin, 2008). Asian American children may experience higher levels of educational achievement at school but lower levels of psychological adjustment, and Qin (2008) suggests that family dynamics are an important factor in the different levels of psychological adjustment. Although there is some research showing a positive relationship between parental control and depressive symptoms among Asian American adolescents (e.g., Park, 2009), other studies have found no relationship with mental health and argued it may be a particularly culturally relevant construct (Zhou et al., 2012).

Parenting and Mental Health Service Use

Understanding help-seeking behaviors among racially and ethnically minoritized adolescents requires examining parenting characteristics as well as cultural and contextual factors influencing help-seeking behavior. For instance, Cauce et al.'s (2002) process model of help-seeking behavior argues that culture can impact perceptions of mental health problems, decisions to engage in behaviors to seek help, and selection of the type of mental health services. Rogler and Cortes' (2008) conceptualization of help-seeking behavior also argues that culture impacts the chain of events that lead to mental

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health service use. They posit that culture impacts the perceived severity and duration of a mental health problem as well as help-seeking behavior. Further, Rogler and Cortes (2008) stated that the "family mediates the decision to seek help by employing cultural interpretations" of the mental illness (p. 57). Thus, given that parents are generally the first line of support for the child or adolescent, they play an important role because they must determine whether their child's behavior is problematic and if it is likely to remit without seeking help.

Although theories highlight the importance of culture and family in help-seeking behavior, more empirical research is needed to understand the relationship between parenting characteristics and counseling use. As such, little is known about factors that impact help-seeking behavior within the family system, such as the effect of parenting characteristics on monitoring and interpreting the child's psychological distress. The Social Support hypothesis (Cohen & Wills, 1985) states that greater social support within the family system buffers the negative mental health effects of stress (e.g., depression, anxiety) and may provide an alternative to seeking professional mental health services. A meta-analysis of 341 studies found a moderate overall effect size (r = .26) of the benefits of social support related to depression among children and adolescents (Rueger et al., 2016). The meta-analysis tested the stress-buffering model and examined stress as a moderator of the association between social support and depression. Although stress-buffering was not supported, there was evidence that the protective effects of support from family and friends may be decreased when stress is present (Rueger et al., 2016). However, a cultural perspective requires a more nuanced cultural understanding of the role of parenting characteristics. For instance, it is possible that within traditional tightly

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knit Asian families that value interdependence and family harmony, professional mental health services are not sought even if the severity of the child's mental health outweighs the perceived family's supportive resources. In fact, cultural stigma around mental health use within Asian families may inhibit the help-seeking response (Lee & Chang, 2012). In this case, strong social support may not necessarily buffer against poor mental health and serves as a barrier to receiving adequate mental health support.

Although studies provide evidence for both the Social Support hypothesis and the cultural perspective, two characteristics of the parenting literature limit inferences about the relationship between parenting characteristics, mental health service use, and adolescent depression. First, the role of parenting on help seeking behavior appears to be mixed among exploratory studies. Two studies found that family cohesion was related to less mental health service use in a large sample of Asian Americans (Ta et al., 2010) and family support was related to fewer therapy sessions among a sample of Asian American and Latino/a mental health patients (Snowden, 2007). However, a study of Chinese American adults did not find a significant relationship between family support and mental health service use (Abe-Kim et al., 2002). Comparing these findings, it is possible that the relationship between family support and mental health service use is more meaningful during the developmental period of adolescence compared to adulthood. Second, studies generally rely on cross-sectional designs, which limits researchers' ability to make directional inferences between variables. Thus, the current study uses a longitudinal study design to better understand the relationship between parenting characteristics, depression, and counseling use among Asian American adolescents.

