Stability and Change in Adjustment Profiles Among Chinese American Adolescents: The Role of Parenting

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Abstract

Asian American adolescents are often depicted as academically successful but psychologically distressed, a pattern known as the achievement/adjustment paradox. In a sample of 444 Chinese American adolescents (54 % females), we identified three distinct patterns of adjustment in early adolescence, middle adolescence, and emerging adulthood: the *well-adjusted* group, which was the largest, exhibited high achievement and low psychological distress; the *poorly-adjusted* group exhibited poor achievement and moderate distress; and the *paradox* group exhibited relatively high achievement and high distress. More than half of the adolescents remained in the same profile over time. Adolescents with supportive parents were more likely to stay well-adjusted, and those with "tiger" parents were more likely to stay in the paradox group over time. The present study focused on the critical role of parenting in early adolescence, highlighting variations in Chinese American adolescents' adjustment in multiple domains over time.

Keywords

Achievement-adjustment paradox; Chinese American; Stability and change; Parenting

Introduction

As adolescents traverse the developmental periods from early adolescence to emerging adulthood, they go through a series of important developmental transitions. Despite the vulnerabilities that all adolescents experience during their development, many Chinese American adolescents seem to be able to "successfully" navigate through these transitions and maintain high academic achievement (Fuligni 1997; Ryan and Siebens 2012). However, recent studies on Chinese American students have demonstrated the importance of investigating their socioemotional adjustment in addition to their achievement, as there are some who experience adjustment difficulties despite their academic successes (Hsin and Xie 2014; Qin 2008). Moreover, treating Chinese American students as a homogeneously high-achieving group is also problematic, as it overlooks the potential existence of a subgroup of

Chinese American students who do not exhibit exceptional achievement (Lee and Zhou 2014). Given that Chinese American students are a diverse group, with diverse adjustment patterns, the question then becomes, what predicts the diversity? Early contextual factors, such as parenting in early adolescence, have been shown to play a considerable role (Dumas et al. 2009; Luyckx et al. 2011). Thus, in the current study, we investigate how Chinese American adolescents' adjustment unfolds during the transition across early adolescence, middle adolescence, and emerging adulthood, and examine how parenting at early adolescence may set adolescents on different paths of transition.

Stability and Change in Adjustment Patterns Among Chinese American Adolescents

Many indicators of Chinese American adolescents' high academic achievement have been documented. For example, on the aggregate level, Chinese American children are found to devote more time to studying than their non-Chinese counterparts, and they tend to have better grades and standardized test scores (Fuligni 1997; Snyder and Dillow 2010). Moreover, national data suggest that Chinese Americans ages 25 and older have higher educational attainment than any other racial/ethnic groups (Ryan and Siebens 2012).

The term "model minority" has been widely used by the public to describe Asian Americans who achieve educational success despite their minority status (Lee 2009). Underlying this label is the implicit assumption that all Asian Americans are overachievers who do not experience adjustment problems. This masks important within-group variability in Asian American students, and even in Chinese American students, with the result that underachieving Chinese American students may be overlooked entirely. The "model minority" stereotype also fails to acknowledge the fact that adolescent adjustment is multifaceted. Relatively positive adjustment in one domain, such as academics, does not guarantee similarly positive adjustment in another, such as socioemotional functioning. For example, some Chinese American adolescents with high academic achievement have reported high levels of academic pressure and emotional distress (Kim et al. 2013b; Qin 2008). Some high-achieving Chinese American adolescents have also reported high rates of depression and high parent–child alienation and conflict (Qin et al. 2012). In order to gain a more nuanced understanding of adolescents' overall functioning, scholars and educators of adolescents must take into account not only academic adjustment (i.e., academic achievement, school engagement, hours of study), but also socioemotional aspects (i.e., academic pressure, depressive symptoms, alienation from parents) of their development.

When academic and emotional aspects of adolescent functioning are considered together, different subgroups of Chinese American adolescents may be identified based on their overall adjustment patterns. A generally well-adjusted subgroup of Chinese American adolescents can be expected to emerge, with indicators of positive adjustment in both academic and socioemotional domains. A second subgroup may comprise adolescents who are poorly adjusted, both academically and psychologically. Finally, there may indeed be a subgroup of adolescents who demonstrate a paradoxical pattern of high academic achievement combined with poor psychological adjustment. Adolescents in this group may be experiencing emotional adjustment difficulties that get overlooked because of their academic success.

In addition to the variability in overall adjustment patterns at a specific developmental period, there is also substantial variability in adolescents' developmental stability and change. The development from early adolescence to middle adolescence and emerging adulthood involves many transition experiences, including two major transitions in one's educational career: first, from middle school to high school; and again from high school to college or the workforce. Although most individuals face normative challenges academically and socioemotionally when they make these developmental transitions, both domains of adjustment generally remain stable across time. For example, adolescents' early academic performance and engagement in secondary school are predictive of their later likelihood of high school completion and college grades (Janosz et al. 2008; Zwick and Sklar 2005). Likewise, considerable stability has been found for socioemotional indicators of adjustment across developmental periods, from adolescence to young adulthood, for internalizing/externalizing behaviors, identity, and personality (Kroger et al. 2010; Leadbeater et al. 2012; Meeus et al. 2011). Some evidence for developmental changes was also found in the same studies, indicated by improvements, declines, and fluctuations experienced by small subgroups of the adolescents in academic or socioemotional well-being during their transition from early adolescence to emerging adulthood (Janosz et al. 2008; Meeus et al. 2011).

As separate examinations of academic and socioemotional development show both general stability and considerable (though relatively limited) changes, it is reasonable to expect similar levels of stability and change when the two domains are combined and explored simultaneously. That is, the overall adjustment patterns of many Chinese American adolescents may remain consistent as they transition from early adolescence, to middle adolescence, and finally to emerging adulthood. However, for other individuals, changes may occur in their overall adjustment patterns. For example, adolescents who are generally well-adjusted may experience a decline in the emotional and/or academic domain and become either paradoxically or poorly adjusted. Similarly, those who are poorly adjusted may manage to improve in one or both domains and move upwards along the way to positive adjustment. In the case of adolescents who are paradoxically adjusted, they may manage to improve their emotional adjustment and become well-adjusted in both domains, or they may experience deterioration in their academic performance, and become generally poorly-adjusted over time. According to the principles of multifinality, a group of children starting off with similar adjustment patterns may eventually come to have diverse developmental outcomes, depending on contextual factors (Cicchetti and Rogosch 1996). For this reason, the overall parenting environment at early adolescence, which is an important indicator of the family context, may set Asian American students on various developmental paths of adjustment.

Parenting Styles and Adolescent Long-Term Development

Parenting styles have been categorized as authoritarian, authoritative, indulgent, or neglectful (Maccoby and Martin 1983). Earlier studies have demonstrated that authoritative parenting assessed at adolescence was linked to the highest academic achievement and best psychosocial outcomes, neglectful parenting was linked to the reverse, and authoritarian and indulgent parenting were linked to negative outcomes in some specific domains, such as

poor self-concept or frequent substance use (Lamborn et al. 1991). Although it is clear that parenting styles are linked to adolescents' academic and socioemotional functioning, findings from extant studies cannot simply be generalized to Chinese American adolescents. First, when the classic typologies are used, Chinese parenting is often categorized as "authoritarian", a term that does not capture the culture-related characteristics of Chinese parenting practices and thus cannot fully explain Chinese American adolescents' developmental outcomes (Chao 1994; Kim et al. 2013b). Second, although educational outcomes and psychosocial outcomes can be predicted by different parenting styles when each domain is examined separately, it is less clear how any of the established parenting typologies can predict an overall adjustment pattern, one in which academic achievement and psychological adjustment are combined. Therefore, to determine the long-term effects of early parenting on the development of Chinese American adolescents' overall functioning, researchers need to develop parenting typologies that are more distinctively Chinese American, and to use these culturally relevant typologies when examining adolescent outcomes in this population. Additionally, it is important to examine outcomes from a holistic perspective by treating adolescents' educational and psychological trajectories as paired developmental processes.

