

This is the peer reviewed version of the following article: Leung, J. T. Y., & Shek, D. T. L. (2024). Overparenting and psychological wellbeing among Chinese adolescents: Findings based on latent growth modeling. *Journal of Research on Adolescence*, 34, 871–883, which has been published in final form at <https://doi.org/10.1111/jora.12960>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions. This article may not be enhanced, enriched or otherwise transformed into a derivative work, without express permission from Wiley or by statutory rights under applicable legislation. Copyright notices must not be removed, obscured or modified. The article must be linked to Wiley's version of record on Wiley Online Library and any embedding, framing or otherwise making available the article or pages thereof by third parties from platforms, services and websites other than Wiley Online Library must be prohibited.

Overparenting and Psychological Well-being among Chinese Adolescents: A Latent Growth Model Analysis

Janet T.Y. Leung and Daniel T.L. Shek

Dr. Janet T.Y. Leung is Associate Professor at Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong.

Prof. Daniel T.L. Shek is Chair Professor of Applied Social Sciences and Li and Fung Endowed Professor in Service Leadership Education, The Hong Kong Polytechnic University.

Address all correspondence to Janet T.Y. Leung, PhD, Associate Professor, Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hung Hom, Hong Kong. E-mail: janet.leung@polyu.edu.hk

ACKNOWLEDGEMENTS: This research was financially supported by the General Research Fund, Research Grants Council (Project Code: PolyU 15602417).

Abstract

Background: Although overparenting is a growing phenomenon across the globe, there is a severe lack of longitudinal studies examining the trajectory of overparenting and its effects on early adolescent development, particularly in non-Western contexts. **Methods:** The study collected three waves of longitudinal data collected from 1,399 early Chinese adolescents in Hong Kong with an interval of one year to examine the stability and change of perceived paternal and maternal overparenting and their effects on adolescent psychological well-being. **Results:** Perceived paternal and maternal overparenting declined over time. Besides, initial levels of maternal overparenting and rates of change (slopes) of paternal and maternal overparenting positively predicted adolescent anxiety and depressive symptoms. Initial levels of adolescent anxiety also negatively predicted declining trajectories of paternal and maternal overparenting. We also identified gender differences in perceived trajectory of paternal overparenting, and the effects of initial level and rate of change of maternal overparenting on adolescent anxiety and depressive symptoms. **Conclusion:** The present study suggests that parental overparenting and adolescent psychological symptoms influence each other over time with gender differences involved in the relationships. The findings facilitate theoretical development of contemporary Chinese socialization models and provide useful pointers for future studies of the related issues in non-Western contexts. Practical significance of the findings is also discussed.

Keywords: overparenting, adolescent anxiety and depression, early adolescence, latent growth curve, longitudinal studies, Chinese

Introduction

Overparenting refers to a developmentally inappropriate parenting style in which parents actively intrude into the lives and decision-making process of their children, provide plentiful assistance to them and solve problems for their children without allowing them to try and learn by their own effort (Leung, 2020; Segrin et al., 2012). Distinct from Baumrind's (1991) conventional typologies of parenting styles (i.e., authoritarian, authoritative, permissive, and neglectful), overparenting is characterized by a disproportionate level of parental control, involvement and assistance (Hayes & Turner, 2021; Locke, Campbell, & Kavanagh, 2012; Segrin et al., 2012). Such behavior impedes the children's development of autonomy and self-reliance (Rousseau & Scharf, 2015). Notably, overparenting is a phenomenon observed across various ages, locations, and cultures (Gibbs, 2009; Leung, 2021).

Although the phenomenon has caught the attention of mass media and the public (Gibbs, 2009), scientific studies on overparenting is still at its infancy. There are several research gaps in the existing literature on overparenting. First, majority of studies focus on emerging adults (Cui et al., 2022; Segrin et al., 2012). Obviously, this specific parenting style may also emerge at earlier stages of the family life cycle when parents are anxious about the future success and development of their children (Grotevant & Cooper, 1986) as well as when adolescents demand for more space and autonomy to search for their self-identity (Baumrind, 2005; Steinberg & Silk, 2002). Unfortunately, empirical studies of overparenting in early adolescence are sparse.

Second, many overparenting studies have been conducted in Western countries (Cui et al., 2022) with few Chinese studies. As Chinese culture emphasizes familism, collectivism and interdependent relationships whereas Western culture focuses more on individualism, autonomy and independence (Leung & Shek, 2011, 2016; Shek, 2006), manifestations of overparenting

may differ across cultures. In a qualitative study on the perceptions of overparenting among Chinese parents and adolescents, eight themes of Chinese overparenting were identified, namely parental close monitoring, parental intrusion into children's lives and future direction, overemphasis on children's academic results, repetitive comparison between their children's and other's achievements, overscheduling of tutorials and extracurricular classes, anticipatory problem-solving, excessive care, and excessive affective involvement. In fact, overemphasis on children's academic results, repetitive comparison between their children's and other's achievements, and overscheduling of tutorials and extracurricular classes were regarded as unique features of Chinese overparenting (Leung et al., 2018). Moreover, Chinese overparenting can be conceptualized in terms of two distinctive dimensions based on Baumrind's (1991) typology of parenting: parental over-demandingness (parental close monitoring, parental intrusion into children's lives and future direction, overemphasis on children's academic results, repetitive comparison between their children's and other's achievements, overscheduling of tutorials and extracurricular classes) and parental over-responsiveness (anticipatory problem-solving, excessive care, and excessive affective involvement) (Leung & Shek, 2019). As Chinese people constitutes roughly one-fifth of the world population, there is a need to conduct more research on overparenting in Chinese communities.

Third, most studies in the field adopted a cross-sectional research design in examining the linkages between overparenting and adolescent well-being (e.g., McGinley & Davis, 2020; Perez et al., 2020). In a systematic review of 74 peer-reviewed journal papers in this area, Cui et al. (2022) showed that 95.0% ($n = 70$) of the studies adopted a cross-sectional research design. Obviously, this methodological design suffers from many limitations (Cole & Maxwell, 2003), particularly its inability to assess stability and change of overparenting and its effects on

adolescent development across time. Actually, parenting is perceived differently by adolescents across time (Rogers et al., 2020; Wang et al., 2011) when they become more mature and independent (Erikson, 1968). As such, using longitudinal studies to examine stability and change of overparenting perceived by adolescents, and their effects on their well-being is methodologically superior.

Finally, most studies did not differentiate between paternal and maternal overparenting in examining the associations of overparenting and adolescent development (e.g., Jiao & Segrin, 2020). As fathers and mothers perform different roles in the families and have different relationships with the children (Van Lissa et al., 2019), perceived overparenting practice by adolescents may have different associations with adolescent development. Among the few studies in the field, Love et al. (2020) found that paternal helicopter parenting was associated with higher school burnout of college students when compared to maternal helicopter parenting. Leung (2020) also reported that while paternal overparenting was positively related to life satisfaction of early adolescents, maternal overparenting was positively linked to adolescent anxiety and depression. However, as the related studies employed a cross-sectional design, the impacts of trajectories of paternal and maternal overparenting on adolescent psychological well-being remain inconclusive.