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Current Study

Although contemporary theories assert that culture and context are important factors in adolescent mental health and mental health service use, few empirical investigations examine the relationship between parenting characteristics, depression, and counseling use among Asian American adolescents. Therefore, the purpose of the study is to tease apart the longitudinal effects of parental care, closeness, and control on the development of depression and mental health service use. We rely on interpersonal developmental theories of adolescent depression (Collins & Steinberg, 2007), innovative ways to examine parental characteristics instead of parental typologies (Baumrind, 1971) and help-seeking models that consider the role of family (Rogler & Cortes, 2008; Zhou et al., 2012). Previous studies examining parenting characteristics and mental health service utilization frequently relied on cross-sectional designs that limited inferences about temporal precedence. That is, the direction of the relationships between parenting characteristics, adolescent depression, and mental health service use was unclear. Our longitudinal study design allows us to make stronger inferences about the direction of the relationships. Furthermore, our study draws Asian Americans from the National Longitudinal Study of Adolescent Health (Add Health), a multi-wave, nationally representative data set, which increases the generalizability of our findings. We propose the following hypotheses organized by the relationship between the variables of interest.

1) Parenting characteristics and depression:

    a. High parental care and closeness will be related to lower reports of depression within and across time points.

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b. High parental care with high parental control compared to low parental care with high parental control (i.e., affectionless control) will be related to lower rates of depression within and across time points.

2) Parenting characteristics and mental health services:

a. High parental care and closeness will be related to less frequent use of mental health services within and across time points.

b. We will explore the interaction of parental control and care and how it relates to counseling use.

Methods

Data Source & Participants

The sample included 270 Asian American (48.1% female; 51.9% male) middle and high school students from the National Longitudinal Study of Adolescent Health (Add Health). Only child self-reported data are used. Participants in grades 7-12 were recruited at schools using systematic sampling methods and implicit stratification to ensure a nationally representative sample (Harris et al., 2009). The present study used Waves I, II, and III of the restricted Add Health data, which includes the full sample, as compared to the public form that includes a subsample of participants chosen at random. Data waves were collected in 1994-1995 (Wave I), 1996 (Wave II), and 2001-2002 (Wave III), respectively. The sample for the current study consisted of foreign- (n = 122) and US-born (n = 105) Asian American adolescents [Chinese (n = 23; 8.5%), Filipino (n = 48; 17.8%), Japanese (n = 21; 7.8%), Indian (n = 4; 1.5%), Korean (n = 17; 6.3%),

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Vietnamese (*n* = 9; 3.3%), and other (*n* = 20; 7.4%)]. Forty-three (16%) individuals did not provide nativity status (foreign- or US-born) and 53.7% (*n* = 145) did not provide a specific ethnicity. The average ages were 15.70 (SD = 1.90) for Wave I, grades 7-12, 16.13 (SD = 1.63) for Wave II, grades 8-12, and 22.03 (SD = 1.90), for Wave III, ages 18-26. Detailed information about the Add Health study design, measure selection and psychometric properties, and sample is documented elsewhere (Harris et al., 2019; Resnick et al., 1997). In this study we refer to each wave as Time 1 (early to mid-adolescence, age 12-18), Time 2 (mid-adolescence, age 14-18) and Time 3 (young adulthood, age 18-26).

Measures

The study included measures of parenting characteristics, mental health service use, and depression. Demographic information including age, gender, and nativity were included. Ranges for all measures appear in Table 1.

Parenting characteristics. Three types of parenting characteristics were assessed. *Parental control* was assessed by taking the mean of seven items (rated as yes=1 or no=0) that tapped into the extent to which the adolescent is able to make his/her own decisions about various activities (e.g., "Do your parents let you make your own decision about how much TV you watch?"). The mean was reverse-coded by subtracting it from 1. Higher scores indicated greater parental behavioral control (Cronbach's α range for Time 1, 2, and 3 = .64-.66). *Parental care* was measured using a single item that assessed perceived level of care (i.e., "How much do you feel that your parents care about you?") on a scale from 1 (not at all) to 5 (very much). *Parental closeness* was measured by

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summing the responses to perceived closeness to mother and father (i.e., "How close do you feel to your [mother/father?"). The items were rated on a scale from 1 (not at all) to 5 (very much) and the scale demonstrated acceptable internal consistency (Cronbach's α range = .71-.72).