After the publication of the New York Times bestseller *Battle Hymn of the Tiger Mother* (Chua 2011), the term "tiger parenting" became well-known to the American public. Assumed to be synonymous with "Chinese" parenting, tiger parenting was believed to promote children's academic achievement at the cost of their psychological well-being. A recent study took a person-centered approach to identify culturally specific parenting profiles among Chinese American families with adolescents. In the children's early adolescence, four parenting profiles were identified in mothers, and three were identified in fathers, with a common profile being "tiger parenting" (Kim et al. 2013b). The other culturally specific profiles that emerged were "supportive", "easygoing", and "harsh" parenting ("harsh" parenting was found only for mothers). The "tiger parenting" style identified in this study was characterized by high scores on both positive and negative parenting dimensions, which were expanded to include a culturally meaningful dimension of "shaming." The other three culturally specific typologies of parenting were more nuanced versions of the classic parenting styles, with "supportive" akin to "authoritative," "harsh" akin to "authoritarian," and "easygoing" akin to "indulgent." The same study took a variable-centered approach in linking these four culturally specific parenting profiles with adolescents' academic and psychological adjustment simultaneously. The findings indicated that children of supportive parents had the most positive academic and socioemotional adjustment among the four groups. There was also initial evidence that tiger parenting is associated with a relatively high GPA, but also with psychosocial maladjustment, including academic pressure and depressive symptoms.

Although this study was successful in profiling Chinese American parenting types, the findings were limited due to the variable-centered and cross-sectional nature of the relations that emerged between parenting profiles and adolescent outcomes. For example, even though tiger parenting seemed to be related to a relatively high GPA and also to psychological maladjustment on the aggregate level, it could not be determined whether a high GPA for a specific adolescent of tiger parents was always paralleled by psychological maladjustment

for that same adolescent. Furthermore, the long-term effect of the parenting environment during early adolescence was not captured.

The bioecological model of human development emphasizes the importance of proximate ecological systems (e.g., families during adolescence), or more specifically, the socializing agents within these systems (e.g., parents) in determining stability and change in developmental outcomes (Bronfenbrenner and Morris 2006). Recent empirical studies also support the idea that there are long-lasting effects of parenting that can be either developmentally promotive or disruptive. For example, adolescents who reported authoritative parenting at age 17 were more likely to have developed a more mature identity and better emotional adjustment by age 26 (Dumas et al. 2009). Parenting styles have also been found to relate differentially to trajectories of children's maladaptive behaviors from Grade 1 to Grade 12, and authoritative parenting was linked to the most optimal developmental outcomes— characterized by declines or minimal levels of increase in alcohol use, cigarette use, antisocial behavior, and internalizing symptoms—among all parenting styles (Luyckx et al. 2011).

Although these studies provide valuable information on the ways in which parenting styles during an early developmental period may predict later developmental outcomes, they are limited by their variable-centered designs. As mentioned before, using a person-centered approach allows researchers to classify adolescents into different adjustment profiles, but these may or may not stay the same from early adolescence to emerging adulthood. Moreover, early adolescence has been found to be an especially sensitive period for Chinese American adolescents in terms of their susceptibility to the negative effects of unsupportive parenting upon academic and socioemotional well-being (Kim et al. 2013a). Surprisingly, however, there is little research that has investigated the associations between parenting during early adolescence and the stability or change of adolescent adjustment profiles. Based on the bioecological model and the variable-centered findings of previous studies, promotive parenting during early adolescence may be associated with stable positive adjustment or improvements in overall adjustment, whereas disruptive parenting may predict stable negative adjustment or declines in overall adjustment. Thus, it is plausible that adolescents who perceive their parents to be supportive during early adolescence may be more likely to either stay generally well-adjusted or show improvements in their overall adjustment over the course of adolescence and emerging adulthood, compared to adolescents who report having tiger parents or harsh parents. It is also possible that adolescents with tiger parents are more likely to continuously exhibit the paradoxical adjustment pattern across developmental periods, compared to those who report having supportive or easygoing parents. Finally, it may be that adolescents of harsh parents are those most likely to remain in the poorly adjusted subgroup, or to experience adjustment declines over time.

The Current Study

Building on the previous literature, the current study explored the following research questions. First, we aimed to identify different adjustment profiles among Chinese American adolescents, taking into account both academic adjustment (i.e., academic achievement, school engagement, hours of study) and socioemotional adjustment (i.e., academic pressure,

depressive symptoms, alienation from parents). We expected that at least three groups of adolescents would be identified: a well-adjusted group with positive adjustment in both domains, a poorly-adjusted group with negative adjustment in both domains, and a paradoxical group with high academic achievement but poor socioemotional adjustment. Second, we aimed to examine the potential stability and change in adolescents' adjustment profiles as they transitioned from early adolescence to middle adolescence, and to emerging adulthood. We hypothesized that a significant proportion of adolescents would remain in the same subgroup, but that there would be some adolescents who might show improvements or declines in their overall adjustment. Third, we aimed to investigate whether parenting typologies at children's early adolescence would predict their concurrent adjustment profile memberships, and more importantly, the stability or change of these memberships over time. We expected that children of supportive parents, compared to children of easygoing, tiger, and harsh parents, would either show consistently positive overall adjustment or show improvements in their adjustment, whereas children of harsh parents, compared to children whose parents were classified into one of the other three groups, would either show consistently poor adjustment or declines in their overall adjustment. Furthermore, we expected tiger parenting to be associated with consistently paradoxical adjustment. In the current study, we explored the links between parenting and the stability and change of adolescent adjustment separately for mothers and fathers.

Methods

Participants

Data were drawn from a three-wave longitudinal study of 444 Chinese American families. Among the families participating in Wave 1, 350 families participated in Wave 2 4 years later, and 330 families participated in Wave 3 8 years later. Slightly over half (54 %) of the adolescent sample is female. Adolescents' ages ranged from 12 to 15 ($M = 13.03$, $SD = 0.73$) years old at Wave 1. Adolescents were in 7th or 8th grade at Wave 1 and 11th or 12th grade at Wave 2. By Wave 3, the majority (93 %) of the sample were in a 2- or 4-year college, and 7 % were not in school (i.e., had graduated from high school or were high school dropouts). Median family income was between $30,001 and $45,000 across all three waves. The median parental education level was some high school education for both fathers and mothers. The socioeconomic status (SES) of the current sample was comparable to that of the larger Chinese American population in the studied areas, with a median income of $35,000–$49,999 and a median education level of high school graduate (U.S. Census Bureau 2000a, b). The SES of the current sample was slightly lower than that of the larger Chinese American population in the U.S. (median income was $51,444, and median education level was some college education; U.S. Census Bureau 2000a, b). Most of the adolescents (75 %) were born in the U.S., whereas a majority of parents (91 % of the mothers and 88 % of the fathers) were born outside the U.S. Most of the participating families hailed from Hong Kong or southern provinces of China; fewer than 10 families originally came from Taiwan. Parents' occupations ranged from unskilled laborer (e.g., construction worker or janitor) to professional (e.g., banker or computer programmer). The majority speaks Cantonese as their home language; less than 10 % of the families speak Mandarin.