Overparenting during Early Adolescence

Adolescents strive for more autonomy and independence in order to build up their self-identity and connections with the outside world (Erikson, 1968). They also expect their parents to modify their parenting practice and relax parent-child relationship boundaries (Longmore et al., 2013) so that they can have more space and freedom to grow and explore (Bhargava & Witherspoon, 2015; Hill & Chao, 2009; Wang et al., 2011). Hence, adolescents are highly

sensitive to parental intrusions and excessive involvement upon their autonomy, which may lead to parent-child conflict and adjustment problems (Rogers et al., 2020). Unfortunately, as parents are anxious that changes in parenting patterns may spoil their children's future (Rapee, 2009), particularly during this "storm and stress" stage (Arnett, 1999; Elliott, 2009), resistance to modify their parenting practice during adolescence may irritate their adolescent children. In an 8-wave longitudinal study of 500 adolescents in the U.S, adolescents perceived an increase of parental psychological control over time (Rogers et al., 2020). Regarding overparenting, in a rare three-wave study of 453 emerging adults in the U.S., helicopter parenting decreased over time (Nelson et al., 2021). However, the study was conducted in emerging adults in the West and there is no known longitudinal study in young adolescents in Chinese communities.

Effects of Trajectories of Overparenting on Adolescent Well-being

While many cross-sectional studies showed that overparenting levels were positively related to anxiety and depression in early adolescents (Leung 2020) and emergent adults (Howard et al., 2021; Moilanen & Manuel, 2019; Reed et al., 2016), little is known about the effects of paternal and maternal overparenting trajectories (i.e., changes in overparenting and not just levels) on adolescent well-being. There are two alternative but non-mutually exclusive accounts for the effect of trajectory of overparenting on adolescent well-being. On one hand, according to self-determination theory, interrelatedness, autonomy and competencies are central pillars for human development (Ryan & Deci, 2000). Overparenting restricts adolescent autonomy, which may heighten their anxiety and depressive symptoms (Segrin et al., 2022). When adolescents experience intensified overparenting in the early stage of adolescence, their anxiety and depressive symptoms may accelerate since adolescents exhibit emotional maladjustment due to parental intrusions (Soenens & Vansteenkiste, 2010). Moreover, when

adolescents experience accelerated rate of overparenting, their anxiety and depressive symptoms may also accelerate because they may perceive that their autonomy is further exploited. In addition, overparenting would lead to parent-child conflict, which may further deepen adolescent anxiety and depression (Leung, 2021).

On the other hand, according to the family systems theory (Minuchin, 1974), overparenting may create parent-child enmeshment (Hesse et al., 2018; Segrin et al., 2015), resulting in children's dependency on their parents to paving the ways for them and assisting them to solve their daily problems. This is particularly relevant to Chinese adolescents as they are socialized to build up interdependent relationship with and filial piety to their parents (Leung et al., 2021). Hence, adolescents may feel insecure and incapable to face life challenges when parents reduce their overparenting practice, which may lead to greater anxiety and depression.

Furthermore, it is insightful to examine whether child factors predict changes of overparenting. When adolescents exhibit mental health symptoms, parents who are over-sensitive to their children's affections may easily get enmeshed with the children (Hesse et al., 2018; Segrin et al., 2015), and are more prepared to assist their children from anticipated risks and difficulties. Hence, child anxiety and depression may also lead to accelerated paternal and maternal overparenting as well. Besides, when adolescents suffer from anxiety and depression, they may be oversensitive and magnify the changes of parental behavior. Surprisingly, Nelson et al. (2021) found that while video game addiction symptoms of male emerging adults positively predicted initial levels of perceived paternal helicopter parenting, other child variables (demographic characteristics and mental health attributes) did not predict the intercepts and slopes of perceived paternal and maternal helicopter parenting.

Does Adolescent Gender Matter?

According to the psychogenic needs model (Hosley & Montemayor, 1997), adolescent girls are more sensitive to parent-child relational qualities and are more attached to their parents, particularly mothers (Janssens et al., 2009; Shek, 2008). Evidence showed that helicopter parenting was negatively linked to girls' well-being but not to boys' (Kouros et al., 2017), and maternal overprotection was related to girls' somatic symptoms (Janssens et al., 2009). Besides, girls enter puberty earlier than boys and have greater parent-child conflict than do boys (Steinberg, 1987a). Hence, adolescent girls may have greater sensitivity to changes of parental overparenting behavior and showed greater emotional reactions towards the changes.

The Current Study

The current study aimed to examine the stability and change of paternal and maternal overparenting perceived by early Chinese adolescents in Hong Kong, and assess the associations of initial level and rate of change of perceived paternal and maternal overparenting with adolescent anxiety and depression respectively. There are several research questions:

Research Question 1: Do paternal and maternal overparenting perceived by early Chinese adolescents change over time?

Hypotheses 1: Both perceived paternal and maternal overparenting will decline over time (H1a and H1b).

Research Question 2: Is there any difference between adolescent boys and girls in their perceptions of paternal and maternal overparenting over time?

Hypotheses 2: Girls will perceive a faster decline of paternal and maternal overparenting over time than will boys (H2a and H2b).

Research Question 3: Do initial levels (intercepts) and rates of change (slopes) of paternal and maternal overparenting predict adolescent anxiety and depression, respectively?

Hypotheses 3: Initial levels of paternal and maternal overparenting would positively predict adolescent anxiety (H3a and H3b) and depression (H3c and H3d) over time. The rates of change of paternal and maternal overparenting would also positively predict adolescent anxiety (H3e and H3f) and depression (H3g and H3h), respectively.

Research Question 4: Do adolescent anxiety and depression at the initial level predict the rates of change (slopes) of paternal and maternal overparenting, respectively?

Hypotheses 4: Adolescent anxiety at the initial level would positively predict the rates of changes of paternal (H4a) and maternal (H4b) overparenting, respectively. Adolescent depression at the initial level would also positively predict the rates of changes of paternal (H4c) and maternal overparenting (H4d), respectively.

Research Question 5: Are there any differences between adolescent boys and girls in the relationship between initial points (intercepts) and rates of change (slopes) of paternal and maternal overparenting and adolescent anxiety and depression?

Hypotheses 5: The associations of initial points of paternal and maternal overparenting with adolescent anxiety (H5a and H5b) and depression (H5c and H5d) would be stronger for girls than boys. The associations of rates of change of paternal and maternal overparenting with adolescent anxiety

(H5e and H5f) and depression (H5g and H5h) would also be stronger for girls than boys.

As studies on trajectories of overparenting on adolescent development were severely lacking, the study was considered as an exploratory one.

Methods

Participants

We conducted a longitudinal study with the collection of three waves of data from early adolescents. In this longitudinal study, we recruited the respondents from 14 secondary schools in Hong Kong based on multi-stage stratified cluster sampling strategy, with geographical location and school banding as the stratifying factors. At Time 1, 1,399 students studying Form One (Grade 7) participated in the study. They filled out the same questionnaire at Time 2 (T2) and Time 3 (T3), with an interval of one year. After matching, 1,057 respondents completed the questionnaire at all three time points. The attrition rate was 24.4%.

At T1, 738 (52.8%) respondents were girls, while 657 (47.0%) were boys (4 did not indicate their gender). The mean age of the respondents was 12.66 ($SD = .80$). There were 1,034 (73.9%) respondents coming from intact families, with 315 (21.6%) respondents coming from non-intact families (remarried: $n = 114$, 8.1%; divorced: $n = 104$, 7.4%; separated: $n = 55$, 3.8%; widowed, $n = 31$, 2.2%; lived with relatives, $n = 19$, 1.4%) (43 respondents did not indicate their family type). There were 283 (20.2%) respondents receiving Comprehensive Social Security Assistance (CSSA), which is a means-tested cash subsidy provided by the Government to those families who faced economic hardship.

