



Regulatory Focus as a Mediator between Perceived Parenting Style and Friendship Intimacy in Chinese Emerging Adulthood

Wei-Wen Chen ¹ · Ziyang Wang ¹ · Yajun Zhang¹

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Abstract

In this study, we examined the relationship continuity between parent–child relationships and friendships. Based on the theoretical framework of the internal working model, the study aimed to investigate the mediating role of regulatory focus in the relationship between adult children’s perceptions of parenting styles and friendship intimacy in the Chinese cultural context. The sample included 400 emerging adults aged 18–25 years from Taiwan. Using structural equation modeling, we found that both perceived authoritative and authoritarian parenting styles directly contributed to intimacy in emerging adults’ friendships—authoritative parenting contributed to higher levels of friendship intimacy, whereas authoritarian parenting contributed to lower levels of friendship intimacy. Authoritative parenting was positively associated with both promotion and prevention focus, and authoritarian parenting was positively associated with prevention regulatory focus. Only promotion regulatory focus was positively linked to friendship intimacy. Moreover, authoritative parenting was found to indirectly contribute to higher friendship intimacy through the mediating effect of promotion regulatory focus. These results expanded our understanding of regulatory focus theory in the field of intimate relations and explained how regulatory focus plays a role in the underlying mechanisms of the relationship between perceived parenting and emerging adult friendship intimacy.

Keywords Perceived parenting styles · Regulatory focus · Friendship intimacy

Highlights

- The current study examined associations between the Chinese emerging adults’ perceptions of parenting styles, regulatory focus, and friendship intimacy in the Chinese cultural context.
- Perceived authoritative parenting was associated with higher levels of friendship intimacy, and perceived authoritarian parenting was associated with lower levels of friendship intimacy.
- Perceived authoritative parenting was positively associated with both promotion and prevention regulatory focus, whereas perceived authoritarian parenting was positively associated with prevention regulatory focus.
- Promotion regulatory focus was positively linked to friendship intimacy.
- Promotion regulatory focus mediated the relation between perceived authoritative parenting and friendship intimacy among Chinese emerging adults.

“When your friends are your family”—was the slogan when *Friends: The Reunion* debuted in 2021, 17 years after its last episode aired in 2004. This nostalgic American

television sitcom described how six friends share bonds like families and support each other through all their ups and downs during their 20 s. Consistent with this main idea in *Friends*, research indicates that high-quality friendships and strong intimacy in friendships are positively linked to better social adjustment, including increased self-esteem, happiness, and life satisfaction as well as decreased addictive behaviors (Anderson & Fowers, 2020; Demir et al., 2013; Kim et al., 2018; Raboteg-Saric & Sakic, 2014). Like the six characters in *Friends*, young individuals in reality are

✉ Ziyang Wang
ziyang.wang@connect.um.edu.mo

¹ Faculty of Education, University of Macau, Avenida da Universidade, Taipa, Macau, China

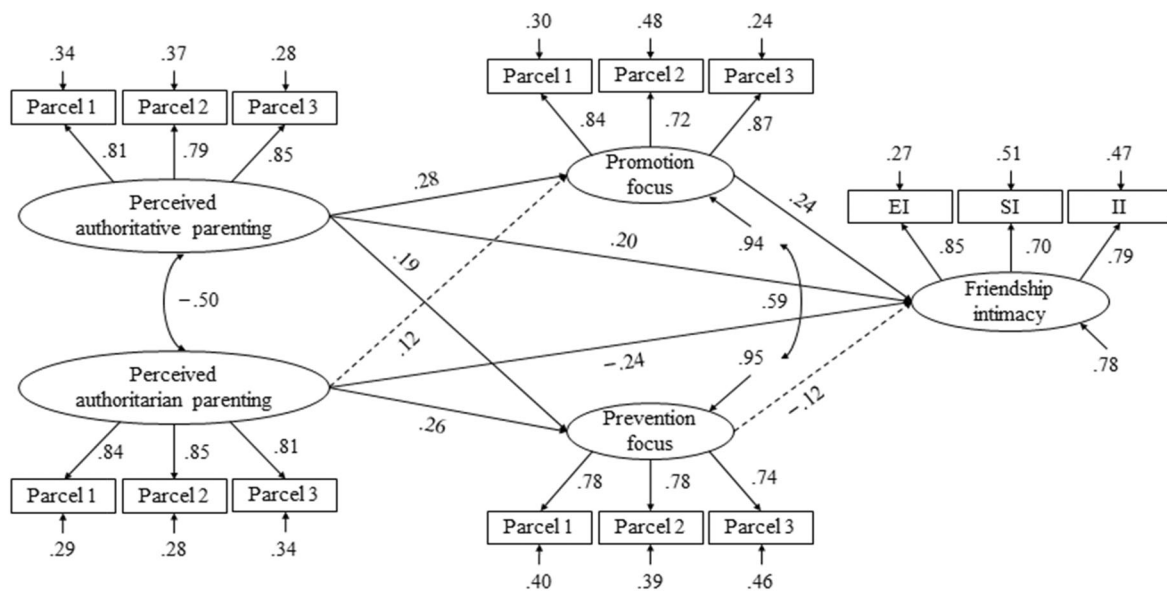


Fig. 1 The structural model of emerging adults' perceptions of their parents' parenting, regulatory focus, and friendship intimacy. *Note.* The estimates represent standardized coefficients; the coefficients of solid lines were significant; those of dotted lines were not significant; and the coefficient is from the overall sample ($n = 400$)

also psychologically ready to depart from their parents, and establish their own social networks when beginning college, a transitional period termed “emerging adulthood” in research (Arnett, 2000, 2007). Although some research has investigated parents' distal influence on the development of older children's interpersonal relations, these studies tend to focus either on groups of adolescents (e.g., Bi et al., 2018) or on relationships within a romantic context (e.g., Chen et al., 2020). Unlike adolescents, who still physically live with their parents, emerging adults in college are living independently for the first time, and they spend significantly more time with their friends. Friends can be the primary source for intimacy in young adults' lives, especially for those who are not involved in romantic relationships. However, little research has addressed how different patterns of parent–child relationships may be associated with their continuity in young adults' intimate relationships with friends. Therefore, the present study aimed to explore the link between parenting and friendship intimacy among young adults and the potential mechanism underneath such a link.