Procedure

Participants were initially recruited from seven middle schools in major metropolitan areas of Northern California. With the aid of school administrators, Chinese American students were identified, and all eligible families were sent a letter describing the research project in both Chinese and English. The forty-seven percent of these families that returned parent consent and adolescent assent received a packet of questionnaires for the mother, father, and target adolescent in the household. Participants were instructed to complete the questionnaires alone and not to discuss answers with friends and/or family members. They were also instructed to seal their questionnaires in the provided envelopes immediately following the completion of their responses. Within approximately 2–3 weeks after sending the questionnaire packet, research assistants visited each school to collect the completed questionnaires during the students' lunch periods. Among the families who agreed to participate, 76 % returned surveys. Four years after the initial wave, families were asked to participate in the second wave, and after another 4 years had passed, they were asked to participate in the third wave of data collection. Families who returned questionnaires were compensated a nominal amount of money ($30 at Wave 1, $50 at Wave 2, and $130 at Wave 3) for their participation.

Questionnaires were prepared in English and Chinese. The questionnaires were first translated to Chinese and then back-translated to English. Any inconsistencies with the original English version scale were resolved by bilingual/bicultural research assistants with careful consideration of culturally appropriate meanings of items. Around 71 percent of parents used the Chinese language version of the questionnaire and the majority (85 %) of adolescents used the English version.

Attrition analyses were conducted at Waves 2 and 3 to compare families who participated with those who did not on the demographic variables measured at Wave 1 (i.e., parental education, family income, parent and child generational status, parent and child age). Only one significant difference emerged: boys were less likely than girls to have continued participating ($\chi^2(1) = 7.20$–10.41, $p < .01$). Adolescent sex is included as a covariate for all analyses.

Measures

Descriptive statistics for all the study variables are displayed in Table 1.

Adolescent Adjustment—Adolescent adjustment was measured by academic outcomes (i.e., academic performance, school engagement, hours of study) and socioemotional wellbeing (i.e., academic pressure, depressive symptoms, feelings of alienation from their parents). The internal consistency for each outcome was high across waves ($\alpha = .76$–$.90$). The internal consistencies for academic performance and hours of study were not computed because each had only a single item.

In relation to adolescents' academic outcomes, *academic performance* was measured at Waves 1 and 2 using unweighted Grade Point Average (GPA, without physical education courses) from school records, using a scale ranging from 0 to 4. In Wave 3, young adults

reported their current grades using a scale ranging from (1) "A+" to (13) "F". These grades were then converted to a scale ranging from 0 to 4, with higher scores indicating better academic performance. *School engagement* was rated by adolescents based on five items adapted from the Iowa Youth and Families Project (Conger and Elder 1994). A sample item is, "I usually finish my homework." Ratings ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Adolescents reported their hours of study by answering a single question ("During a typical weekday, how many hours do you spend studying or doing schoolwork?"). Responses ranged from 1 (*less than 1 h*) to 8 (*more than 7 h*). Young adults who were not in school at Wave 3 were treated as having missing data for grades, school engagement, and hours of study at this particular wave.

In relation to socioemotional adjustment, to assess *academic pressure*, adolescents rated three items on how pressured they felt to succeed in school using a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) (Kim et al. 2013b). Adolescent *depressive symptoms* were assessed with the Center for Epidemiologic Studies of Depression Scale (CES-D) (Radloff 1977). Using a four-point scale ranging from 0 (*rarely or none of the time*) to 3 (*most or all of the time*), adolescents rated 20 items about their depressed mood. *Parent–child alienation* was assessed using the alienation subscale of the Inventory of Parent and Peer Attachment (Armsden and Greenberg 1987). On a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), adolescents rated eight items on their feelings of alienation from their parents (e.g., do not get much attention at home).

Parenting Profiles—Parenting profiles at Wave 1 were identified from another study (Kim et al. 2013b) using latent profile analysis. Separate parenting profiles were created for mothers and fathers based on adolescent reports, resulting in three consistent parenting profiles for mothers and fathers (supportive, tiger, and easygoing), and a harsh parenting profile unique to mothers. Eight parenting dimensions were used to classify the parenting profiles: parental warmth, inductive reasoning, parental monitoring, democratic parenting, parental hostility, psychological control, shaming, and punitive parenting. The internal consistency for each parenting dimension ranged from acceptable to high (α = .67 to .94).

Adapting measures from the Iowa Youth and Families Project (Conger and Elder 1994), we assessed *parental warmth* with eight items about an affective dimension of parenting (e.g., act loving, affectionate, and caring) and *parental hostility* with seven items about parents' hostile behavior towards their children (e.g., shout or yell) on a seven-point scale. Using adapted measures from the same project, we assessed *inductive reasoning* with four items (e.g., give reasons for decisions) and *parental monitoring* with three items (e.g., know whereabouts of the target child) on a five-point scale. Using two subscales of the Parenting Practices Questionnaire (Robinson et al. 1995), we assessed *democratic parenting* with five items about parents' autonomy-granting behavior (e.g., encourage the target child to freely express himself/herself) and *punitive parenting* with four items about parents' use of punitive discipline (e.g., punish the target child by taking privileges away with little or no explanation) on a five-point scale. *Psychological control* was assessed using a three-point scale, where adolescents rated eight items about parents' attempts to regulate children's psychological experience (e.g., change the subject whenever the target child has something to say) (Barber 1996). *Shaming* was assessed using a three-point scale, where adolescents

rated five items about parents' attempts to socialize their children by inducing feelings of shame (e.g., teach child what not to do by using examples of bad behavior in other youths) (Kim et al. 2013b).

Parenting profiles were identified based on four positive parenting dimensions (i.e., parental warmth, inductive reasoning, parental monitoring, democratic parenting) and four negative parenting dimensions (i.e., parental hostility, psychological control, shaming, punitive parenting). Specifically, supportive parenting was generally high on positive dimensions and low on negative dimensions; tiger parenting tended to be high on all the dimensions; easygoing parenting was generally low on all the dimensions; and harsh parenting was low on positive dimensions and high on negative dimensions.

Demographic Information—Adolescents reported their sex, age, and whether they were born in the U.S. Additionally, fathers and mothers reported their age, highest level of education attained and whether they were born in the U.S. Parents' highest level of education was assessed using a 9-point scale, ranging from (1) "no formal schooling" to (9) "finished graduate degree (medical, law, Master's degree, etc.)." For each family, the father's and mother's responses were averaged.

Analysis Plan

Data analysis proceeded in three steps. First, we conducted latent transition analysis (LTA) to explore adolescent adjustment profiles and their stability and change over time. LTA explores subpopulations on a range of indicators and simultaneously allows individuals to transition across groups over time (Collins and Lanza 2010). In the current study, we used multiple adjustment indicators across three waves. These indicators included adolescents' Grade Point Average (GPA), school engagement, hours of study, academic pressure, depressive symptoms, and feelings of alienation from their parents. As a preliminary step, we first conducted latent profile analysis (LPA) to explore potential subpopulations within each wave (Collins and Lanza 2010). LPA results are informative in terms of the latent structures within waves and changes in the latent structures across waves, yet they are only proximal to the optimal solutions in the latent transition models (Collins and Lanza 2010). In conducting both LPA and LTA, a series of models estimating two to five profiles were tested sequentially, and an optimal solution was then selected based on loglikelihood, BIC, and ABIC (Nylund et al. 2007). Specifically, larger loglikelihood and smaller BIC and ABIC values indicated better fit to the data. After enumerating adolescents' adjustment profiles at each wave, we identified the stability and change in their adjustment profiles across waves. Specifically, we identified adolescents who had the same adjustment profile consistently over time, those who improved from a poorer adjustment status to a better one, those who experienced declines in their adjustment, and those who demonstrated both improvements and declines across the three waves. These categories of adjustment stability and transition were used in subsequent analyses.