Procedure

We sent invitation letters to selected secondary schools based on multi-stage stratified cluster sampling strategy and invited them to participate in the study. Finally, 14 secondary schools in Hong Kong joined the study. We then sent invitation letters to students' parents via the participating schools, introducing the objectives and data collection procedures to parents and students, and obtained their written informed consent. At Time 1 (T1), data collection was conducted during class lesson. The students were requested to fill out a questionnaire that contained different measures of perceived parental and maternal overparenting, their well-being attributes (indexed by anxiety and depression) and some demographic characteristics (e.g., gender, age family structure, status of CSSA recipients etc.). Those students who did not participate in the study were allowed to do their homework in class. The respondents filled out the questionnaires in around 20 minutes. The procedures were repeated during Times 2 (T2) and 3 (T3), at an interval of one year. We obtained the approval from the Human Subjects Ethics Sub-committee of the authors' university to conduct the study.

Measures

Overparenting

Chinese Paternal/Maternal Overparenting Scale (PCOS/MCOS). Based on the overparenting literature (e.g., Segrin et al., 2012) as well as the qualitative findings on how Chinese parents and adolescents perceived overparenting (Leung et al., 2018), the 42-item PCOS/MCOS were developed with eight dimensions. These include parental close monitoring, parental intrusion into children's lives and future direction, overemphasis on children's academic results, repetitive comparison between their children's and other's achievements, overscheduling of tutorials and extracurricular classes, anticipatory problem-solving, excessive care, and excessive affective involvement. Both PCOS and MCOS showed good psychometric properties in terms of internal

consistency, test-retest reliability, convergent validity and factorial validity in a Chinese sample of university students (Leung & Shek, 2018). Furthermore, a hierarchical two-factor structure of parental over-demandingness (parental close monitoring, parental intrusion into children's lives and future direction, overemphasis on children's academic results, repetitive comparison between their children's and other's achievements, and overscheduling of tutorials and extracurricular classes) and parental over-responsiveness (anticipatory problem-solving, excessive care, and excessive affective involvement) were confirmed in a Chinese adolescent sample using confirmatory factor analysis (Leung & Shek, 2019). The subscales were correlated with each other in both studies (Leung & Shek, 2018, 2019). Moreover, measurement invariance of PCOS and MCOS across adolescent gender were identified (Leung & Shek, 2019). A sample item reads "I live under father's/mother's schedule." Each item was rated on a 6-point Likert scale from "1 = strongly disagree" to "6 = strongly agree". Higher mean scores in PCOS and MCOS represent higher levels of perceived paternal and maternal overparenting, respectively. Both PCOS and MCOS showed good internal consistency in this study [PCOS: α (T1) = .95; α (T2) = .95; α (T3) = .97; MCOS: α (T1) = .95; α (T2) = .96; α (T3) = .97].

Adolescent Well-being

Chinese Hospital Anxiety and Depression Scale (HADS-C). Based on the original Hospital Anxiety and Depression Scale (HADS) developed by Zigmond and Snaith (1983), Leung et al. (1993) translated it into a Chinese version (CHADS-C). CHADS-C consists of two 7-item subscales: Anxiety Subscale (CHADS-A) and Depression Subscale (CHADS-D). Both subscales showed good psychometric properties in Chinese sample (Leung et al., 1999). A sample item of CHADS-A reads "I feel tense or 'wound up'", and that of CHADS-D reads "I have lost interest in my appearance". Each item is assessed on a 4-point Likert scale from "0 = not at all" to "3 =

most of the time”. Higher mean scores of CHADS-A and CHADS-D indicate higher levels of anxiety and depression respectively. Both CHADS-A and CHADS-D showed acceptable internal consistency in the study [CHADS-A: α (T1) = .75; α (T3) = .77; CHADS-D: α (T1) = .68; α (T3) = .72].

Data Analysis

We used latent growth curve (LGC) models (McNeish & Matta, 2018) to answer the research questions, which are commonly used to assess developmental changes across time (Curran et al., 2011; Tarka, 2017). Initially, we performed univariate LGC using AMOS 26.0 to examine the changes of paternal and maternal overparenting (Fig. 1). The goodness-of-fit indicators suggested by Hu and Bentler (1999) were adopted, i.e., NFI and CFI > 0.90, RMSEA < 0.06 for a good fit. The intercept and linear slope were estimated to examine the initial level and rate of change of paternal and maternal overparenting, respectively. We then conducted multi-group LGC analyses to assess whether the growth parameters varied as a function of adolescent gender (Byrne, 2016). To evaluate how the initial level (i.e., the intercept; $b_{0(paternal)}$ and $b_{0(maternal)}$) and the rates of change (i.e., linear slope; $b_{1(paternal)}$ and $b_{1(maternal)}$) of paternal and maternal overparenting were associated with adolescent anxiety at T3 after controlling for anxiety at T1, we performed multivariate LGC modeling (Fig. 2). Besides, the reciprocal effect of adolescent anxiety at T1 on rate of change (slope) of paternal and maternal overparenting were also assessed ($b_{2(paternal)}$ and $b_{2(maternal)}$) (Fig. 2). Lastly, we performed multi-group LGC analyses to determine whether the effects were different between adolescent boys and girls.

Results

Data Screening

We conducted Little's MCAR test (Little, 1988) to examine the patterns of missing data. Results showed that $\chi^2(176) = 330.02, p < .001$, indicating a rejection of null hypothesis that the missing values were missing completely at random (MCAR). Thus, we coded missing values for each variable (non-missing = 0, missing = 1) and performed logistic regressions to examine whether the missing values were predicted by adolescent gender, family intactness and status of Comprehensive Social Security Assistance [CSSA] recipients. It was found that family intactness contributed to the missing values of perceived maternal overparenting at T2, and paternal overparenting, maternal overparenting, adolescent anxiety and depression at T3, respectively. Status of CSSA recipients contributed to the missing values of perceived paternal overparenting at T1 and T3 and maternal overparenting at T2. Hence, adolescent gender, family intactness and status of CSSA recipients were regarded as the covariates of the study, and Full Information Maximum Likelihood (FIML) was employed to handle the missing data (Enders, 2010; Rogers et al., 2021).

Preliminary Analysis

Descriptive statistics of the studied variables is listed in Table 1. In general, correlational analyses showed that while adolescent anxiety was positively associated with maternal overparenting at different time points, it was only associated with paternal overparenting at Time 1, and depression at T3 was related to maternal overparenting at T3 only (Table 2). In addition, adolescent boys perceived higher levels of paternal and maternal overparenting and reported higher depression than did girls. Besides, adolescents growing up in intact families showed higher levels of paternal overparenting and lower depression than did those from non-intact families. Status of CSSA recipients did not relate to perceived overparenting and adolescent anxiety and depression.

Trajectories of Perceived Overparenting and Adolescent Well-being over Time

Univariate LGC was conducted to examine changes of perceived paternal and maternal overparenting over time. The models of trajectories of paternal and maternal overparenting fitted the data well (Paternal overparenting: CFI = 1.000, NFI = .997, RMSEA = .000; Maternal overparenting: CFI = 1.000, NFI = .996, RMSEA = .000). Results showed that perceived paternal and maternal overparenting decreased over time, with a mean slope of $-.052$ ($p < .001$) and $-.067$ ($p < .001$) respectively (Table 3). Multi-group LGC were also conducted to examine whether the changes of perceived paternal and maternal overparenting were different between adolescent boys and girls. We created two nested models for each construct by constraining the intercept (Model 1) and variance of the slope (Model 2) to be equal across adolescent gender respectively. Chi-square difference test showed that the constrained model of paternal overparenting was significantly different from that of the unconstrained model, with $\Delta\chi^2 = 20.618$ ($p < .001$). While mean slope of paternal overparenting among boys and girls were $-.043$ ($p < .001$) and $-.062$, respectively ($p < .001$), indicating that the decline was greater in adolescent girls than did adolescent boys (Table 3), the intercepts and rate of change (slope) of perceived maternal overparenting did not differ across adolescent gender.