Studies investigating the significant link between parenting and children's quality of interpersonal relationships were primarily conducted in highly individualized Western societies, without adaptation to different sociocultural contexts. According to attachment theory (Bowlby, 1969, 1973, 1980), support, responsiveness, and trust formed in early parent–child relationships will work as a security base for children to explore the outside world, which helps children become socially competent (Boling

et al., 2011). Research in Western societies has shown that securely attached children tend to have better peer and romantic relationships (e.g., Caron et al., 2012; Kochendorfer & Kerns, 2017). However, whether the findings of such studies could be applied to the Chinese cultural context, where collectivism is highly emphasized, remains unknown. Notably, Chinese ethics reflect Confucian values, a signifier of interdependence, whereby emotional connections within the family are prioritized over any other close interpersonal relationships (Moore, 1998; Moore & Leung, 2001; Xu et al., 2016). As a result, while in Western societies, romantic relationships are seen as normative developmental tasks among adolescents, parents in Chinese society tend to hold a strongly disapproving or even prohibiting attitudes toward early engagement by their children in romantic relationships, as such relationships serve to detach the children from their families (Li et al., 2010). Moreover, given the fierce academic competition within the Chinese education system, Chinese parents are inclined to view romantic relationships as distractions that might interfere with their children's academic success (Li et al., 2019). Such opposition to romantic relationships may delay the onset of romantic relationships among young adults, so Chinese emerging adults may be more likely to rely on their friends as their primary source of intimacy. Therefore, the purpose of this study was to extend the research on individuals' friendship to the Chinese cultural context and further explore the mechanism that underlies the association between perceived parenting and friendship intimacy among Chinese young adults.

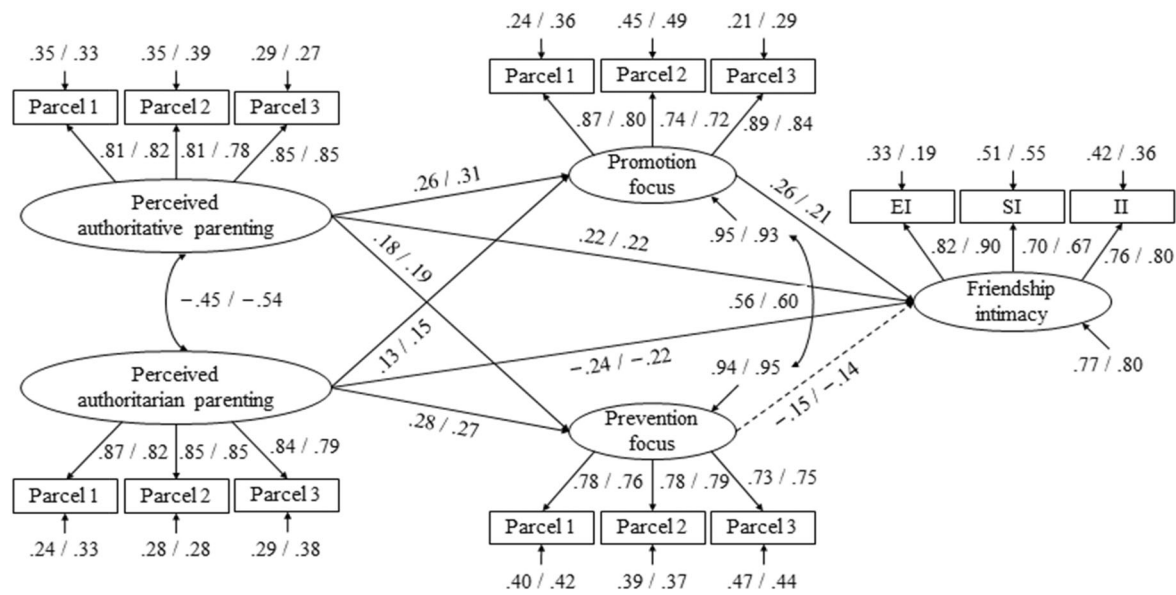


Fig. 2 The constrained structural model of male and female emerging adults' perceptions of their parents' parenting, regulatory focus, and friendship intimacy. *Note.* The estimates represent standardized coefficients; the coefficients of solid lines were significant; those of dotted lines were not significant; the first coefficient is from the male sample ($n = 186$); and the second is from the female sample ($n = 214$)