Depression. Depression was assessed using five items that assessed severity of symptoms of depression (i.e., "bothered by things," "trouble keeping mind focused," "felt depressed," "too tired to do things," "felt sad") in the past week. Items were rated on a scale from 0 (never or rarely) to 3 (most or all of the time) and the scale demonstrated good internal consistency (Cronbach's α range = .80-.82).

Counseling use. Mental health service use was measured using a one-item measure that assessed use of counseling services in the past year (e.g., "Did you receive counseling for mental health issues in the past year?"). This variable was coded "1" for those who responded "yes," and coded "0" for those who responded "no."

Statistical Analyses

First, we conducted preliminary analyses to examine the descriptive statistics and correlations among the study variables. Results were used to guide the inclusion of covariates. Second, we used structural equation modeling (SEM) to test our hypotheses about the relationships between parental care, parental control, depression, and mental health service use. We used cross-lagged panel models to examine the reciprocal relationships of the main study variables between and across three time points. The rationale for using a cross-lagged panel model (CLPM) was to account for both autoregressive effects and potential cross-lagged relationships between variables over

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time. We also tested the moderating role of parental control in the relationship between parental care and depression. All models controlled for age and gender.

Our analyses were conducted using Mplus software, which uses full information maximum likelihood (FIML) estimation to handle missing data. This method provides unbiased estimates when data are missing at random (MAR). Model fit was evaluated using several fit indices, including the chi-square statistic, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

Results

Preliminary analyses

Table 1 shows bivariate correlations, means, and standard deviations. The pattern of correlations between parental control, closeness, and care are in the expected directions. The bivariate correlations show that parental control, parental closeness, parental care, depression, and counseling use at time point "*t"* is significantly related to the same at time point "*t* – 1." Higher scores on parenting characteristics (control, closeness, and care) at Time 1 predicted higher scores on parenting characteristics at Time 2. Furthermore, depression at Time 1 predicted worse depression at Time 2, which predicted worse depression at Time 3. Counseling at Time 1 predicted counseling at Time 2, but counseling at Time 2 did not predict counseling at Time 3. A multivariate ANOVA was conducted to examine differences in gender and nativity (foreign- or US-born) for all variables (parenting characteristics, depression, counseling use). Results indicated a significant gender difference in Time 2 depression, F (1, 125) = 5.03, p = .027 (male: M

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= .63, *SD* = .07; female: *M* = .85, *SD* = .07) with girls reporting more depression. Because no significant differences were observed across foreign- and US-born participants, subsequent analyses combined both groups.

Path-analyses results

Figure 1 shows the cross-lagged path-analysis that was conducted using Mplus (Muthén & Muthén, 1998-2011) to test the study hypotheses. The overall cross-lagged path model regressed counseling use and depression variables on parenting variables between time point *n* with time point *n* and *n* + 1, and estimated within time point correlations, the model demonstrated adequate fit, Chi-Square = 50.22, *df* = 41, *p* = .153; *RMSEA* = .029 (95% CI: .000-.053), *p* = .918; *CFI* = .987; TLI = .962.

Hypothesis 1a stated that parenting care and closeness would be related to lower depression within and across time points. Our findings partially supported this hypothesis. At Time 1, only parental closeness (*b* = -.15) was related to less depression. Similarly, at Time 2, parental closeness (*b* = -.24) was related to less depression. However, parental closeness at Time 2 was associated with more depression at Time 3 (*b* = .12). Parental care was not related to depression within time points. None of the parenting characteristics at Time 1 predicted depression at Time 2. More parental care at Time 2 predicted less depression at Time 3 (*b* = -.20). Exploratory analyses showed that parental control was not related to adolescent depression within time points (see Figure 4 in Supplements). However, depression at Time 1 was positively associated with parental control at Time 2 (*b* = .08).