Next, we conducted two sets of analyses to investigate the links between parenting profiles and adolescent adjustment profiles. Parenting profiles were created in our previous work (Kim et al. 2013b), while adolescent adjustment profiles were created in the first set of

analyses in the present study. We first examined concurrent relationships between parenting profiles and adolescent adjustment profiles at Wave 1. We then tested longitudinal relationships between parenting profiles at Wave 1 and the stability or change in adolescent adjustment profiles across the three waves. We used multinomial logistic regressions, which estimate the relative possibility of being in a given class compared to a reference class when there are more than two categories in the outcome variable (Hosmer and Lemeshow 2004). In the current study, we estimated the effect of parenting profiles on the relative possibility of being in a given adjustment group compared to the reference group. Parenting profiles were captured by dummy variables, such that the estimate for each dummy variable represented the effect of a given parenting profile relative to the reference parenting profile. For example, the estimate for paternal easygoing parenting (with supportive parenting as the reference) on adjustment group A (with adjustment group B as the reference) represented the relative likelihood of adolescents with easygoing fathers to be in adjustment group A rather than B, compared to adolescents with supportive fathers. Both the reference parent profile and the reference adjustment group were rotated to examine all possible comparisons. In order to control for Type I error occurring as a result of multiple hypothesis testing (Shaffer 1995), we reported all the significant findings at the level of $p < .05$ in the table, but only interpreted findings that were significant at the level of $p < .01$. We controlled for adolescents' demographic characteristics in all the analyses.

All the analyses were conducted in Mplus 7.11 (Muthén and Muthén 1998–2015). Missing data is handled by Mplus with full information maximum likelihood (FIML), which uses all the available information in its estimates and is thus recommended among the current methods of handling missing data (Graham 2009).

Results

Exploring Stability and Change in Adolescent Adjustment Profiles

Our first set of analyses explored the subpopulations in adolescent adjustment across three waves. Latent transition analyses were used to capture both stability and change in the subpopulations. As recommended by Collins and Lanza (2010), we conducted separate latent profile analysis (LPA) for adolescent adjustment within each wave to identify the number of adjustment profiles, and a 3-class solution emerged as optimal across all three waves. Because the optimal solutions from LPA were stable across waves, we conducted latent transition analyses (LTA), which constrained the number of profiles at each wave to be the same and estimated a series of models with two, three, four, and five profiles sequentially. Loglikelihood for the 5-class model was not replicated with increased numbers of random starts, which often indicates an over-extraction of classes. From the 2-class to the 4-class model, we observed an increase in the loglikelihood values and a decrease in the BIC and ABIC values, suggesting an improvement in model fit. However, the changes in loglikelihood, BIC, and ABIC values all slowed down from the 3-class to the 4-class solution; thus, we identified the 3-class solution as optimal.

Adjustment profiles at each wave were then labeled based on adolescents' academic achievement and socioemotional wellbeing. At Wave 1 (see Fig. 1), over half (57 %) of the sample displayed the best academic adjustment (i.e., the highest GPAs, highest levels of

school engagement, and most hours of studying) and socioemotional adjustment (i.e., the lowest levels of academic pressure, depressive symptoms, and feelings of alienation from their parents); thus, we assigned this group of adolescents to the "well-adjusted" profile. Another 21 % of the sample displayed the poorest academic adjustment, along with relatively high levels of socioemotional distress; we placed these adolescents in the "poorly-adjusted" group. The last group of adolescents (22 % of the sample) displayed a mixed pattern of adjustment: even though they invested a similar number of hours to study and had only slightly lower GPAs than the well-adjusted group, these students experienced relatively high levels of socioemotional distress. This pattern was consistent with our conceptualization of the academic achievement/psychological adjustment paradox, and was labeled as the "paradox" group accordingly. Profiles at Waves 2 and 3 exhibited similar patterns, and we used the same set of group labels as in Wave 1. Students who were not in school at Wave 3 were all identified as belonging to the poorly-adjusted group by the LTA analyses. Table 2 presents descriptive statistics for each indicator in each group, as well as group differences on each indicator based on multivariate analysis of variance (MANOVA). A summary of classifications across waves is presented in Table 3.

These classifications across waves also enabled us to examine stability and change in adolescents' adjustment profiles across time. Over half (55 %) of the sample exhibited a stable adjustment pattern across the three waves. Among these adolescents, 38 % of the overall sample had a well-adjusted profile, 15 % had a paradox profile, and 2 % had a poorly-adjusted profile that did not change over time. A substantial portion (45 %) of the sample did exhibit changes in their adjustment profiles. Considering the shift from a poorly-adjusted profile to a paradox profile as an improvement, 22 % of the overall sample showed improvements in their adjustment profiles across the three waves, and another 18 % of the overall sample showed declines. The rest, 5 % of adolescents, exhibited both improvements and declines in their adjustment profile changes (e.g., shifting from a paradox profile at Wave 1 to a well-adjusted profile at Wave 2 and back to a paradox profile at Wave 3). Altogether, we identified six patterns of stability and change in adolescents' adjustment profiles across time (i.e., stable well-adjusted, stable paradox, stable poor, improved, declined, changing without a clear trend) and linked them to parenting profiles in the following analyses.

Linking Parenting Profiles to Adolescent Adjustment Profiles

Concurrent Links at Wave 1—In linking parenting profiles to adolescent adjustment profiles, we first examined concurrent relationships between these two constructs at Wave 1. We rotated the reference group for both parenting profiles and adjustment groups to examine all possible comparisons, resulting in a total of 4 multinomial regression analyses for paternal parenting, and a total of 6 for maternal parenting. Table 4 presents results for all multinomial regression analyses. For paternal parenting (see the upper portion of Table 4), adolescents with supportive fathers were more likely than those with tiger fathers to be in the well-adjusted group as opposed to the poorly-adjusted and paradox groups. In contrast, adolescents with tiger fathers were more likely than those with supportive and easygoing fathers to be in the paradox group as opposed to the well-adjusted and poorly-adjusted groups.

For maternal parenting (see the lower portion of Table 4), adolescents with supportive mothers were more likely than those with easygoing, tiger, and harsh mothers to be in the well-adjusted group. In contrast, adolescents with tiger and harsh mothers were more likely than those with supportive mothers to be in the paradox group as opposed to the poorly-adjusted group. Adolescents with harsh mothers were also more likely than those with easygoing mothers to be in the paradox group compared to the well-adjusted group.

To summarize, adolescents with supportive fathers and mothers were more likely to be well-adjusted. In contrast, adolescents with tiger fathers and mothers, and adolescents with harsh mothers, were more likely to be in the paradox group.

Longitudinal Links—Next, we examined the longitudinal relationships between parenting profiles at Wave 1 and the stability and change in adolescents' adjustment profiles across the three waves. We rotated the reference group for both parenting profiles and adjustment transition groups to examine all possible comparisons, resulting in a total of 10 multinomial regression analyses for paternal parenting, and a total of 15 for maternal parenting. Table 5 presents results for all multinomial regression analyses.

For paternal parenting (see the upper portion of Table 5), adolescents who perceived their fathers as supportive tended to stay in the well-adjusted group, and adolescents who reported having tiger fathers tended to remain in the paradox group over time. Specifically, adolescents with tiger fathers were more likely than those with supportive fathers to be in the improved or the stable-paradox adjustment group as opposed to the stably well-adjusted group; they were also more likely than those with supportive fathers to be in the stable-paradox group than in the declined adjustment group. Moreover, adolescents with tiger fathers were more likely than those with easygoing fathers to be in the stable-paradox group than in the stably well-adjusted group.