Perceived Parenting Styles and Friendships

Parenting style refers to the behavioral repertoire, beliefs, strategies, and emotional climates that parents establish in their childrearing when socializing their children (Maccoby & Martin, 1983). Three distinct parenting styles have been mainly proposed in research: authoritative parenting, authoritarian parenting, and permissive parenting (Baumrind, 1991). Authoritative parenting is characterized by high levels of warmth and control. It is defined as the degree to which parents demand mature behaviors from their children and implement clear standards for their children's conduct, while being responsive and willing to provide affection, autonomy, and support. Authoritarian parenting involves low warmth and high control. It is regarded as parents setting rules and guidelines for children's actions and showing low tolerance for mistakes or inappropriate behaviors. Permissive parenting refers to parents who are high in warmth but low in control. Baumrind's parenting typology has shown its broad applicability for exploring parenting practices across Western and Eastern cultures (Sorkhabi, 2005; Sorkhabi & Mandara, 2013). Nevertheless, there are still ethnic and regional differences regarding the nature and implications of parenting styles. For example, there is a dearth of evidence for the existence of permissive parenting in Asian cultures. Given an implicit parental control and high parental expectations inherently embedded in Asian parenting, permissive parenting has been shown to be lacking cultural relevance for Asian parents (Barnhart et al., 2013; Zhang et al., 2017). Therefore, prior research on parenting styles in Asian cultures tended to focus mainly on

authoritative and authoritarian parenting to create a clear contrast regarding the implications of parenting on individuals' functioning (e.g., Lee et al., 2013). We followed this reasoning and limited the investigation in the present study to two parenting styles: authoritative and authoritarian parenting.

Consistent with empirical evidence found in Western societies, research among Chinese populations found that the two parenting styles were linked to various developmental consequences. For example, most Chinese studies have consistently shown that authoritative parenting positively correlates with psychological well-being and school adjustment, whereas authoritarian parenting correlates with them negatively (Huang et al., 2017; Shek, 2002; Tang et al., 2018; Wu et al., 2021). However, researchers have proposed that some aspects of parenting have different implications in Chinese culture due to the culture-specific meanings embedded in parent-child interactions (Huang et al., 2017). Notably, based on Confucian ethics, parental control is regarded as parental care and love for their children, and children's obedience to their parents is seen as a sign of respect (Chao, 1994; Chua, 2011; Juang et al., 2013). Therefore, authoritarian parenting has been shown to be relatively less negative and can even be positive in the Chinese cultural context, particularly given its association with high academic aspiration and achievement (Huang & Gove, 2015; Luo et al., 2013). In contrast, given the obligations of being a filial son or daughter prescribed by the Confucian culture, children who perceive their parents as authoritative may also feel pressure to sacrifice their own interests to meet their parents' expectations (Chen, 2014).

However, there has been surprisingly little research on the link between parenting and children's quality of peer relations, particularly in Chinese populations. The small amount of empirical evidence available indicated that authoritative parenting, with its emphasis on warmth and reasoning in parent–child interactions, tends to be associated with better social competence among children (Zhang et al., 2021). The rational instruction and emotional support gained from interacting with their authoritative parents helps children learn adequate social skills and develop better quality of friendships with peers through practicing active problem-solving strategies such as proper self-disclosure and give-and-take (Guo, 2015). In contrast, due to the characteristic strictness and lack of warmth in parent–child interactions, authoritarian parenting is more likely to lead to difficulties in interpersonal issues. Children with authoritarian parenting are raised with a lack of open and equal interactions with parents, which makes them less likely to develop an adequate sense of mastery and control. As a result, these children can be at risk of higher vulnerability to internalizing and externalizing problems in behaviors such as aggression, shyness, and sensitivity, preventing them from establishing closeness with their friends (Zhao & Wang, 2010). However, all of these studies on parenting's effects on children's interpersonal development in the Chinese cultural context focused on a relatively young age group, i.e., preschool and elementary students. Less is known about whether authoritative and authoritarian parenting exerts similarly positive and negative effects, respectively, on Chinese emerging adults developing friendship intimacy.

Furthermore, the research lacks empirical evidence on the mechanism by which parent–child relationships may contribute to friendships. In what way parenting characteristics help shape individuals' competence or cognitive orientations, which in turn links to their interactions with best friends, is worthy of in-depth understanding. A theoretical framework proposed by Gray and Steinberg (1999) about relational continuity and pathways can be used to uncover how interaction patterns between parents and children are transmitted and work in adult children's other intimate relationships, including friendship intimacy. According to this framework, the parent–child interaction might be critical for adult children's intimate relationship quality due to its profound impacts on youths' patterns of cognitive interpretations about their life experiences. More specifically, through interacting with parents, adult children would have established internal working models that encompass individuals' behavioral repertoires and emotional dispositions. These interaction modes embedded through parenting would continue to exert influence over time and perpetuate themselves as the groundwork for the subsequent cognitive conceptualization of beliefs about the

self (and others), including expectation, goals, and efficacy beliefs about themselves (Waters et al., 2018). In turn, such cognitive scripts about the self contribute to other attachment-like relationships including intimacy in friendship. Consequently, it is reasonable to speculate that the potential process by which perceived parenting links to adult children's friendship quality might be through shaping their cognitive tendency and orientations.

Regulatory Focus

Regulatory focus refers to individuals' cognitive tendency and motivational orientations toward desired end-states, and it is closely associated with one's goals, coping strategies, reactions, decisions, and actions (Gomez et al., 2013; Lockwood et al., 2002). According to Higgins (1997, 1998), the hedonic principle (approach pleasure and avoid pain) operates in two distinct ways—promotion focus and prevention focus. *Promotion regulatory focus (PmRF)* is defined as the motivation to obtain positive outcomes and to adopt approach strategies—a tendency to seek opportunities for advancement, accomplishment, and achievement. *Prevention regulatory focus (PvRF)* is defined as the motivation to fulfill obligation and responsibilities, and to avoid negative outcomes and adopt avoidance strategies—a tendency to avert threats that may harm safety and security (Gomez et al., 2013). Numerous studies have consistently shown the positive versus negative implications of PmRF and PvRF, respectively, for individuals' mental health outcomes, such as mental distress (Schokker et al., 2010), emotions (Eddington et al., 2012), job satisfaction (Gorman et al., 2012), and psychosomatic symptoms (Koopmann et al., 2016). Specifically, due to its motivational orientation toward growth and enhancement, PmRF focuses on promoting positive outcomes with high enthusiasm, which is associated with better life adaptation. In contrast, PvRF links to more maladaptive outcomes, with its emphasis on the concern about potential risks, which further impedes progress and achievement.