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Hypothesis 1b predicted a significant parental care by control interaction within and across time points such that authoritative parenting (high care and high control) compared to affectionless control (low care and high control) would be related to less depression. One significant path from the interaction term to depressive symptoms was found within Time 2, b = -.35, p < .01. We probed this interaction by comparing the fit indices between models with and without the significant interactions. A Chi-Squared difference test showed a significant change in fit, Δ Chi-Square (14) = 292.25, p = <.01, suggesting that the pathway accounted for a significant proportion of variance in the model. Next, we conducted a simple slopes analysis. Figure 2 shows the main effect of parental care on depression across high and low levels of parental control. At high levels of parental control (+ 1 SD), greater parental care was associated with less depression at Time 2, b = -.13, SE = .05, p = .007, and for low parental control (-1 SD) depression remained the same across levels of care, b =.15, SE = .08, p = .08. That is, parental care was related to less depression for those who reported high parental control and parental care was unrelated to depression for those who reported low parental control.

Hypothesis 2a was not supported as there were no significant relationships between parental care and closeness and mental health service use within or across time points. Exploratory analyses for Hypothesis 2b showed that there was a significant interaction between Time 1 care by control and Time 1 counseling use. At high levels of parental control (+ 1 SD), greater parental care was associated with greater counseling use (OR =1.66, SE = .48, p = .001). At low levels of parental control (-1 SD), greater parental care was related to less counseling use, (OR =.50, SE = .18, p = 007). Figure 3

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shows the main effect of parental care on counseling use across high and low levels of parental control.

Discussion

The main objective of the current study was to examine the role of parenting characteristics in the development of depression and counseling use among Asian American adolescents. Drawing upon a longitudinal, nationally representative sample from the Add Health data set allowed us to study the temporal sequencing between parenting characteristics, depression, and counseling use. Our study relied on interpersonal developmental theories that incorporate context and culture in the study of adolescent depression (Collins & Steinberg, 2007) and help-seeking models that highlight the role of family in the help-seeking process (Rogler & Cortes, 2008; Zhou et al., 2012).

Our results provided partial support for hypothesis 1a that high levels of parental care and closeness would be related to lower levels of depression within and across time points. High parental closeness was related to fewer depressive symptoms within Time 1 and 2 (age 12-18) when adolescents may attempt to increase their autonomy and develop closeness with friends and an interest in romantic relationships. This finding is consistent with previous research that showed adolescents who were close with their mothers were less likely to be depressed if they also had higher friend support starting at age 14-15 (Mak et al., 2021). If adolescents maintain closeness with their parents, it may serve as an additional protective factor as they develop other relationships with peers. Further, Time 2 parental care predicted fewer Time 3 depressive symptoms, whereas Time 2 parental closeness predicted more Time 3 depressive symptoms. The direction of the latter

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relationship was unexpected and inconsistent with our hypothesis and suggests a different role of parental closeness compared to parental care among Asian American adolescents as they transition into early adulthood.

The patterns of results are consistent with an interpersonal perspective that argues that the quality of the parent-child interaction is a central contextual factor in adolescent development (Collins & Steinberg, 2007). First, the results on parental care line up with previous studies that demonstrate the positive effects of parental care across racial and ethnic groups (Shams & Williams, 1995). Second, the directional change between parental closeness and depressive symptoms may be highlighting cultural factors in the development of depression among Asian American adolescents and young adults. Through a cultural lens, high parental closeness is expected during the adolescent stage among Asian Americans. Indeed, they may feel that their behavior highly depends on the behaviors of their parents (i.e., parental closeness), which is consistent with cultural values of familism (Fuligni et al., 1999). However, Asian American adolescents who acculturate at a faster rate than their parents may experience a cultural tension between parental expectations of interdependence and adolescent expectations of autonomy (Juang et al., 1999). Thus, the directional change may reflect a cultural struggle given that parents from Asian cultures may promote autonomy later in adolescence compared to parents from Western cultures (Feldman & Rosenthal, 1990). Although research predominantly finds a negative relationship between parental closeness and depression cross-sectionally, we did not find any longitudinal studies that explored the relationship between parental closeness in mid- to late- adolescence (age 14-18) and depression in young adulthood (age 18-26). Greenberger and Chen (1996) compared cross-sectionally

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Asian American and European American students in junior high and college and found differences in depression arose only in the older sample. The authors suggested that a struggle for autonomy among Asian Americans in young adulthood is related to increased depressed mood (Greenberger & Chen, 1996). An alternative explanation could be that parental closeness in mid- to late adolescence may have interfered with social skills development with peers leading to feelings of inadequacy in young adulthood. The positive longitudinal association between parental closeness and depression needs to be interpreted with caution and merits further research.