Moving to maternal parenting (see the bottom portion of Table 5), adolescents who perceived their mothers as supportive tended to have a stably well-adjusted profile, but were less likely to stay in the paradox group over time. Specifically, adolescents with easygoing mothers were more likely than those with supportive mothers to be in the stable-paradox group as opposed to the stably well-adjusted group or the declined adjustment group. Adolescents with tiger mothers were more likely than those with supportive mothers to be in the improved adjustment or the stable-paradox group as opposed to the stably well-adjusted or the declined adjustment group. Finally, adolescents with harsh mothers were more likely than those with supportive mothers to be in the stable-paradox group than the stably well-adjusted, improved, or declined adjustment groups.

In summarizing the overall patterns, adolescents with supportive fathers and mothers were more likely to be classified into the stably well-adjusted group. In contrast, adolescents with tiger fathers and mothers and adolescents with harsh mothers were more likely to stay in the paradox group over time.

We also conducted sensitivity analyses to examine links between parenting profiles and a more nuanced classification of stability and change in adjustment profiles over time. This set

of analyses tested whether parenting profiles were similarly associated with the two subgroups of the improved profile, namely students who changed from the poorly-adjusted to the paradox profile and students who changed from either the poorly-adjusted or the paradox profile to the well-adjusted profile over time. We also tested whether parenting profiles were similarly associated with the two subgroups of the declined profile, namely students who changed from the paradox to the poorly-adusted profile over time and students who changed from the well-adjusted profile to either the poorly-adjusted or the paradox profile over time. Similar patterns were observed for the two improved subgroups and for the two declined subgroups, respectively. For example, in the primary analyses, adolescents with tiger mothers were more likely than those with supportive mothers to be in the improved group than in the stably well-adjusted group ($B = 1.35$, $p < .01$). The same finding emerged for the two more nuanced improved groups, the poor-to-paradox group ($B = 1.71$, $p < .01$) and the poor-to-well/paradox-to-well group ($B = 1.25$, $p < .01$). This suggests that our findings hold, regardless of whether we tested the subgroups separately, as in the sensitivity analyses, or jointly, as in our current analyses.

Discussion

Given that most previous studies have taken a variable-centered approach to examine Chinese American adolescents' adjustment, and have tended to focus on academic achievement (Hsin and Xie 2014; Qin 2008), the within-group variability of Chinese Americans and their overall adjustment, both academic and socioemotional, remain understudied. The current study filled in this gap by adopting a person-centered approach to investigate Chinese American adolescents' overall adjustment, taking into account multiple measures of adjustment (three academic domains and three socioemotional domains) as well as the transition of their overall adjustment pattern across early adolescence, middle adolescence, and emerging adulthood. As expected, we identified three overall patterns of adjustment at each wave (well-adjusted, paradox, and poorly-adjusted) and six transition patterns of adjustment (stable well-adjusted, stable paradox, stable poor, improved, declined, and changing without a clear trend). Moreover, we linked parenting profiles at early adolescence to concurrent adjustment profiles and to the stability and change of adjustment profiles across time.

Individual Difference in Adjustment Profiles

The present study is one of the first to identify subgroups of adolescents with distinct overall adjustment profiles in a Chinese American population. We highlight the importance of taking a holistic approach to examining adolescent adjustment. Previous studies of Chinese American adolescents' adjustment focused on their strong academic performance and applied the "model minority" stereotype to this group (Zhou and Kim 2006), thus undermining a comprehensive understanding of their adjustment. While there is indeed considerable consistency in adjustment across domains, such that over half of the adolescents in our sample were well-adjusted in academic and socioemotional domains (i.e., were classified into the well-adjusted group), it is still important to realize that individuals who are well adjusted in one domain do not necessarily adjust well in other domains (Qin 2008). Slightly over one fifth of the participants in the present study were classified into the

"paradox" group: their high levels of academic achievement were accompanied by relatively high levels of socioemotional distress. In fact, although adolescents in the paradox group reported higher academic achievement compared to those in the poorly-adjusted group, they also reported higher levels of socioemotional distress compared to those in the poorly-adjusted group during both early and middle adolescence. Had we focused only on academic adjustment, the psychological distress of the "paradox" group would have been masked by their relatively high academic adjustment. The paradox group and the poorly-adjusted group both counter the "model minority" stereotype commonly applied to Chinese Americans. The current study findings highlight the psychological needs of these two groups and support previous research calling for interventions aimed at reducing psychological distress in this population (Qin 2008).

The current study also demonstrated the stability and change in adolescents' overall adjustment relative to that of their peers—that is, the rank-order stability and change (see Specht et al. 2011) on adjustment. Many previous studies, taking a variable-centered approach, have focused on stability and change in specific adjustment domains (e.g., academic or socioemotional domain) (Leadbeater et al. 2012; Suárez-Orozco et al. 2010). Although these studies are informative, it is also important to take a person-centered approach to examine individual differences in transition patterns of overall adjustment. Consistent with previous work (Damon et al. 2006; Sroufe and Rutter 1984), we found substantial stability in overall adjustment patterns, with slightly more than half of adolescents (55 %) staying in the same adjustment profile across early adolescence, middle adolescence, and emerging adulthood.

Meanwhile, we also demonstrated considerable change in adjustment profiles over time, as some adolescents' overall adjustment improved (22 %), some declined (18 %), and some changed without a clear trend (5 %). The stability and changes of overall adjustment patterns demonstrated in the current study are in line with findings from previous studies showing stability and change in developmental outcomes, such as personality and identity, across developmental periods (Meeus 2011; Specht et al. 2011). Our results are also consistent with previous studies on multifinality demonstrating that children who start with similar developmental patterns may end up with different developmental outcomes at later developmental stages (Cicchetti and Rogosch 1996; Nolen-Hoeksema and Watkins 2011). For example, in the current study, some generally well-adjusted adolescents experienced declines in socioemotional and/or academic domains of adjustment either from early to middle adolescence or from middle adolescence to emerging adulthood, ending up in either the "paradox" or "poorly-adjusted" group at emerging adulthood. It is therefore important to identify factors that set adolescents on different developmental paths of adjustment to inform intervention efforts aimed at promoting positive development.

Association Between Parenting Profiles and Adolescent Adjustment Profiles

The current study examined parenting as one of the contextual factors that may relate to adolescents' developmental patterns of adjustment. Parenting profiles at early adolescence were related to both concurrent adjustment profiles and transitions through developmental profiles from early adolescence to emerging adulthood. First, adolescents with supportive

parents (vs. other types of parents) were more likely to be classified into the "well-adjusted" group at early adolescence and the "stable well-adjusted" group across adolescence and emerging adulthood, as opposed to other developmental patterns. Many previous studies have demonstrated a positive association between supportive parenting and the adjustment of adolescents in specific domains, such as academic and/or socioemotional outcomes (Eisenberg et al. 2005; Kim et al. 2013b). Previous studies have also found that supportive parenting is associated with fewer declines in academic achievement and less increase in socioemotional distress across adolescence (Luyckx et al. 2011). In line with these studies, our results further underscore the advantage of supportive parenting by demonstrating its association with the best overall adjustment.