However, most current literature on regulatory focus still limits its investigation at the individual level. Regulatory focus refers to one's cognitive preference of interpretations about events and actions in daily life, where interpersonal interaction experiences in fact occupy a considerable proportion. Therefore, research on the implications of regulatory focus should be expanded to a broader social context. It would be both theoretically and empirically valuable to further probe into how PmRF and PvRF would play an important role in interpersonal domains. Indeed, there is a small body of evidence that regulatory focus can significantly connect to one's decisions, reactions, and behaviors in their relationship with significant others.

For example, Gao et al. (2017) extended the investigation of regulatory focus to Chinese adolescents' friendship in the context of peer conflict resolutions. Their results showed that Chinese adolescents for whom PmRF was predominant tended to perceive greater relationship satisfaction due to their likelihood of adopting problem-solving strategies when dealing with conflicts with their best friends. In contrast, despite a nonsignificant direct relationship between PvRF and friendship satisfaction, PvRF was indirectly linked to lower friendship satisfaction through a greater tendency to engage in conflict with best friends (Gao et al., 2017). Despite the different age groups, these findings support the connections between the two regulatory focuses and the intimacy of friendship proposed in the present study. PmRF may be positively associated with friendship intimacy, whereas PvRF may not show a direct association with friendship intimacy. Furthermore, regulatory focus may be related to other significant intimate relationships, including parent–child relationships.

Despite sparse evidence on the link between parenting and regulatory focus, Higgins (1997) proposed that family experiences may be a critical antecedent for shaping individuals' habitual tendency of regulatory focus. Keller's (2008) empirical study further confirmed the connection proposed by Higgins (1997). In her study, authoritative parenting, which reflects a bolstering mode with high levels of both rational thinking, relatedness, and reciprocity, was related to individuals' stronger endorsement of PmRF. The support for autonomy emphasized in authoritative parenting may allow children more freedom and security for self-exploration and challenges (Baumrind, 2013). With strong personal agency originating from their warm and assertive parents, children with such parenting tend to be predominately promotion-focused and seek optimistic outcomes and adopt eager strategies (Keller, 2008). On the contrary, authoritarian parenting, which reflects a critical and punitive model with an emphasis on relationship hierarchy, role obligation, and parental authority, was associated with PvRF (Keller, 2008). The high level of demands and low tolerance for mistakes that characterize authoritarian parenting may trigger a tendency to reduce errors in order to avoid negative consequences for not meeting parental standards (Miller et al., 2012). With greater fear of failure stemming from their parents' strictness, children with such parenting are inclined to be predominantly prevention-focused and oriented toward negative outcomes and vigilant strategies. However, the abovementioned conclusions require further empirical verification, as the study included a very limited sample size and lacked statistical power in the analysis.

In addition, the relation between parenting and regulatory focus should be looked at further from a cultural perspective, as it may vary, given the different values highlighted in various cultures and social contexts. As suggested by Reeve

(2015), promotion tendency was encouraged in social contexts where personal gains and rewards are admired, so that the promotion focus was viewed as more acceptable in individualistic cultures where an independent self was highly regarded (Kurman & Hui, 2011). In contrast, a prevention focus was more likely to be prevalent in social contexts that stress fulfilling duties and being wary of potential loss, so it was more welcome in a collectivistic culture where interdependence was highly appreciated in social relationships (Kurman & Hui, 2011). Taken together, it is potentially meaningful to extend the research by empirically exploring the relation between parenting, regulatory focus, and friendship intimacy in the collectivist cultural context.

The Current Study

The current study was intended to explore the process by which two perceived parenting styles, authoritative and authoritarian parenting, were associated with Chinese emerging adults' friendship quality through the mediating roles of PmRF and PvRF. Based on prior empirical studies and theoretical frameworks of relationship continuity and pathways proposed by Gray and Steinberg (1999), regulatory focus, which refers to an individual's cognitive tendency related to goals and outcomes, can be viewed as a psychological repertoire and representation about self. Such cognitive tendency of interpreting life experiences, which invariably include experiences in social interactions, can also reflect individuals' expected goals and outcomes in an interpersonal context. Accordingly, regulatory focus may work as an intervening factor to help explain the relationship continuity from parent–child relationships to friendships. Therefore, we hypothesized the following: (H1) Perceived authoritative parenting is positively correlated with friendship intimacy, whereas perceived authoritarian parenting is negatively correlated with friendship intimacy among Chinese emerging adults. (H2) Promotion focus is positively correlated with friendship intimacy, whereas prevention focus is negatively correlated with friendship intimacy. (H3) Perceived authoritative parenting is positively related to promotion focus and negatively to prevention focus, whereas perceived authoritarian parenting is positively related to prevention focus and negatively to promotion focus. (H4) Promotion focus works as a mediator between authoritative parenting and friendship intimacy. (H5) Prevention focus serves as a mediator between authoritarian parenting and friendship intimacy.