Prediction of Trajectory of Overparenting on Trajectory of Adolescent Well-being

We conducted multivariate LGC analyses on top of individual LGC analyses. Regarding adolescent anxiety, multivariate LGC showed that the tested model fitted the data well, with CFI = .991, NFI = .988 and RMSEA = .040 (Table 4). The intercept of maternal overparenting as well as rates of change (slopes) of paternal overparenting and maternal overparenting positively predicted adolescent anxiety at T3, with $B = .08$, $SE = .23$, $\beta = .11$ ($p < .05$), $B = .34$, $SE = .16$, $\beta = .15$ ($p < .05$) and $B = .37$, $SE = .10$, $\beta = .21$ ($p < .01$), respectively (Table 4). Moreover,

adolescent anxiety at T1 negatively predicted the rates of change (slopes) of paternal and maternal overparenting, with $B = -.06$, $SE = .02$, $\beta = -.11$ ($p < .05$) and $B = -.06$, $SE = .02$, $\beta = -.13$ ($p < .01$) respectively (Table 4). For adolescent depression, the model also fitted the data well, with CFI = .990, NFI = .986, RMSEA = .039 (Table 4). While the initial point (intercept) of paternal overparenting positively predicted adolescent depression at T3 ($B = .05$, $SE = .02$, $\beta = .07$; $p < .05$) (Table 4), the rate of change (slope) of maternal overparenting positively predicted the rate of change (slope) of adolescent depression ($B = .20$, $SE = .09$, $\beta = .11$; $p < .05$) (Table 4). However, adolescent depression at T1 did not predict the rates of change (slopes) of paternal and maternal overparenting.

To examine gender differences in the predictions involved, results of multi-group analyses showed that the prediction of initial point (intercept) and rate of change (slope) of maternal overparenting on adolescent anxiety were different for boys and girls (Table 5), with significant chi-square differences between unconstrained model and the model of which equality constraint on $b_o (maternal)$ was imposed across gender ($\Delta\chi^2 = 4.982$, $p < .01$) (Table 5), and that between unconstrained model and the model of which equality constraint on $b_I (maternal)$ was imposed across gender ($\Delta\chi^2 = 9.326$, $p < .01$), respectively (Table 5). Positive predictions of intercept and slope of maternal overparenting on anxiety were stronger in adolescent girls than boys (Table 6). Regarding depression, chi-square difference between unconstrained model and the model of which equality constraint on $b_I (maternal)$ was found across gender ($\Delta\chi^2 = 4.626$, $p < .05$) (Table 5). Stronger prediction of slope of maternal overparenting on depression was found for adolescent girls than did boys (Table 6).

Discussion

The study examined the stability and changes of perceived paternal and maternal overparenting among Chinese adolescents in Hong Kong, and their effects on adolescent anxiety and depression across early adolescence. There are several unique features of this study. First, the study fills the research gaps by examining the trajectories of both perceived paternal and maternal overparenting and its effects on adolescent well-being using longitudinal data of three time points. Second, young adolescents were chosen as the targets of the study, which allows the examination of trajectories of overparenting and their relationships with adolescent psychological well-being in early adolescence. Third, a Chinese measure of overparenting was employed in the study, which recognized the unique Chinese features of child socialization based on familism and interdependence. Finally, parent gender and child gender in the relationships were examined in the study, which is rarely included in the existing scientific studies.

There are seven novel observations emerging from this study. First, paternal and maternal overparenting perceived by early Chinese adolescents declined over time. Second, adolescent girls perceived a faster drop of paternal overparenting over time. Third, the initial levels of maternal overparenting positively predicted increase in adolescent anxiety and depressive symptoms over time. Fourth, while the rates of change (slopes) of paternal and maternal overparenting positively predicted adolescent anxiety, the rate of change of maternal overparenting positively predicted adolescent depressive symptoms. Fifth, early adolescent anxiety negatively predicted a drop of paternal and maternal overparenting. Sixth, girls who reported higher initial levels of maternal overparenting exhibited higher anxiety than did those of boys. Seventh, girls who perceived a faster decline of maternal overparenting exhibited higher anxiety and depression than did boys.

For the first novel observation, the present findings echo the previous observations based on emerging adults that perceived paternal and maternal overparenting declined over time (Nelson et al., 2021). One possibility is that during early adolescence, individuals seek for more autonomy and independence in order to search for self-identity and build up connections with the external environment (Erikson 1968). This is a common process in the family life cycle where parents need to reduce their intrusions, control and involvement to their children to allow more room for their children to explore and develop (Bhargava & Witherspoon, 2015; Wang et al., 2014). Hence, parents may exercise less overparenting on their adolescent children and relax their parent-child relational boundaries. Another possibility is that Chinese adolescents have developed effective coping strategies to counter parental intrusion but at the same time maintain family harmony (Peng et al., 2023), which helps to desensitize both paternal and maternal overparenting across time. As research on overparenting and adolescent coping strategies is limited, further studies in this area are suggested. Also, we should be mindful of the distinction between perceived and actual overparenting.

It is insightful to identify that perceived paternal overparenting dropped faster in girls than did boys (i.e., the second novel observation). As adolescent girls are more emotionally connected with their mother and affectively detached from their fathers during the separation-individuation process (Geuzaine et al., 2000; Steinberg, 1987b), girls may perceive a faster declining rate of paternal overparenting over time than did boys. Besides, it is noteworthy that Chinese fathers exercise more paternal control over their sons than their daughters due to cultural and developmental considerations (Shek, 2008). Culturally, Chinese fathers have higher expectations on their sons as indicated in the Chinese proverb of “*wang zi cheng long*” (i.e., expecting the son to be a “dragon”), hence they would make more preparation for sons (Shek,

2008). Moreover, as boys are more aggressive and rebellious than are girls, fathers may need to involve more in parenting (overparenting) to regulate their sons' behavior and prevent their sons from engaging in problem behavior (Cote et al., 2002; Li et al., 2000).

The third observation is that the initial level of maternal overparenting positively predicted adolescent anxiety and depression. This observation can be explained in terms of the findings that Chinese mothers take up stronger supervising and caring roles in the family than do fathers, and the "strict and kind mother" parenting pattern in contemporary Chinese families (Shek 2008). Adolescents perceiving high levels of maternal overparenting in earlier adolescence stage may experience prolonged maternal intrusion, overinvolvement and emotional overreaction, which may exert greater pressure that may lead to higher anxiety and more depressive symptoms.

For the fourth observation, the declining trajectories (slopes) of paternal and maternal overparenting were positively associated with adolescent anxiety; the declining trajectory of maternal overparenting also positively predicted adolescent depression. The results seem to support the family systems theory and the notion of parent-child interdependence in the Chinese culture. In the Chinese culture, parents take up strong guiding and caring roles in child socialization (Zhang et al., 2017), particularly in their children's school performance (Shek & Sun, 2014). Children may easily develop parent-child enmeshment (Hesse et al., 2018) and dependency on their parents' advice and assistance when they are getting used to the overinvolvement and plentiful support from their parents. Hence, when adolescents perceive their parents (particularly mothers) gradually reduce their overparenting practice, their anxiety and depressive symptoms might increase as they need to manage their life routine and future plan by themselves (but they were not trained to do these tasks). Moreover, adolescents may be

emotionally insecure when they perceive parental guidance and assistance as an indicator of parent-child closeness. The drop in maternal overparenting is more influential to their children's depressive symptoms, probably because Chinese mothers take up strong child-rearing roles (Shek, 2008).