Second, the present study found that adolescents with tiger parents (vs. supportive parents) were more likely to be classified into the "paradox" group (vs. "well-adjusted" or "poorly-adjusted" group) at early adolescence and the stable "paradox" (vs. stable "well-adjusted") group across time. A recent study has associated tiger parenting with relatively high academic adjustment and low socioemotional adjustment separately (Kim et al. 2013b). The current study further demonstrated that adolescents with tiger parents do indeed tend to exhibit a paradoxical adjustment pattern, one that combines high academic achievement and low socioemotional adjustment relative to peers. Similar to tiger parenting, maternal harsh parenting (vs. maternal supportive parenting) was also associated with a higher likelihood of adolescents being a member of the "paradox" group (vs. "well-adjusted" or "poorly-adjusted" group) and the stable "paradox" (vs. stable "well-adjusted") group. Compared to supportive parenting, both tiger and harsh parenting were also more likely to produce poorly-adjusted, rather than well-adjusted, adolescents. The overall adjustment patterns of adolescents of tiger and harsh mothers were similar. These results suggest that positive parenting practices (e.g., parental warmth and democratic parenting), which are high in tiger parenting and low in harsh parenting, may not counterbalance the effect on adolescent adjustment of negative parenting practices (e.g., parental hostility and punitive parenting), which are high in both tiger and harsh parenting. Taken together, these results indicate that the optimal parenting approach within the Chinese American culture is supportive parenting, not tiger parenting, even though tiger parenting has recently been found to be more beneficial in Asian culture than in American culture (Chua et al. 2014; Fu and Markus 2014).

The seemly surprising result that tiger parents (vs. supportive parents) were more likely to have adolescents classified in the "improved" group (vs. "stable well-adjusted" or "declined" group) does not indicate that tiger parenting is more beneficial than supportive parenting. Those who were classified in the well-adjusted group at early adolescence were already in the best-adjusted category; thus, any improvement in adjustment would not place them into a different category. They either stayed in the well-adjusted group or declined to the paradox or poorly-adjusted group. As a result, adolescents with supportive parents (vs. tiger parents) were more likely to be in the stable well-adjusted or declined group as opposed to the improved group because most adolescents with supportive parents started out with the highest rank-order in adjustment. To further elucidate the association between parenting and improvement or decline in overall adjustment patterns, future studies should take into

account the initial adjustment status. The current study was unable to do so, due to the small sample size of the improved or declined groups for each initial adjustment profile.

Limitations and Future Directions

The current study has several limitations. First, there were a small number of participants in some of our study's subgroups. Future studies with larger and more representative samples may better capture the proportion of the Chinese American population exhibiting each developmental pattern, and may thus be able to provide a more complete understanding of the association between parenting and developmental patterns of overall adjustment. Second, most of the parents in our study hailed from Hong Kong. However, in other parts of the United States, there are Chinese Americans who immigrated from Taiwan or other parts of China. Different parts of China have distinct subcultures, where parenting beliefs and practices may not necessarily be the same (Berndt et al. 1993; Lai et al. 2000). Hence, future studies should include Chinese American samples from different cultural backgrounds to examine whether and how subculture of origin may contribute to within-group variations among Chinese Americans in terms of parenting and the effects of parenting on adolescent adjustment. Third, the current study examined maternal and paternal parenting separately, which provided us with a more nuanced picture of the separate roles mothers and fathers play in adolescent adjustment. However, extant studies on co-parenting suggest that whether parents cooperate or conflict with each other can also have important implications for adolescent adjustment (Feinberg et al. 2007; Teubert and Pinquart 2010). Therefore, future studies could examine how different combinations of maternal and paternal parenting profiles (e.g., having one tiger parent and one supportive parent vs. having two tiger parents) relate to adolescent adjustment.

Fourth, although parenting profiles were linked to overall adjustment profiles in the current study, the mechanisms behind such associations are still unclear. Future studies should investigate other potential factors that may account for the relationship between parenting and adolescent adjustment, such as adolescents' sense of self-worth or perfectionism (Garber et al. 1997; Soenens et al. 2005). For example, Soenens et al. (2005) found that adolescents' maladaptive perfectionism mediated the association between parental psychological control and adolescent adjustment. Finally, the majority of "poorly-adjusted" adolescents experienced some improvement in adjustment across adolescence and emerging adulthood. To inform interventions, future studies should further investigate factors that may contribute to such improvements, which were not explained by parenting profiles at early adolescence in the current study. One possibility is that parenting profiles may be also changing across time, as parents adapt to their adolescent's process of adjustment— and indeed, previous studies have demonstrated mutual influence between parenting and adolescent adjustment (Abar et al. 2014; Elkins et al. 2014).

Conclusion

The present study has significant theoretical and practical implications. We highlight the benefit of taking a person-centered approach to look at general adjustment patterns, taking into account multiple adjustment outcomes simultaneously. We also emphasize individual

differences in Chinese American adolescents' adjustment by identifying three profiles at each wave ("well-adjusted", "paradox", and "poorly-adjusted") and six developmental patterns across time (stable "well-adjusted", stable "paradox", stable "poorly-adjusted", "improved", "declined", and "changing without a clear trend"). One important contextual factor that contributes to these individual differences in adjustment is parenting style at early adolescence, which was associated with both concurrent overall adjustment and transition in adjustment over time. We recommend supportive parenting as the most beneficial parenting profile, as it was related to the best overall adjustment for adolescents over time. Identifying subgroups of adolescents with different overall adjustment profiles helps practitioners target those who are most in need of intervention. One way to improve adolescents' overall adjustment may be to promote positive parenting.

Acknowledgments

Biography

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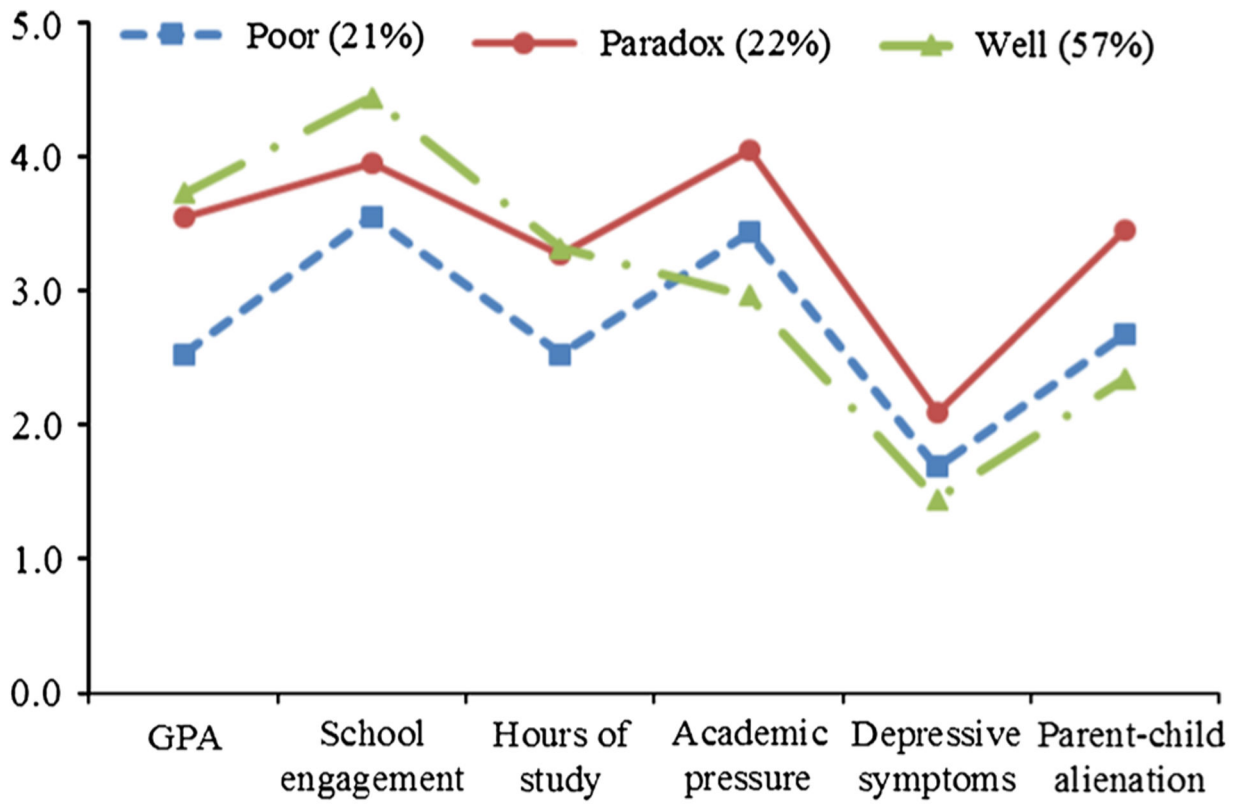
Fig. 1.
Estimates of adolescent adjustment profiles at Wave 1 from latent transition analysis. The scale range was 0–4 for GPA, 1–5 for school engagement, 1–8 for hours of study, 1–5 for academic pressure, 1–4 for depressive symptoms, and 1–5 for parent–child alienation