In addition, the differential effects of perceived parenting on males and females have been explored in the literature with mixed findings. Some studies indicated that children of different genders are likely to be treated with relatively distinct gendered parenting—sons with more parental restrictiveness and control (indicative of authoritarian parenting) and

daughters with more parental warmth and autonomy-support (indicative of authoritative parenting)—due to differing gender socialization expectations and goals for males and females (Barnhart et al., 2013; Mastrotheodoros et al., 2019). Other research argued that such gender differences in parenting behaviors toward male and female children have become minimal in contemporary society (Endendijk et al., 2016). Therefore, to better understand this controversial issue of the role of child gender in parenting, we also examined whether the relations between emerging adult children's perceived parenting and their subsequent conceptualization of cognitive orientations and friendships differed for males and females. However, we did not have specific hypotheses about gender differences.

Method

Participants and Procedure

We recruited college students aged 18–25 years with an intimate friendship from three universities in northern Taiwan as our emerging adult participants in the current study. Prior to data collection, the proposal of the study, including methodology, has obtained approval from the institutional review board of the researchers' university. Participants completed paper-based questionnaires during about 20 minutes of their regular class period. Before they completed the surveys, participants were informed that the data would be processed confidentially, that their participation was voluntary, and that they were entitled to terminate their participation at any moment. All participants signed informed consent. After 17 participants' responses were removed due to the incomplete answers or lack of conformity with the age requirement, the final data comprised responses from 186 males and 214 females ($M_{\text{age}} = 19.98$; $SD = 1.47$). Of these participants, 92% of their parents remained married, 7% were divorced, and 1% were separated.

Measures

We obtained indices of participants' perceived parenting style, regulatory orientations, and friendship intimacy. Demographic information, including age, gender, school year, grade point average (GPA), and family background, was acquired in the surveys.

Perceived parenting style

We used the Parental Authority Questionnaire (PAQ; Buri, 1991) to assess participants' perceptions about parenting styles. The PAQ has been standardized and applied for assessing parenting perception among children across various

cultural backgrounds, including for Chinese parents and adolescents (Newman et al., 2015; Zhai et al., 2015). The PAQ-Chinese version has been widely adopted and has displayed strong reliability and validity for Chinese samples (Chan & Chan, 2007; Chen, 2014; Xie et al., 2016). For the current study, we used only two subscales of PAQ: (a) Authoritative Parenting subscale (9-item; e.g., *My parents had clear standards of behavior for the children in our home as I was growing up, but they were willing to adjust those standards to the needs of each of the individual children in the family*); and (b) Authoritarian Parenting subscale (10-item; e.g., *As I was growing up, my parent let me know what behavior they expected of me, and if I didn't meet those expectations, they punished me*). Participants responded to each item on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). We did not separately conceptualize paternal and maternal parenting styles in this study because previous research has provided compelling evidence that fathers and mothers are highly similar and complementary regarding the features of their parenting practices and that their parenting behaviors have similar effects on children (Fagan et al., 2014). In the present study, Cronbach's α for the overall authoritative parenting measure was 0.84, and for the overall authoritarian parenting measure, it was 0.85.

Regulatory focus

Students' regulatory orientation was measured with an adaptation of the General Regulatory Focus Measure (GRFM; Lockwood et al., 2002). This 18-item measure consists of two 9-item subscales: (a) Promotion Regulatory Focus (PmRF) measures the strength of focus on advancement and success (e.g., *I often think about how I can achieve my hopes and ambitions*), and (b) Prevention Regulatory Focus (PvRF) assesses the strength of focus on avoiding loss and failure (e.g., *I often worry that I will not be able to fulfill my responsibilities and obligations*). Responses were rated on a 9-point Likert scale, ranging from 1 (*not at all true of me*) to 9 (*very true of me*). The GRFM has been shown to have great psychometric properties, including solid construct and predictive validity and composite reliability (ELSamen, 2011, Summerville & Roese, 2008). The Chinese version was adapted by Kuo (2011) through a back-translation process and has been examined among Chinese students with good reliability and validity (Gao et al., 2017, Jia et al., 2012). In this study, Cronbach's α coefficients for PmRF and PvRF were 0.82 and 0.80, respectively.

Friendship intimacy

Individuals' perception of intimacy in their friendships was assessed with the Personal Assessment of Intimacy in

Table 1 Correlations, means, and standard deviations of the main variables

	1	2	3	4	5	Mean	SD
1. Authoritative parenting		−0.47***	0.14*	0.00	0.35***	3.57	0.59
2. Authoritarian parenting	−0.40***		0.05	0.19**	−0.35***	2.46	0.65
3. Promotion focus	0.26***	−0.09		0.47***	0.18**	6.83	0.92
4. Prevention focus	0.10	0.12	0.42***		0.01	6.44	1.11
5. Friendship intimacy	0.30***	−0.25**	0.17*	−0.08		3.63	0.47
Mean	3.56	2.55	6.65	6.24	3.40		
SD	0.59	0.68	1.15	1.17	0.46		

Note. Numbers below the diagonal are from the male group ($n = 186$); those above are from the female group ($n = 214$)

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$

Relationships scale (PAIR; Schaefer & Olson, 1981). This scale was translated from English into Chinese following the parallel back-translation procedure. Participants rated 18 items (6 for each dimension) on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) to estimate the extent to which they felt intimacy on 3 dimensions: (1) emotional intimacy, related to feelings of closeness, ability to share openly, and perception of an atmosphere of understanding and supportiveness with one's best friend (e.g., *I can state my feelings without him/her getting defensive*); (2) social intimacy, the degree to which one's supportive social network is shared with one's best friend (e.g., *Having time together with friends is an important part of our shared activities*); and (3) intellectual intimacy, related to the ability to share ideas and discuss issues and affairs in work and life with one's best friend (e.g., *We have an endless number of things to talk about*). Negatively worded items were reverse-scored so that greater scores indicated higher levels of intimacy in friendships. PAIR has been used for emerging adult samples across Western and Eastern cultures. It has consistently been validated as stable and representative for measuring relationship intimacy constructs and as well fitted with different populations (including the Chinese population) with satisfactory factorial validity and internal consistency reliability (e.g., Brassard et al., 2018; Chen & Wu, 2021; Marshall, 2008, Thériault et al., 2019). Cronbach's alpha in this study was 0.85.