For the fifth observation, we also identified reciprocal effects of adolescent anxiety on paternal and maternal overparenting trajectories (i.e., bidirectional influences). When adolescents exhibit high levels of anxiety, they may ask for their parents' assistance. Parents are also anxious when their children are not capable to solve their problems. Thus, they are ready to step in the lives of their children by removing the obstacles and paving the ways for their children. Their involvement may offset adolescents' increasing anxiety. The findings support the view that parents and adolescent children are mutually related. Of course, as our findings are novel, there is a need to replicate the findings.

For the sixth observation, adolescent girls who perceived higher initial level of maternal overparenting reported greater anxiety than did boys. This may be explained in terms of gender differences in their reaction to puberty. As puberty occurs earlier for girls than boys, and girls are more sensitive to maternal intrusions (Nelson & Crick, 2002; Steinberg, 1987b), girls exert greater pressure to strive for a balance between keeping personal secrecy and accepting maternal intrusion. Hence, higher initial levels of maternal overparenting predicted higher anxiety for girls than boys.

For the final observation, girls who perceived a faster decline in maternal overparenting reported greater anxiety and more depressive symptoms than did boys. As adolescent girls are more sensitive to affective responses of their mothers than are boys (Janssens et al., 2009; Shek,

2008), the decline of maternal overparenting may be perceived as maternal distancing and reduced care for them, which may lead to poorer well-being of adolescents.

Theoretical and Practical Implications

As studies examining the trajectories of overparenting and their effects on well-being among early Chinese adolescents are non-existent, this study is novel and makes theoretical contributions to the existing scientific family literature on overparenting. The findings are important for future studies of overparenting at different stages of the developmental life span in both Western and non-Western contexts. The study is also insightful for the development of contemporary Chinese socialization models. As the present findings are not consistent with those based on the Western literature (e.g., declining overparenting trajectories positively predicted adolescent anxiety), the mechanisms involved should be further clarified based on a cross-cultural perspective (Cui et al., 2022).

Practically, the study showed that Chinese adolescents exhibited higher levels of adolescent anxiety and depression when their parents slowed down their overparenting practice along early adolescence. Hence, parents should be sensitive of the importance of showing concern without overparenting behavior. Obviously, open communication on related behavior (e.g., reduction in parental assistance) would be helpful. Besides, parents and children may easily develop an enmeshed relationship via overparenting. Moreover, when their adolescents exhibited higher anxiety in early stage of adolescence, they reported accelerated overparenting, which may reinforce the parent-child enmeshment in the long run. Family practitioners should pay more attention to parent-child dynamics in Chinese families with adolescent children, and assist adolescent children and parents in their self-differentiation.

Limitations of the Study

Despite of its pioneer nature, there are several limitations of the study. First, only young adolescents were recruited in the study. Hence, only adolescent “perceived” overparenting instead of “actual” overparenting practice was measured. Although it is justifiable that adolescent children are the “receivers” of overparenting and their well-being is directly related with their subjective experience (Elstad & Stefansen, 2014), it is desirable to collect data from their parents as multiple data source can give a more comprehensive analysis of Chinese socialization (Shek, 2006). Second, as the dataset was not missing completely at random, the analyses should be interpreted with cautions. Third, we collected data at only three time points during early adolescence to assess the trajectories of perceived paternal and maternal overparenting, which suffers from the limitations of examining the quadratic trajectories. It would be helpful to have more time points in examining the stability and changes of overparenting across adolescence. Fourth, as we collect data from a sample of young Chinese adolescents in Hong Kong, it is suggested to replicate the study in other Chinese communities (e.g., mainland China, Taiwan, American Chinese etc.) to generalize the findings. Finally, as only Chinese participants were recruited in the study, there is a need to include Western participants to address the issue of whether there are cross-cultural differences in over-parenting and its effect.

Conclusions

Despite the above-mentioned limitations, the study is pioneering to assess the stability and changes of perceived paternal and maternal overparenting among young adolescents in a Chinese context, and examine their effects on adolescent well-being. The findings are rich and insightful to identifying declining trajectories of perceived paternal and maternal overparenting, and the positive prediction of initial levels and rate of changes of maternal overparenting on

adolescent anxiety and depression. The negative associations of early adolescent anxiety with declining trajectories of paternal and maternal overparenting were also identified. The findings provide important contributions in the study of overparenting as well as development of Chinese socialization models. In response to the criticism of Cui et al. (2022) that “the lack of utilization of a longitudinal design is a clear limitation in studies on this [overparenting] topic” (p. 1090), the present study takes a humble step to respond to the criticism.

Funding: This research was financially supported by the General Research Fund, Research Grants Council (Project Code: PolyU 15602417).

Institutional Review Board Statement: This research was approved by the Human Subjects Ethics Sub-committee (HSESC) (or its Delegate) of The Hong Kong Polytechnic University. All respondents and their parents have given written informed consent before data collection.

Informed Consent Statement: All respondents and their parents have given written informed consent before data collection.

Data Availability Statement: Datasets generated for this research are available upon request to the corresponding author on reasonable request.

Conflicts of Interest: The author declares no conflict of interest.

Acknowledgements: This research was financially supported by the General Research Fund, Research Grants Council (Project Code: PolyU 15602417).

References

- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist* 54: 317.
- Baumrind, D. (1991). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner, & A.C. Peterson (Eds.), *The encyclopedia of adolescence* (pp. 746-758). Garland.
- Baumrind, D. (2005). Patterns of parental authority and adolescent autonomy. *New directions for child and adolescent development*, 2005(108), 61-69.
- Bhargava, S., & Witherspoon, D. P. (2015). Parental involvement across middle and high school: Exploring contributions of individual and neighborhood characteristics. *Journal of Youth and Adolescence*, 44, 1702-1719.
- Byrne, B. M. (2016). *Structural equation modeling with AMOS: basic concepts, applications, and programming* (3rd Ed.). Routledge.
- Cole, D.A. & Maxwell, S.E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology*, 112(4), 558-577.
- Cote, S., Tremblay, R. E., Nagin, D. S., Zoccolillo, M., & Vitaro, F. (2002). Childhood behavioral profiles leading to adolescent conduct disorder: Risk trajectories for boys and girls. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(9), 1086-1094.
- Cui, M, Hong, P., & Jiao. C. (2022). Overparenting and emerging adult development: A systematic review. *Emerging Adulthood*, 10, 1076-1094.
- Curran, P. J., Obeidat, K. & Losardo, D. (2010). Twelve frequently asked questions about growth curve modeling. *Journal of Cognition and Development*, 11, 121-136.

- Elliott, G.C. (2009). *Family matters: The importance of mattering to family in adolescence*. Wiley-Blackwell.
- Elstad, J. I., & Stefansen, K. (2014). Social variations in perceived parenting styles among Norwegian adolescents. *Child Indicators Research*, 7, 649-670.
- Enders, C. K. (2010). *Applied missing data analysis*. Guilford Press.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. W. W. Norton & Company, Inc.
- Geuzaine, C., Debry, M., & Liesens, V. (2000). Separation from parents in late adolescence: The same for boys and girls? *Journal of Youth and Adolescence*, 29, 79-91.
- Gibbs, N. (2009). The growing backlash against overparenting. *Time Magazine*.
- Grotevant, H. D., & Cooper, C.R. (1986). Individuation in family relationships: A perspective on individual differences in the development of identity and role-taking skills in adolescence. *Human Development*, 29, 82-100.
- Hayes, K. N., & Turner, L. A. (2021). The Relation of Helicopter Parenting to Maladaptive Perfectionism in Emerging Adults. *Journal of Family Issues*, 42(12), 2986-3000.
<https://doi.org/10.1177/0192513X21993194>
- Hesse, C., Mikkelsen, A. C., & Saracco, S. (2018). Parent–child affection and helicopter parenting: Exploring the concept of excessive affection. *Western Journal of Communication*, 82(4), 457-474.
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, 45, 740-763.
- Hosley, C.A., & Montemayor, R. (1997). Fathers and adolescents. In M.E. Lamb (Ed.), *The role of the father in child development* (pp. 162-178). John Wiley.