Parental control was not associated with depression or counseling use within timepoints. There is little research that has examined the independent role of parental control outside of parental typologies (Baumrind, 1971) and this study helps to further establish that parental control alone is not associated with adolescent depression for Asian Americans. Yet, depression at Time 1 was associated with more parental control at Time 2, suggesting that parents may not allow their children to make independent decisions in mid- to late adolescence (age 14-18) if their children had depressive symptoms in the previous 1-2 years.

We found evidence that partially supported hypothesis 1b. Notably, the interaction between parental care and control on adolescent depression was only significant within Time 2. First, the finding suggests that parental control must be studied within the context of parental care. High parental control coupled with high parental care (consistent with authoritative parenting) was related to less depression at Time 2 (ages 14-18) when adolescents may focus more on individuation and relationships with people outside of their household. The significant interaction only at Time 2 suggests that

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researchers need to study parenting characteristics within a developmental context using longitudinal data. Given that we did not find a relationship between authoritative parenting and depressive symptoms at Time 1, it is possible that adolescent perceptions of control change. Parental control can be perceived as a culturally acceptable parenting characteristic within Asian culture (Chao, 1994), but it can also be perceived as intrusive within mainstream American culture (Rohner & Pettengill, 1985). Asian American adolescents are faced with the dilemma of navigating these two competing perceptions of parental control and as they acculturate to the mainstream American culture, parental control may lead to greater family conflict and more depressive symptoms (Juang et al., 2007). In support of this formulation, we found that higher parental control with higher parental care was associated with lower levels of depression among Asian American youth in our sample.

The second hypothesis that parental care and closeness would be related to less counseling use within and across time points was not supported. Yet, there was a significant interaction between Time 1 care by control and Time 1 counseling use. Specifically, adolescents whose parents had high levels of control and care (authoritative parenting) were more likely to use counseling. Low levels of parental control and greater parental care (consistent with permissive parenting) were associated with lower counseling use. Similar to the first interaction, this finding seems salient within a particular developmental period, namely early to mid- adolescence. Interestingly, one research study found that higher authoritativeness (high care and high control) and social support were associated with lower psychological distress and higher help-seeking intention among Australian adolescents (Maiuolo et al., 2019). This finding is consistent

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with research on Asian American parents' perceptions of helpful ways to address adolescent mental health, which included providing social support, educating their children about mental health, seeking professional help, and identifying the problem/cause (Wang et al., 2020). It also fits with the larger body of literature that authoritative parenting is associated with better emotional adjustment for adolescents (Ng & Wang, 2019; Pinquart & Kauser, 2018). Previous research with Asian American college students showed that loss of face was negatively associated with help seeking attitudes and acculturation was positively associated, which poses questions about how parents' parenting and acculturation may play a role in the decision to use counseling (Leong et al., 2011). Further investigations should examine other factors related to parenting characteristics, such as family conflict, that may serve as mediators in seeking counseling.

Consistent with previous investigations that suggest that parenting characteristics affect mental health differently across developmental periods among adolescents (Greenberger & Chen, 1996), our findings support a developmental approach to the study of parenting characteristics, depression, and counseling use among Asian American adolescents. Further, results provide weak evidence to support contextual theories of help-seeking behavior. Parenting characteristics are related to depressive symptoms among Asian American adolescents but do not predict counseling use. Overall, we highlight the importance of investigating multiple parenting characteristics across different developmental periods while considering cultural factors in the development of depression among Asian American adolescents.