Table 1

ptive statistics and correlations of the studied variables

M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
3.45	.59																								
4.16	.63	.51***																							
3.15	1.61	.22***	.27***																						
3.31	.99	−.15**	−.11*	.04																					
1.64	.42	−.16**	−.26***	−.09	.32***																				
2.66	.74	−.09	−.28***	−.05	.45***	.58***																			
3.15	.60	.61***	.32***	.11*	−.07	−.14**	−.07																		
3.89	.73	.40***	.43***	.13*	−.12*	−.20***	−.14*	.49***																	
3.81	2.00	.32***	.22***	.29***	−.13*	−.09	−.04	.29***	.38***																
3.70	.88	.01	.04	.12*	.40***	.21***	.21***	−.03	−.02	.06															
1.71	.46	−.09	−.18**	.04	.11*	.35***	.29***	−.14*	−.26***	.01	.28***														
2.80	.73	.01	−.13*	.06	.23***	.26***	.34***	−.09	−.22***	−.03	.42***	.51***													
2.67	.63	.31***	.21***	.11	.02	−.11	−.04	.44***	.25***	.18**	−.02	−.20**	−.12*												
3.94	.63	.27***	.31***	.11	.05	−.02	−.04	.34***	.39***	.28***	.08	−.18**	−.12*	.53***											

M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
4.32	2.04	.21***	.17**	.25***	-.02	-.03	-.02	.20**	.23***	.34***	.10	.01	.05	.19**	.40***	.04	.36***	.42***	-.27***	-.45***	-.31***	-.18***	-.30***	-.62***	-.22***
3.45	.88	-.07	-.06	.03	.29***	.29***	.20***	-.11	-.04	.01	.50***	.25***	.27***	-.25***	-.15**	-.06	.43***	-.12*	.05	-.56***	-.14**	-.06	.05	-.63***	
1.63	.45	-.08	-.07	.10	.29***	.27***	.17**	-.10	-.12*	-.03	.18**	.50***	.24***	-.24***	-.27***	-.03	-.20***	.04	.16**	-.26***	-.36***	-.17**	.32***		
2.65	.73	-.15**	-.15**	.07	.02	.29***	.33***	-.18**	-.10	-.04	.28***	.37***	.51***	-.23***	-.35***	.05	-.06	.11	.18**	.50***	.53***	.24***			
.45	.50	.18***	.28***	.11*	.17**	-.34***	-.49***	.18***	.20***	.11*	-.16**	-.19***	-.21***	.06	.14*	-.05	.23***	-.05	-.12*	-.30***	-.09				
.19	.40	-.04	-.11*	-.06	-.27***	.10*	.10*	-.08	-.14**	-.04	-.02	.10	.06	-.08	-.08	-.03	.08	.02	.01	-.32***					
.28	.45	-.16**	-.14**	.00	-.01	.17	.25***	-.11*	-.10	-.05	.22***	.07	.15**	.00	-.02	.03	-.07	.05	.14*						
.08	.27	.00	-.13**	-.12*	.22***	.21***	.34***	-.05	-.01	-.07	-.04	.10	.04	.00	-.12*	.10	.10								
.63	.48	.14	.30***	.16**	.16**	-.27***	-.39***	.10*	.15**	.10	-.05	-.11	-.15**	.04	.11	-.09									
.18	.38	-.08	-.21***	-.11*	-.03	.10*	.08	-.08	-.14**	-.05	-.09	.07	.06	-.06	-.13*	-.04									
.19	.39	-.16**	-.16**	-.10*	.26***	.24***	.41***	-.06	-.05	-.08	.15**	.06	.13	.01	.00		.10								

...nting measures are dichotomous variables created based on adolescent reports at Wave 1, and point-biserial correlations compared differences between a given parenting profile and the rest of the

F Father, M mother

***
p<.001

Table 2

Means and standard deviations of adolescent adjustment indicators by adjustment profiles within waves

	N	Academic Adjustment						Socioemotional Adjustment					
		GPA		School engagement		Hours of study		Academic pressure		Depressive symptoms		Parent-child alienation	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Wave 1													
Poor	91	2.53	$.50^{a, b}$	3.56	$.55^{a, b}$	2.53	$1.10^{a, b}$	3.44	$.80^{a, b}$	1.69	$.41^{a, b}$	2.68	$.57^{a, b}$
Paradox	99	3.55	$.34^{c}$	3.96	$.59^{c}$	3.28	1.70	4.05	$.69^{c}$	2.09	$.41^{c}$	3.46	$.53^{c}$
Well	254	3.73	.30	4.45	.47	3.32	1.68	2.97	.99	1.45	.26	2.35	.61
Wave 2													
Poor	109	2.45	$.57^{a, b}$	3.22	$.65^{a, b}$	2.46	$1.37^{a, b}$	3.56	$.76^{b}$	1.67	$.37^{a, b}$	2.68	$.61^{b}$
Paradox	109	3.17	$.46^{c}$	3.70	$.74^{c}$	3.91	2.17^{c}	4.25	$.62^{c}$	2.23	$.43^{c}$	3.53	$.60^{c}$
Well	226	3.46	.34	4.24	.51	4.27	1.91	3.48	.92	1.48	.29	2.50	.58
Wave 3													
Poor[d]	28	.90	$.37^{a, b}$	2.74	$.94^{a, b}$	1.57	$.79^{a, b}$	4.76	$.50^{a, b}$	1.95	$.61^{a}$	3.02	$.84^{a}$
Paradox	222	2.39	$.48^{c}$	3.62	$.50^{c}$	3.82	1.85^{c}	3.80	$.65^{c}$	1.78	.44	3.00	.66
Well	194	3.02	.46	4.31	.46	4.95	2.03	3.04	.89	1.43	.33	2.24	.56

We conducted MANOVA to examine the mean differences in each adjustment indicator among the three profiles. Significant overall differences were observed for each indicator, $F(2, 296 \text{ to } 441) = 8.78$ to 378.43, $p < .001$. Post hoc tests for mean differences between each of the two profiles are denoted by superscripts

[a] A significant mean difference was observed between the poorly-adjusted and the well-adjusted groups

[b] A significant mean difference was observed between the poorly-adjusted and the paradox groups

[c] A significant mean difference was observed between the paradox and the well-adjusted groups

[d] Students who were not in school at Wave 3 had significantly higher depressive symptoms ($M = 1.80$, $SD = .56$) and parent–child alienation ($M = 2.92$, $SD = .90$) than the well-adjusted group