Howard, J. M., Nicholson, B. C., Madson, M.C., Mohn, R.S., & Bullock-Yowell. E. (2021).

Exploring student-athlete grit as a mediator in the relationships between parenting, academic success, and mental health outcomes. *Journal of Clinical Sport Psychology*, 16, 109–129.

<https://doi.org/10.1123/jcsp.202>

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis:

Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.

Janssens, K.A.M., Oldehinkel, A.J., & Rosmalen, J.G.M. (2009). Parental overprotection predicts the development of functional somatic symptoms in young adolescents. *The Journal of Pediatrics*, 154, 918-23.

Jiao, J., & Segrin, C. (2020). Parent-emerging-adult-child attachment and overparenting. *Family Relations*, 70, 859–865. <https://doi.org/10.1111/fare.12473>

Kouros, C. D., Pruitt, M.M., Ekas, N.V., Kiriaki, R. & Sunderland, M. (2017). Helicopter parenting, autonomy support, and college students' mental health and well-being: The moderating role of sex and ethnicity. *Journal of Child and Family Studies*, 26, 939-949.

Leung, C. M., Ho, S., Kan, C. S., Hung, C. H., & Chen, C. N. (1993). Evaluation of the Chinese version of the Hospital Anxiety and Depression Scale: A cross-cultural perspective. *International Journal of Psychosomatics*, 40, 29-34.

Leung, C. M., Wing, Y. K., Kwong, P. K., & Shum, A. L. K. (1999). Validation of the Chinese-Cantonese version of the Hospital Anxiety and Depression Scale and comparison with the Hamilton Rating Scale of Depression. *Acta Psychiatrica Scandinavica*, 100(6), 456-461.

Leung, J. T.Y. (2020). Too much of a good thing: Perceived overparenting and well-being of Chinese adolescents in Hong Kong. *Child Indicators Research*, 13, 1791-1809. DOI 10.1007/s12187-020-09720-0

- Leung, J.T.Y. (2021). Overparenting, parent-child conflict and anxiety among Chinese adolescents: A cross-lagged panel study. *International Journal of Environmental Research and Public Health*, 18, 11887. <https://doi.org/10.3390/ijerph182211887>
- Leung, J.T.Y., & Shek, D.T.L. (2011). Expecting my child to become “Dragon” --- Development of the Chinese Parental Expectation on Child’s Future Scale. *International Journal on Disability and Human Development*, 10, 257-265.
- Leung, J. T. Y., & Shek, D. T. L. (2016). The Influence of Parental Beliefs on the Development of Chinese Adolescents Experiencing Economic Disadvantage. *Journal of Family Issues*, 37(4), 543–573.
- Leung, J. T.Y., & Shek, D. T. L. (2018). Validation of the perceived Chinese Overparenting Scale in emerging adults in Hong Kong. *Journal of Child and Family Studies*, 27, 103-117.
- Leung, J. T.Y., & Shek, D. T. L. (2019). Hierarchical factor analysis and factorial invariance of the Chinese Overparenting Scale. *Frontiers in Psychology*, 10, 1873. DOI: 10.3389/fpsyg.2019.01873
- Leung, J. T.Y., & Shek, D. T. L., & Ng, L. S. L. (2018). Overparenting from the perspectives of Chinese parents and youths. In *Childhood and Adolescence: Tribute to Emanuel Chigier, 1928-2017* (pp. 115-136). Nova Science Publishers.
- Leung, J. T.Y., & Shek, D. T. L., Fung, A.L., & Leung, G.S. (2021). Perceived overparenting and developmental outcomes among Chinese adolescents: Do family structure and conflicts matter? *Journal of Social and Personal Relationships*, 38, 742-764. <https://doi.org/10.1177/0265407520971713>
- Li, X., Stanton, B., & Feigelman, S. (2000). Impact of perceived parental monitoring on adolescent risk behavior over 4 years. *Journal of Adolescent Health*, 27(1), 49-56.

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83, 1198–1202.

<https://doi.org/10.1080/01621459.1988.10478722>.

Locke, J. Y., Campbell, M. A., & Kavanagh, D. (2012). Can a parent do too much for their child? An examination by parenting professionals of the concept of overparenting.

Australian Journal of Guidance and Counselling, 22(2), 249-265.

<https://eprints.qut.edu.au/55005/>

Longmore, M. A., Manning, W. D., & Giodano, P. C. (2013). Parent-child relationships in adolescence. In Mark A. Fine & Frank D. Fincham, *Handbook of family theories: A content-based approach* (pp. 28-50). Routledge.

Love, H., May, R.W., Cui, M., & Fincham, F. D. (2020). Helicopter parenting, self-control, and school burnout among emerging adults. *Journal of Child and Family Studies* 29, 327–337.

<https://doi.org/10.1007/s10826-019-01560-z>

Marsh, P., McFarland, F. C., Allen, J. P., McElhaney, K. B., & Land, D. (2003). Attachment, autonomy, and multifinality in adolescent internalizing and risky behavioral symptoms. *Development and Psychopathology*, 15, 451-467.

McNeish, D., & Matta, T. (2018). Differentiating between mixed-effects and latent-curve approaches to growth modeling. *Behavior Research Methods*, 50, 1398-1414.

McGinley, M., & Davis, A. N. (2020). Helicopter parenting and drinking outcomes among college students: The moderating role of family income. *Journal of Adult Development*, 28(3), 221–236. <https://doi.org/10.1007/s10804-020-09366-w>

Minuchin, S. (1974). *Families and family therapy*. Harvard University Press.

- Moilanen, K.L., & Manuel, M. L. (2019). Helicopter parenting and adjustment outcomes in young adulthood: A consideration of the mediating roles of mastery and self-regulation. *Journal of Child and Family Studies*, 28, 2145–2158. <https://doi.org/10.1007/s10826-019-01433-5>
- Nelson, D. A., & Crick, N.R. (2002). Parental psychological control: Implications for childhood physical and relational aggression. In Brian K. Barber (ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 161-189). American Psychological Association.
- Nelson, L. J., Padilla-Walker, L. M., & McLean, R. D. (2021). Longitudinal predictors of helicopter parenting in emerging adulthood. *Emerging Adulthood*, 9, 240-251.
- Peng, S., Hawk, S.T., & Wang, Y. (2023). Perceptions of parental privacy invasion and information management among Chinese Adolescents: Comparing between-and within-family associations. *Journal of Youth and Adolescence*, 52, 1287-1230.
- Perez, C. M., Nicholson, B. C., Dahlen, E. R., & Leuty, M. E. (2020). Overparenting and emerging adults' mental health: The mediating role of emotional distress tolerance. *Journal of Child and Family Studies*, 29, 374-381.
- Rapee, R. M. (2009). Early adolescents' perceptions of their mother's anxious parenting as a predictor of anxiety symptoms 12 months later. *Journal of Abnormal Child Psychology*, 37, 1103-1112.
- Reed, K., Duncan, J. M., Lucier-Greer, M., Fixelle, C., & Ferraro, A. J. (2016). Helicopter parenting and emerging adult self-efficacy: Implications for mental and physical health. *Journal of Child and Family Studies*, 25, 3136–3149. <https://doi.org/10.1007/s10826-016-0466-x>