Limitations

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Although this study attempts to address important gaps in the existing literature on Asian American adolescents' mental health, there are a number of limitations that need to be addressed. First, to answer our research questions, we used secondary data analysis of Add Health, which limited us to the existing variables in the dataset. Therefore, some of the constructs we examined are based on one-item questions instead of established multi-item scales. Second, all of the data is based on youth self-report and is subject to mono-reporter bias. Third, although we proposed some of the observed effects to be cultural in nature, we could not include any cultural variables (e.g., acculturation) as they were not available in the dataset. For example, Asian American adolescents who experience higher levels of acculturation family conflict may be at higher risk for depression (Lee et al., 2000). Fourth, even though we had a large sample of Asian Americans, we could not examine ethnic subgroups contributing to the problem of ethnic gloss (Trimble, 2005). Despite these limitations, we believe that our study provides a significant contribution as it uses a nationally representative sample of Asian American adolescents and proposes a comprehensive model that examines relationships between parenting care, closeness, and control, depression, and counseling use longitudinally.

Future Directions

Our findings reveal the dynamic interconnections between parenting characteristics, depression, and counseling use across time in using an innovative study design. In the future, it may be beneficial to examine parents' perceptions of parenting and their relationship with their children to reflect the interactive nature of parenting. Moreover, future research on Asian American families may need to include more robust

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measures of parenting factors and examine a variety of health services (e.g., primary care, religious services, and healers). Also, future research needs to consider the role of mental health stigma as it relates to family support, depression and counseling among Asian Americans. Research with African American adolescents suggested having tolerant attitudes towards therapy and less depression was enhanced by social support (Lindsey et al., 2010). Last but not least, it would be important to examine why parenting effects seem to be stronger in early adolescence and to include other mental health outcomes such as anxiety, substance use, and externalizing disorders.

In summary, we tested a model of parenting characteristics, depression, and use of mental health services among Asian American adolescents. Our findings emphasize the importance of parental closeness for lower depression in early and mid-adolescence (age 12-18) for Asian Americans and the possible switch in direction due to the individuation in young adulthood (age 18-26). In addition, there was support for the positive effects of authoritative parenting on depression in mid-adolescence (age 14-18), whereas permissive parenting was associated with less counseling use in early adolescence. This may be a reflection of the dynamic nature of adolescence and three time points may not capture the full extent to which parenting characteristics, depression, and mental health service use relate to each other. A more nuanced understanding of the temporal relationship between parenting, depression, and counseling among Asian American adolescents suggests the need for depression interventions in early adolescence and the importance of parental closeness and care as protective factors against depression at different time points.

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Table 1. Descriptive statistics and bivariate correlations.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. T1: Parental Control															
2. T2: Parental Control	0.514**														
3. T1: Parental Closeness	-0.064	0.001													
4. T2: Parental Closeness	-0.058	0.021	.612**												
5. T1: Parental Care	-0.126*	-0.007	.418**	.366**											
6. T2: Parental Care	-0.080	-0.083	.334**	.509**	.451**										
7. T1: Depression	0.090	0.111	-.262**	-.244**	-.147*	-0.113									

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8. T2: Depression	0.113	0.041	-.193**	-.373**	-0.016	-.222**	.457**								
9. T3: Depression	0.043	-0.030	-.146*	-.196*	-0.060	-.304**	.299**	.523**							
10. T1: Counseling Use	0.011	-0.076	-0.076	-0.135	-0.029	-.213**	.219**	.181*	.252**						
11. T2: Counseling Use	-0.039	-0.141	-.201**	-.252**	-0.115	-.252**	.159*	.326**	.314**	.360**					
12. T3: Counseling Use	-0.077	0.034	-0.031	-0.094	0.001	0.009	0.118	0.100	.381**	0.128	-0.048				
13. Age	-0.269**	-.261**	-.197**	-.233**	-0.100	-0.076	.160**	0.064	-0.122	0.027	0.079	0.010			
14. Gender	0.048	0.086	.200**	.161*	0.012	.160*	-.126*	-.241**	-.188**	-0.099	-0.124	-.159*	-0.035		
15. Nativity	-0.085	0.034	0.014	-0.019	0.057	0.032	0.052	-0.024	.153*	0.104	0.076	0.112	-0.129	0.013	
Mean	0.267	0.263	4.240	3.944	4.706	4.693	0.740	0.744	0.542	0.093	0.063	0.053	15.700	0.519	0.537
SD	0.240	0.244	0.907	0.934	0.717	0.712	0.528	0.535	0.452	0.291	0.243	0.225	1.898	0.501	0.500
Range	0-1	0-1	1-5	1-5	1-5	1-5	0-2.89	0-2.60	0-2.60	0-1	0-1	0-1	12-21	0-1	0-1