Data Analysis

Preliminary analyses were conducted using SPSS 26.0, including the scales' reliability, descriptive statistics, t -tests, analysis of variance (ANOVA), and correlation. Confirmatory factor analysis (CFA) and structural equation modeling (SEM) were employed using AMOS 22.0 to examine the hypothetical models. Given the superior statistical qualities item-to-construct balanced parcels have shown over item-level indicators when used in SEM with

latent variables, such as improved model fit, accurate parameter estimates, enhanced distributional properties, reduced sampling error, and parsimonious specification of measurement structure (Dow et al., 2008; Little et al., 2002; Weijters & Baumgartner, 2022), we followed the item-to-construct balance rationale to obtain stable indicators of latent constructs. Specifically, the items of perceived parenting styles, regulatory focus, and friendship intimacy were each aggregated into three parceled indicators, respectively. We selected the goodness-of-fit index (GFI), Tucker–Lewis index (TLI), comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) as fit indicators. The thresholds for acceptable fit were as follows: GFI, TLI, and CFI > 0.90 ; RMSEA and SRMR < 0.08 (Bentler, 1990; Bentler & Bonett, 1980; Byrne, 2010; Hu & Bentler, 1999). We employed the bootstrapping method with 5,000 samples and 95% bias-corrected confidence intervals (CIs) to examine the mediating effects of the proposed models (Hayes & Preacher, 2010). The indirect impact was significant when its 95% confidence interval did not include zero.

Results

Preliminary Analysis

First, we ran an independent t -test to evaluate the gender differences in perceived parenting style, regulatory focus, and friendship intimacy. The result showed significant variance by gender only for friendship intimacy, with females reporting higher intimacy in their friendships than males (male: $M = 3.40$, $SD = 0.46$; female: $M = 3.63$, $SD = 0.47$), $t(398) = -4.87$, $p < 0.001$. Second, the means, standard deviations, and correlations for all study variables were calculated and are displayed in Table 1. In both male and female groups, perceived authoritative parenting was negatively related to authoritarian parenting (male: $r = -0.40$,

$p < 0.001$; female: $r = -0.47$, $p < 0.001$). Authoritative parenting was positively linked to PmRF (male: $r = 0.26$, $p < 0.001$; female: $r = 0.14$, $p < 0.05$) and friendship intimacy (male: $r = 0.30$, $p < 0.001$; female: $r = 0.35$, $p < 0.001$). In contrast, authoritarian parenting was negatively related to friendship intimacy for both males and females (male: $r = -0.25$, $p < 0.01$; female: $r = -0.35$, $p < 0.001$) but was positively related to PvRF for only females ($r = 0.19$, $p < 0.01$). For regulatory focus, PmRF and PvRF were positively related for both genders (male: $r = 0.42$, $p < 0.001$; female: $r = 0.47$, $p < 0.001$). Only PmRF was found to have significant and positive correlation with friendship intimacy across genders (male: $r = 0.17$, $p < 0.05$; female: $r = 0.18$, $p < 0.01$).

Testing the Measurement Model

To examine the reliability and validity of the measures in this study, we tested a measurement model allowing all the latent variables to correlate. The measurement model comprised five latent factors (perceived authoritative parenting, perceived authoritarian parenting, promotion focus, prevention focus, and friendship intimacy) and 15 observed variables. CFA for the measurement model showed an acceptable fit to the data, $\chi^2(80) = 268.12$, GFI = 0.92, TLI = 0.92, CFI = 0.94, RMSEA = 0.077, and SRMR = 0.057. Reliable factor loadings were found for all the indicators ($ps < 0.001$).

Testing the Hypothesized Structural Model

We examined the structural model of perceived parenting styles, regulatory focus, and friendship intimacy (Fig. 1) and found an adequate data fit, with the same fit indices as the measurement model. The model accounted for 6% of the shared variance for PmRF, 5% for PRF, and 22% for friendship intimacy.

The direct path from participants' perceived authoritative parenting to friendship intimacy was verified as significantly positive ($\beta = 0.20$, $p < 0.01$), whereas the direct path from participants' perceived authoritarian parenting to friendship intimacy was significantly negative ($\beta = -0.24$, $p < 0.001$). H1 was supported. Moreover, PmRF's positive effect on friendship intimacy was proven ($\beta = 0.24$, $p < 0.01$), whereas the negative effect of PvRF on friendship intimacy was not supported ($\beta = -0.12$, $p = 0.12$). H2 was partially supported. Participants' perceived authoritative parenting was positively associated with PmRF ($\beta = 0.28$, $p < 0.001$). However, perceived authoritative parenting was also unexpectedly found to be associated with PvRF ($\beta = 0.19$, $p < 0.01$). Concerning authoritarian parenting, a positively significant relationship was found only with

PvRF ($\beta = 0.26$, $p < 0.001$) and not with PmRF ($\beta = 0.12$, $p = 0.09$). Therefore, H3 was only partially supported.