- Rogers, A.A., Padilla-Walker, L.M., McLean, R. D., & Hurst, J. L. (2020). Trajectories of perceived parental psychological control across adolescence and implications for the development of depressive and anxiety symptoms. *Journal of Youth and Adolescence*, 49, 136-149.
- Ryan, R.M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Segrin, C., Givertz, M., Swaitkowski, P., & Montgomery, N. (2015). Overparenting is associated with child problems and a critical family environment. *Journal of Child and Family Studies*, 24, 470–479. doi:10.1007/s10826-013-9858-3
- Segrin, C., Jiao, J. & Wang, J. (2022). Indirect effects of overparenting and family communication patterns on mental health of emerging adults in China and the United States. *Journal of Adult Development*, 29, 205-217. <https://doi.org/10.1007/s10804-022-09397-5>
- Segrin, C., Wosidlo, A., Givertz, M., Bauer, A., & Murphy, M.T. (2012). The association between overparenting, parent-child communication, and entitlement and adaptive traits in adult children. *Family Relations*, 61, 237-252.
- Shek, D.T.L. (2006). Chinese family research: Puzzles, progress, paradigms, and policy implications. *Journal of Family Issues*, 27, 275-284.
- Shek, D. T. (2008). Perceived parental control and parent–child relational qualities in early adolescents in Hong Kong: Parent gender, child gender and grade differences. *Sex Roles*, 58, 666-681.
- Shek, D.T.L., & Sun, R.C.F. (2014). Parenting in Hong Kong: Traditional Chinese cultural roots and contemporary phenomena. In Helaine Selin (ed.), *Parenting across cultures: Childrearing, motherhood and fatherhood in non-Western cultures* (pp. 25-38). Springer.

- Soenens, B., & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of parental psychological control: proposing new insights on the basis of self-determination theory. *Developmental Review*, 30, 74–99. <https://doi.org/10.1016/j.dr.2009.11.001>.
- Steinberg, L. (1987a). Impact of puberty on family relations: Effects of pubertal status and pubertal timing. *Developmental Psychology*, 23(3), 451–460.
- Steinberg, L. (1987b). Recent research on the family at adolescence: The extent and nature of sex differences. *Journal of Youth and Adolescence*, 16(3), p. 191-197.
- Steinberg, L., & Silk, J. S. (2002). Parenting Adolescents. In M. H. Bornstein (ed.), *The Handbook of Parenting, Vol. 1: Children and Parenting* (pp. 103-134). Erlbaum.
- Tarka, P. (2018). An overview of structural equation modeling: its beginnings, historical development, usefulness and controversies in the social sciences. *Quality & Quantity*, 52, 313-354.
- Van Lissa, C. J., Keizer, R., Van Lier, P. A. C., Meeus, W. H. J., & Branje, S. (2019). The role of fathers' versus mothers' parenting in emotion-regulation development from mid-late adolescence: Disentangling between-family differences from within-family effects. *Developmental Psychology* 55: 377.
- Wang, M., Hill, N. E., & Hofkens, T. (2014). Parental involvement and African American and European American adolescents' academic, behavioral, and emotional development in secondary school. *Child Development*, 85(6), 2151–2168. doi:10.1111/cdev.12284
- Wang, M., Hill, N.E., & Hofkens, T. (2014). Parental involvement and African American and European American adolescents' academic, behavioral, and emotional development in secondary school. *Child Development*, 85, 2151–2168. doi:10.1111/cdev.12284

- Zhang, W., Wei, X., Ji, L., Chen, L., & Deater-Deckard, K. (2017). Reconsidering parenting in Chinese culture: Subtypes, stability, and change of maternal parenting style during early adolescence. *Journal of Youth and Adolescence*, 46, 1117-1136.
- Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67, 361-370.

Fig. 1. A schematic illustration of the LGC model of paternal and maternal of overparenting.

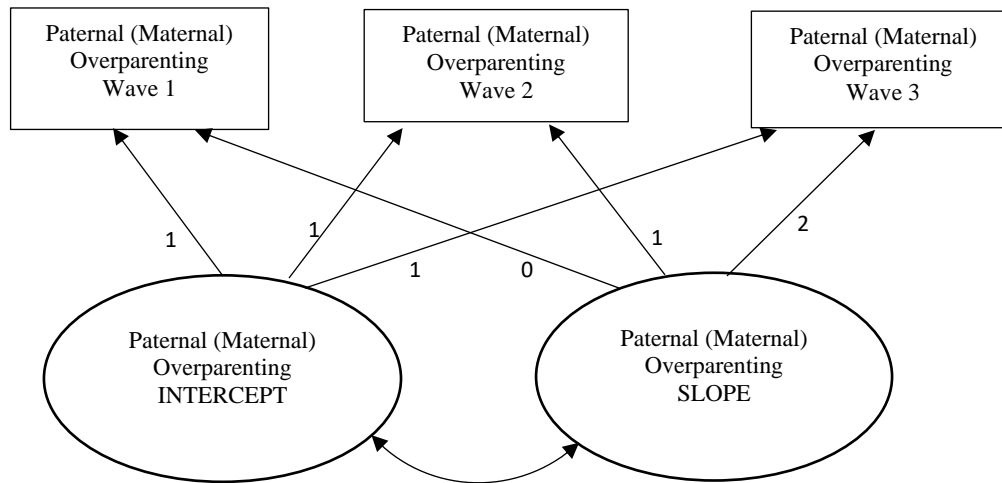


Fig. 2. A schematic illustration of the extended LGC model of paternal and maternal overparenting on adolescent well-being.