Table 3

Stability and change in adolescent adjustment profiles across Waves 1, 2, and 3

Wave 1 profiles	Wave 2 profiles	Wave 3 profiles		
		Poor	Paradox	Well
Poor	Poor	10 (2 %)[c]	74 (17 %)[d]	4 (1 %)[d]
	Paradox	–	3 (1 %)[d]	–
	Well	–	–	–
Paradox	Poor	–	3 (1 %)[f]	1 (0 %)[f]
	Paradox	7 (2 %)[e]	67 (15 %)[b]	6 (1 %)[d]
	Well	–	3 (1 %)[f]	12 (3 %)[d]
Well	Poor	5 (1 %)[e]	12 (3 %)[f]	–
	Paradox	2 (0 %)[e]	23 (5 %)[e]	1 (0 %)[f]
	Well	4 (1 %)[e]	37 (8 %)[e]	170 (38 %)[a]

Empty cells indicate no participant experienced such a transition. $N = 444$

[a] Stable well-adjusted group

[b] Stable paradox group

[c] Stable poorly-adjusted group

[d] Improved group

[e] Declined group

[f] Changing without a clear trend group

Table 4

Unstandardized coefficients and odds ratios from multinomial logistic regression of parenting profiles at Wave 1 and adolescent adjustment profiles at Wave 1

Parenting profiles	Poor versus Well (R)		Paradox versus Well (R)		Poor versus Paradox (R)	
	B	OR	B	OR	B	OR
Father-adolescent dyads						
Easygoing versus supportive	.68	1.97 *	.76	2.14 *	−.09	.92
Tiger versus supportive	1.03	2.81 **	2.51	12.28 ***	−1.48	23 ***
Tiger versus easygoing	.36	1.43	1.75	5.76 ***	−1.39	25 **
Mother-adolescent dyads						
Easygoing versus supportive	.75	2.11 *	1.65	5.21 ***	−.91	.40 *
Tiger versus supportive	1.20	3.33 ***	2.28	9.82 ***	−1.08	.34 **
Harsh versus supportive	1.50	4.49 **	3.23	25.34 ***	−1.73	.18 **
Tiger versus easygoing	.46	1.58	.63	1.88	−.17	.84
Harsh versus easygoing	.75	2.13	1.58	4.85 **	−.83	.44
Harsh versus tiger	.29	1.34	.95	2.57 *	−.65	.52

In order to control for Type I error as a result of multiple hypothesis testing, we only reported significant findings at the *p* < .01 level in the results. There were three paternal parenting profiles (i.e., supportive, easygoing, tiger) and four maternal parenting profiles (i.e., supportive, easygoing, tiger, harsh). *N* = 444

R reference group, *OR* odds ratio

*
p < .05;

**
p < .01;

***
p < .001

Table 5

Unstandardized coefficients and odds ratios from multinomial logistic regression of parenting profiles at Wave 1 and adolescent adjustment transitions across Waves 1, 2, and 3

Parenting profiles	Changing versus Stable well (R)		Improved versus Stable well (R)		Declined versus Stable well (R)		Stable poor versus Stable well (R)		Stable paradox versus Stable well (R)	
	B	OR	B	OR	B	OR	B	OR	B	OR
Father-adolescent dyads										
Easygoing versus Supportive	-.50	.61	.54	1.71	.09	1.10	.96	2.61	.82	2.28*
Tiger versus Supportive	-.68	.51	1.31	3.72***	.24	1.27	1.07	2.92	2.16	8.70***
Tiger versus Easygoing	-.19	.82	.78	2.18	.14	1.15	.11	1.12	1.34	3.81**
Mother-adolescent dyads										
Easygoing versus Supportive	1.42	4.14*	.91	2.47*	.72	2.05	2.06	7.86*	2.15	8.59***
Tiger versus Supportive	1.34	3.83*	1.35	3.87***	.13	1.14	.79	2.19	2.45	11.57***
Harsh versus Supportive	1.76	5.79*	1.49	4.43*	.54	1.71	1.81	6.10	3.32	27.69***
Tiger versus Easygoing	-.08	.93	.45	1.56	-.59	.55	-1.28	.28	.30	1.35
Harsh versus Easygoing	.34	1.40	.58	1.79	-.18	.84	-.26	.78	1.17	3.22
Harsh versus Tiger	.41	1.51	.13	1.14	.41	1.51	1.02	2.77	.87	2.39

Parenting profiles	Changing versus Stable paradox (R)		Improved versus Stable paradox (R)		Declined versus Stable paradox (R)		Stable poor versus Stable paradox (R)	
	B	OR	B	OR	B	OR	B	OR
Father-adolescent dyads								
Easygoing versus supportive	-1.33	.27	-.29	.75	-.73	.48	.13	1.14
Tiger versus supportive	-2.84	.06*	-.85	.43*	-1.92	.15***	-1.09	.34
Tiger versus easygoing	-1.53	.22	-.56	.57	-1.20	.30	-1.23	.29
Mother-adolescent dyads								
Easygoing versus supportive	-.73	.48	-1.25	.29*	-1.43	.24**	-.09	.91
Tiger versus supportive	-1.11	.33	-1.10	.33*	-2.32	.10***	-1.66	.19
Harsh versus supportive	-1.57	.21	-1.83	.16***	-2.78	.06***	-1.51	.22
Tiger versus easygoing	-.37	.69	.15	1.16	-.89	.41	-1.57	.21
Harsh versus easygoing	-.83	.43	-.59	.56	-1.35	.26*	-1.42	.24

Parenting profiles	Changing versus Stable paradox (R)		Improved versus Stable paradox (R)		Declined versus Stable paradox (R)		Stable poor versus Stable paradox (R)	
	B	OR	B	OR	B	OR	B	OR
Harsh versus tiger	−.46	.63	−.74	.48	−.46	.63	.15	1.16

Parenting profiles	Changing versus Stable poor (R)		Improved versus Stable poor (R)		Declined versus Stable poor (R)		Changing versus Declined (R)		Improved versus Declined (R)		Changing versus Improved (R)	
	B	OR	B	OR	B	OR	B	OR	B	OR	B	OR
Father-adolescent dyads												
Easygoing versus supportive	−1.46	.23	−.42	.66	−.87	.42	−.59	.55	.45	1.56	−1.04	.35
Tiger versus supportive	−1.75	.17	.24	1.27	−.83	.44	−.92	.40	1.08	2.93*	−1.99	.14
Tiger versus easygoing	−.30	.74	.67	1.95	.03	1.03	−.33	.72	.64	1.89	−.97	.38
Mother-adolescent dyads												
Easygoing versus supportive	−.64	.53	−1.16	.32	−1.34	.26	.70	2.02	.19	1.21	.52	1.67
Tiger versus supportive	.56	1.75	.57	1.76	−.66	.52	1.22	3.37	1.23	3.41**	−.01	.99
Harsh versus supportive	−.05	.95	−.32	.73	−1.27	.28	1.22	3.38	.95	2.59	.27	1.31
Tiger versus easygoing	1.20	3.32	1.72	5.61	.69	1.98	.51	1.67	1.04	2.83*	−.53	.59
Harsh versus easygoing	.59	1.80	.84	2.31	.07	1.08	.52	1.67	.76	2.15	−.25	.78
Harsh versus tiger	−.61	.54	−.89	.41	−.61	.54	.00	1.00	−.28	.76	.28	1.32

In order to control for Type I error as a result of multiple hypothesis testing, we only reported significant findings at the $p < .01$ level in the results. There were three paternal parenting profiles (i.e., supportive, easygoing, tiger) and four maternal parenting profiles (i.e., supportive, easygoing, tiger, harsh). $N = 444$

R reference group, *OR* odds ratio

*
$p < .05$;

**
$p < .01$;

***
$p < .001$