To test the mediation effects of regulatory focus (PmRF and PvRF), we conducted bootstrapping analysis (Hayes & Preacher, 2010), which is more reliable than the causal step approach (Baron & Kenny, 1986) or the product of coefficients approach (Sobel, 1982). With a confidence interval excluding zero, only the mediating effect of PmRF on the link between perceived authoritative parenting and friendship intimacy was significant and positive (estimate = 0.06, $p < 0.01$, 95% CI [0.02, 0.14]). The results mentioned above supported H4 but not H5.

To test whether the pattern of relationships between perceived parenting, regulatory focus, and friendship intimacy differed between males and females (Fig. 2), we successively conducted a freely estimated model with no equality constraints across genders and an invariance model with path coefficients constrained to be equal across genders. Both the unconstrained model and the constrained model showed relatively reasonable fit to the data (unconstrained model: $\chi^2(160) = 370.67$, GFI = 0.90, TLI = 0.91, CFI = 0.93, RMSEA = 0.058, SRMR = 0.071; constrained model: $\chi^2(178) = 394.75$, GFI = 0.89, TLI = 0.92, CFI = 0.93, RMSEA = 0.055, SRMR = 0.071). The results evidenced no statistically significant differences between the unconstrained and constrained models ($\Delta\chi^2 = 24.08$, $\Delta df = 18$, $p = 0.15$), suggesting that the overall hypothesized model did not differ by gender.

Discussion

Research on the intimate relationship pathway and continuity in Western societies has indicated that quality parent–child relationships can transmit to healthy romantic relationships during emerging adulthood (e.g., Gray & Steinberg, 1999). The present study advances the literature in the following two ways: (a) two regulatory focuses (i.e., promotion and prevention focus) were suggested as mediators to explore the pathways through which different perceived parenting styles link to friendship intimacy; (b) examining these pathways in Chinese populations revealed cultural implications.

Consistent with previous studies (Batool & Lewis, 2020; Peleg & Harish, 2021; Rubin & Kelly, 2015), our results suggested that perceived authoritative parenting was directly associated with higher levels of friendship intimacy. Those who perceived clear parent–child communication and emotional support in their parent–child interactions were more likely to have a higher level of closeness with their best friends. In contrast, perceived authoritarian parenting had a negative association with friendship intimacy among

Chinese emerging adults. Consistent with findings among younger Chinese children (Zhao & Wang, 2010), Chinese adult children who experienced authoritarian parenting also encountered more difficulties establishing close friendships with their best friends due to their lack of experiences forming affectionate bonds with their strict and distant parents.

Additionally, as was the case for earlier findings (Gao et al., 2017), the results of this study indicated that PmRF was positively related to Chinese emerging adults' friendship intimacy. PmRF, being a motivation orientation of adopting approach strategies, is seen as a positive behavioral tendency that promotes positive emotions such as optimism and confidence (Gorman et al., 2012; Van Vianen et al., 2012). Individuals with PmRF tend to use positive measures, such as problem-solving strategies, which improves their ability to successfully solve conflicts with best friends, so they reported higher friendship satisfaction (Gao et al., 2017). In addition, PmRF brings an illusion of control over the outcome, which can buffer against the emotional consequences of failure experiences (Langens, 2007; Komissarouk & Nadler, 2014). Consistent with these lines of arguments, Chinese emerging adults with PmRF in this study were also more likely to perceive positivity and feel confident about their relationships with best friends, and reported higher levels of self-disclosure and open-mindedness in their friendship. Furthermore, in accordance with the study by Gao et al. (2017), PvRF was not directly associated with friendship intimacy. Although PvRF, a motivational tendency to employ avoidance strategies, is viewed as a relatively negative behavioral pattern (Zhang et al., 2019), people living in collectivistic societies may be predisposed to such mentality due to the significant emphasis on interdependence in their social relationships (Kurman & Hui, 2011). Individuals in collectivistic Chinese societies tend to prioritize the benefit of the group over the self, so that they are more oriented toward following obligations and responsibilities prescribed by society in order to maintain group harmony and cohesiveness. Therefore, PvRF may show relatively less negative function among the Chinese population. In addition, as suggested by Gao et al. (2017), the relation between PvRF and friendship intimacy may be indirect rather than direct, mediated through other potential factors such as conflict resolution strategies.

Our findings also verified the reported relation between parenting styles and regulatory focus in Keller's study (2008). The results showed that perceived authoritative parenting was positively associated with PmRF. Parents who rely on authoritative parenting tend to offer their children more support, along with clear guidance to help children self-govern and use their own ideas when making decisions, which is associated with developing children's independence and autonomy (Filus et al. (2019), Kocayörük

et al., 2015). The high degree of autonomy and independent self-construal enables children to pay more attention to their personal needs and goals and to deliberately take action to achieve their expectations (Hare et al., 2015; Soenens et al., 2017), which is consistent with the strategy demonstrated by PmRF (Komissarouk & Nadler, 2014). In contrast, perceived authoritarian parenting was positively associated with PvRF. Adult children with authoritarian parents may become more aware of the cost of failure and thus regulate themselves with avoidance strategies and adopt a prevention focus when facing challenges and obstacles in life. Authoritarian parenting is considered to be highly controlling and punitive. It discourages children's independence and individuality, which is not conducive to children's development of autonomy (McElhaney & Allen, 2012; Williams & Ciarrochi, 2020). Children with a low degree of autonomy tend to downplay their own needs and focus on the demands of others, which may lead to coping strategies that sustain the status quo to avoid failure consequences and disappointing others (Komissarouk & Nadler, 2014, Ryan et al., 2016). Such a cognitive tendency echoes a regulatory orientation toward prevention focus. Therefore, from responding to their authoritarian parents' high demands and low tolerance, Chinese adult children may establish a habitual pattern of inhibiting their voices and autonomy and overlooking their personal agency (Frieswijk & Hagedoorn, 2009; Komissarouk & Nadler, 2014). They may tend to concentrate on fulfilling the wishes and expectations from others (e.g., parents) and societies, which further contributes to their avoidance orientations toward actions that threaten their safety to avoid disappointments and punishment (Chen, 2015; Tang et al., 2018).