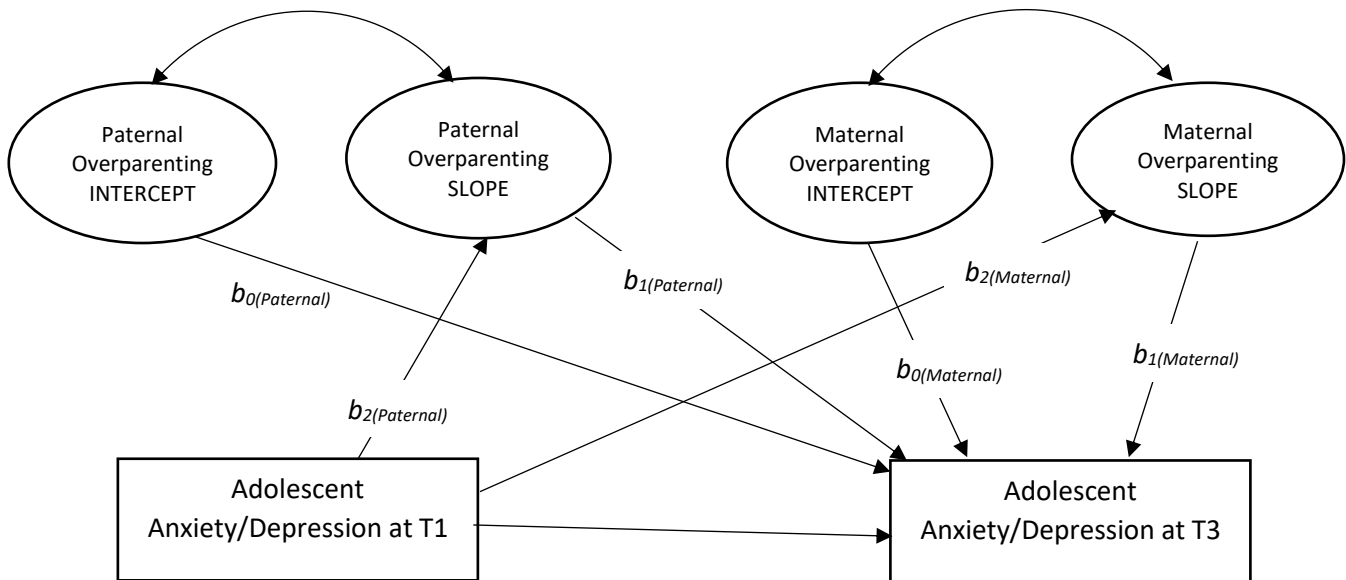


Table 1. Descriptive statistics of the variables

	Time 1 (N = 1,399)		Time 2 (N = 1,263)		Time 3 (N = 1,057)	
	M	SD	M	SD	M	SD
Paternal overparenting	2.62	.84	2.57	.81	2.50	.82
Maternal overparenting	3.14	.92	3.09	.92	2.98	.90
Anxiety	2.20	.55	N.A.	N.A.	2.23	.52
Depression	2.02	.54	N.A.	N.A.	2.07	.53

Table 2. Correlations of the variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Perceived paternal overparenting (T1)	1.00											
2. Perceived paternal overparenting (T2)	.62***	1.00										
3. Perceived paternal overparenting (T3)	.51***	.57***	1.00									
4. Perceived maternal overparenting (T1)	.52***	.31***	.28***	1.00								
5. Perceived maternal overparenting (T2)	.35***	.53***	.34***	.62***	1.00							
6. Perceived maternal overparenting (T3)	.30***	.34***	.60***	.53***	.65***	1.00						
7. Anxiety (T1)	.08**	.05	.02	.13***	.11***	.09**	1.00					
8. Anxiety (T3)	.01	.03	.06	.09**	.14***	.17***	.39***	1.00				
9. Depression (T1)	.00	-.04	-.03	.04	.04	.02	.50***	.21***	1.00			
10. Depression (T3)	.04	-.01	.05	.05	.05	.10**	.23***	.46***	.38***	1.00		
11. Gender (boys = 0, girls = 1)	-.09***	-.11***	-.11***	-.01	-.06*	-.10**	-.01	.01	-.08**	-.13***	1.00	
12. Family Intactness (non-intact = 0, intact = 1)	.07**	.07*	.10**	-.01	-.02	-.01	-.05	-.04	-.12***	-.05	-.02	1.00
13. CSSA Recipient (No = 0, Yes = 1)	-.02	-.05	-.04	.04	.02	.03	.04	.02	.06	.04	.03	-.19***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Results of LGC modelling on trajectories of overparenting

	Intercept		Linear Slope		χ^2 (df)	Model Fit			Model Comparison (constraining mean and variance of intercept to be equal between groups)	Model Comparison (constraining mean and variance of slope to be equal between groups)
	Mean	Variance	Mean	Variance		CFI	NFI	RMSEA	$\Delta\chi^2$	$\Delta\chi^2$
Paternal overparenting										
Total	2.62***	.00	-.05***	.01	2.500(6)	1.000	.997	.000		
Boys	2.69***	.03	-.04*	.02					1.28	20.62***
Girls	2.54***	.03	-.06***	.02						
Maternal overparenting										
Total	3.15***	.02	-.07***	.01	4.636(6)	1.000	.996	.000		
Boys	3.16***	.03	-.05*	.02					1.21	6.52
Girls	3.13***	.04	-.09***	.02						

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4. Extended LGC modelling analyses on the associations of trajectories of overparenting with adolescent well-being

		Intercept of overparenting → Adolescent well-being at T3 (b_0)			Slope of overparenting → Adolescent well-being at T3 (b_1)			Adolescent well-being at T1 → Slope of overparenting (b_2)			Model fit		
Outcome		B	SE	β	B	SE	β	B	SE	β	CFI	NFI	RMSEA
Anxiety	Paternal overparenting	.03	.03	.04	.34	.16	.15*	-.06	.02	-.13*	.988	.991	.040
	Maternal overparenting	.08	.02	.11*	.37	.10	.21**	-.06	.02	-.11*			
Depression	Paternal overparenting	.05	.03	.07	.15	.13	.07	-.02	.02	-.06	.986	.990	.039
	Maternal overparenting	.05	.02	.08*	.20	.09	.11*	-.02	.02	-.04			

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Multiple group analyses of extended LGC modelling in the associations of trajectories of overparenting with adolescent well-being across adolescent gender

Outcome	Model	Model fit				Model Comparison	
			$\chi^2(df)$	CFI	NFI	RMSEA	$\Delta\chi^2(\Delta df)$
Anxiety	M1	Unconstrained model	57.350(22)***	.991	.985	.034	
	M2a	Constraining $b_{0(paternal)}$ to be equal between groups	60.723(23)***	.990	.985	.034	M1 vs M2a 3.373(1)
	M2b	Constraining $b_{1(paternal)}$ to be equal between groups	62.331(23)***	.990	.984	.035	M1 vs M2b 4.982(1)*
	M2c	Constraining $b_{2(paternal)}$ to be equal between groups	59.287(23)***	.991	.985	.034	M1 vs M2c 1.938(1)
	M2d	Constraining $b_{0(maternal)}$ to be equal between groups	66.675(23)***	.989	.983	.037	M1 vs M2d 9.326(1)**
	M2e	Constraining $b_{1(maternal)}$ to be equal between groups	61.130(23)***	.990	.984	.034	M1 vs M2e 3.781(1)
Depression	M2f	Constraining $b_{2(maternal)}$ to be equal between groups	60.999(23)***	.990	.985	.034	M1 vs M2f 3.650(1)
	M3	Unconstrained model	68.532(22)***	.988	.985	.034	
	M4a	Constraining $b_{0(paternal)}$ to be equal between groups	68.581(23)***	.988	.985	.034	M3 vs M4a .049(1)
	M4b	Constraining $b_{1(paternal)}$ to be equal between groups	71.520(23)***	.987	.984	.035	M3 vs M4b 2.987(1)
	M4c	Constraining $b_{2(paternal)}$ to be equal between groups	69.619(23)***	.988	.985	.034	M3 vs M4c 1.087(1)
	M4d	Constraining $b_{0(maternal)}$ to be equal between groups	73.058(23)***	.987	.983	.037	M3 vs M4d 4.626(1)*
	M4e	Constraining $b_{1(maternal)}$ to be equal between groups	68.978(23)***	.988	.984	.034	M3 vs M4e .446(1)
	M4f	Constraining $b_{2(maternal)}$ to be equal between groups	68.910(23)***	.988	.985	.034	M3 vs M4f .378(1)

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Regression analyses of associations of trajectories of overparenting with adolescent well-being between boys and girls

		Boys				Girls		
		B	SE	β	B	SE	β	
Adolescent Anxiety	Intercept of maternal overparenting → anxiety at T3	b _{0(maternal)}	.04	.03	.06	.15	.04	.21***
	Slope of maternal overparenting → anxiety at T3	b _{1(maternal)}	.16	.09	.11 [‡]	.98	.49	.38*
Depression	Slope of maternal overparenting → depression at T3	b _{1(maternal)}	.05	.09	.03	.48	.26	.21 [‡]

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$