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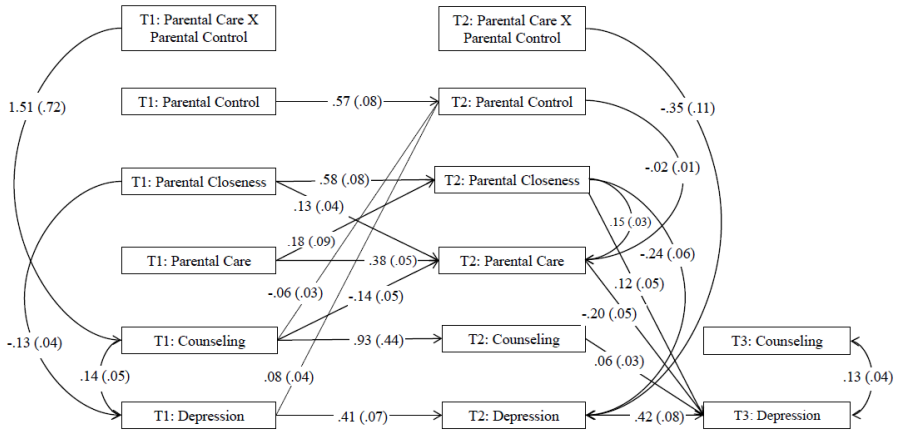


Figure 1. Cross-lagged path analysis.

Note: Significant unstandardized coefficients (related to the hypotheses) are presented. Gender was covaried with T1-T3: Depressive Symptoms, and T1 Parental Closeness, and age was covaried with T1: Parental Closeness and Control, and Depression. Model fit: Chi-Square = 50.22, *df* = 41, *p* = .153; *RMSEA* = .029 (95% CI: .000-.053), *p* = .918; *CFI* = .987; TLI = .962.

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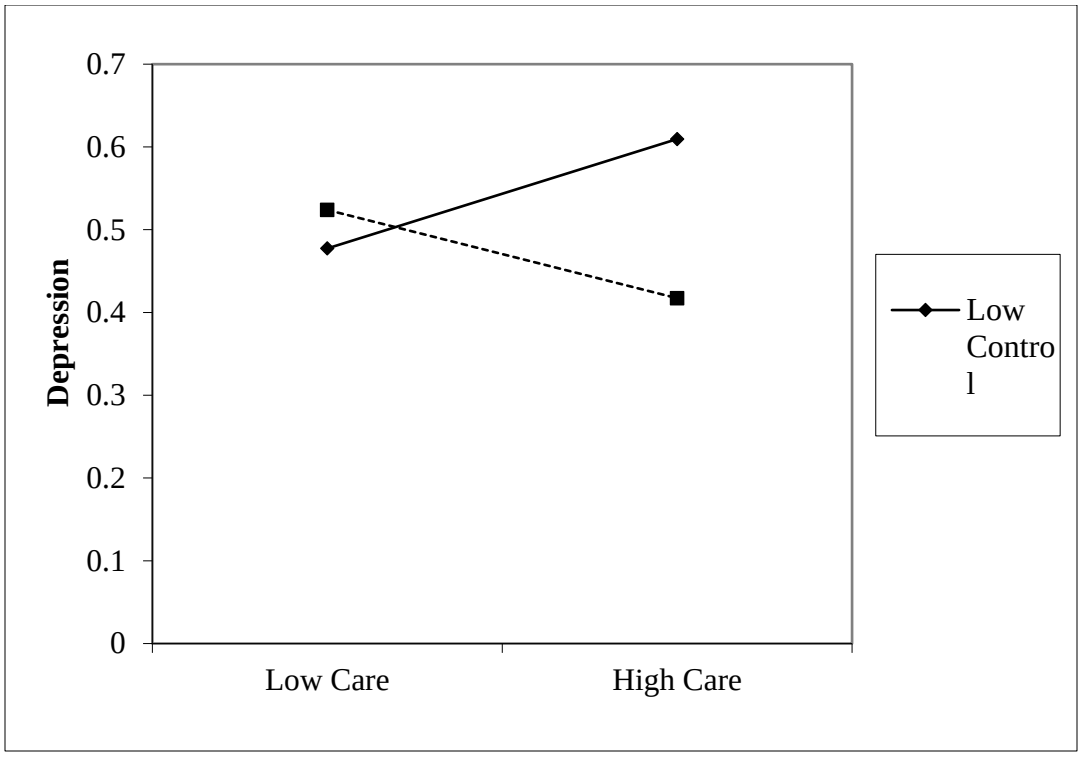


Figure 2. Main effect of parental care on depression across high and low levels of parental control

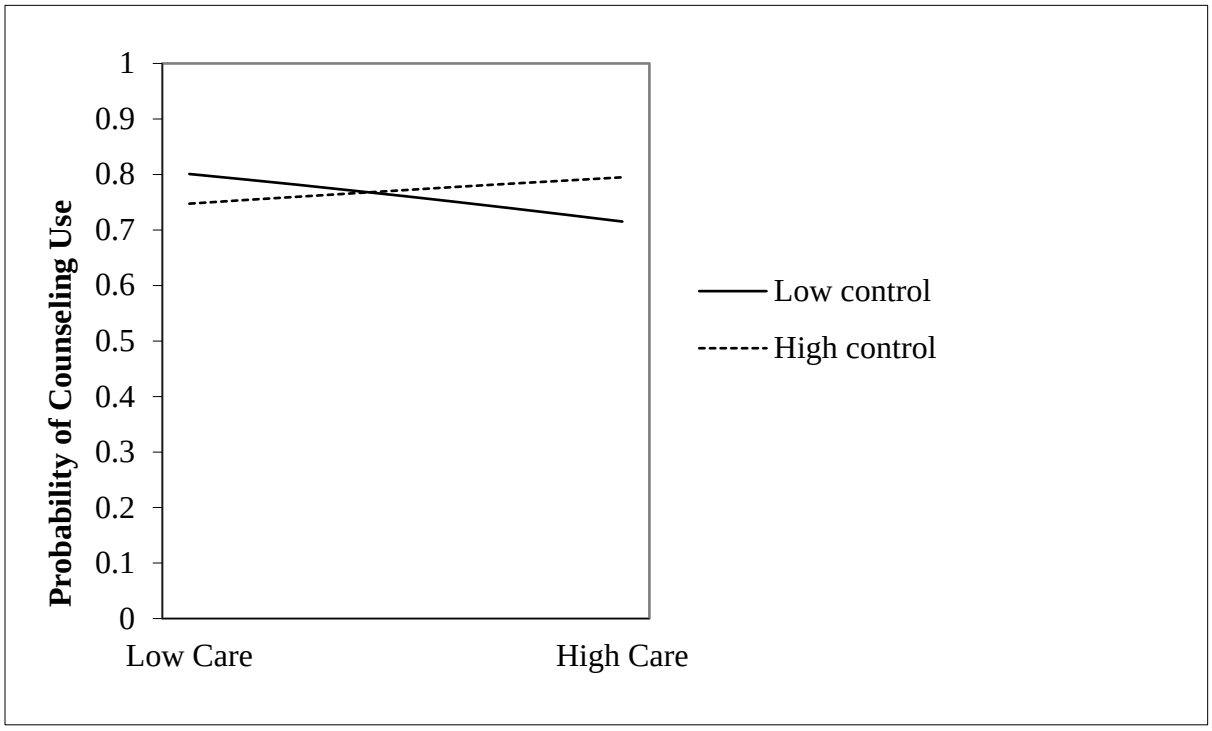


Figure 3. Main effect of parental care on counseling use across high and low levels of parental control.

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