More importantly, our results showed that perceived authoritative parenting had an indirect, positive association with Chinese emerging adults' friendship intimacy through the mediating effect of PmRF. The autonomy support and emotional care adult children receive from their parents may have facilitated their tendency to place emphasis on self-needs and self-growth when pursuing their personal goals. Consequently, those adolescents subjected to authoritative parenting were inclined toward a self-enhancement perspective in interpreting life experiences with confidence and assurance, including their social experiences with friends. In turn, they were more likely to hold positive beliefs about their friendships and were more willing to engage in behaviors that nurtured their friendship during interactions, including sharing, self-disclosure, caring, and understanding. According to the theoretical framework of relational continuity (Gray & Steinberg, 1999), individuals' relationships with parents and their intimate relationships with others, including best friends and romantic partners, have shared continuity and similarities in terms of attachment patterns and characteristics through the development

of cognitive representations about self and relationship experiences. The findings of the present study empirically confirmed that adult children's perceived parenting, especially authoritative parenting, can positively contribute to their friendship intimacy through greater endorsement of PmRF.

Additionally, one unexpected finding was discovered—authoritative parenting also contributed positively to PvRF. In the current study, the relation between perceived authoritative parenting and PvRF may be explained by the culture-specific ethics valued in Chinese societies. Living in a Confucian culture in which filial piety is highly emphasized, Chinese children are encouraged not to let their parents down as an act conveying their love and gratitude to their parents (Oyserman et al., 2002; Bedford & Yeh, 2021). Those subjected to authoritative parenting may feel it is more urgent to satisfy their parents' wishes, due to the deeper emotional connections they perceive with their parents. For example, researchers found Chinese children have strong concern about achieving high academic performance to bring honor to their parents, which translates into a burden of being afraid of failing to fulfill parental expectations (Tan & Yates, 2011; Quach et al., 2015). The affection and care derived from children to their authoritative parents may also enable emerging adult children to create anxiety of “making their parents unhappy (or dishonor).” Therefore, driven by strong affection and a sense of responsibility to alleviate parents' worries or not to disappoint their parents, Chinese children with higher perceived authoritative parenting may also adopt PvRF to avoid consequences that may hurt their parents' feelings out of a fear of not carrying out the duties of being a good son or daughter, as prescribed by Confucian cultures.

Limitations

Some limitations inevitably existed in the current study. First, the data for this study were collected through convenience sampling based only on adult children in Taiwan. Previous literature has found varying degrees of endorsement in traditional Chinese cultural values (e.g., filial piety) across different Chinese regions, including Taiwan, mainland China, and Hong Kong (Yeh et al., 2013). Therefore, although Taiwan has regarded itself as genuinely inheriting traditional Chinese cultural values, our findings may still be limited in terms of the generalizability to the whole of Chinese society or even to other demographic groups. In future research, it may be interesting to expand data collection to different Chinese regions to promote sample comprehensiveness. Furthermore, studies could extend the investigation of the mechanism by which parenting contributes to friendship intimacy via its association with cognitive regulatory mindsets into other cultural contexts to

examine potential cultural differences. A second limitation was that the current study used cross-sectional data processed through SEM, which is not capable of identifying causal relationships between latent variables. Future studies could adopt experimental and longitudinal designs to further confirm the causal effects of these two types of regulatory focuses in mediating the associations between different parenting styles and children's friendship quality.

Additionally, inherent limitations result from the self-reported sampling utilized in the current study. Subjective bias may lead to imperfect representation of participants' authentic conditions, particularly for parenting involving the reciprocal interactions between parents and children. Therefore, parent-reported parenting styles should also be included in future studies to help create a more comprehensive understanding of parenting situations. Common-method bias is another limitation inherent in collecting data using only self-reported questionnaires. Researchers in the future could employ various techniques to assess the study variables, such as a daily diary approach to measure regulatory focus and friendship intimacy, which would enable researchers to observe the dynamic of participants' adoption of both regulatory focuses as well as its connection with their friendship intimacy. Furthermore, Chinese cultural values, such as filial piety and the collectivistic nature of family relationships, have been used to explain some specific associations demonstrated in the present study. However, the degree of individuals' endorsement of these traditional values was not examined in this study. Future research may consider adding these constructs into the research framework in order to discover sophisticated associations among parenting, regulatory focus, and friendship intimacy in the Chinese cultural context.

Implications

The current study advanced the literature by providing empirical evidence unmasking the process that perceived parenting is related to Chinese adult children's friendship intimacy through fostering the development of certain orientations in the appraisals of life experiences in general, i.e., regulatory focus. Some implications can be drawn based on the findings of the present study. Counselors and educators should emphasize the importance of Chinese emerging adults to adopt promotion focus rather than prevention focus, which may help their social competence in establishing intimacy and closeness with friends. Moreover, great attention should be paid to the way parents treat their children in parenting and how this may shape children's cognitive focus and interpretation of life experiences. For example, parents who are perceived as demanding and strict (authoritarian parenting) can link to adult children's endorsement of prevention focus in daily life. In addition,

our results further showed that parents with warmth and support (authoritative parenting) relate to Chinese emerging adult children's formation of promotion focuses, which in turn, makes positive contributions to their friendship intimacy. However, it should be noted that authoritative parenting could be a double-edged sword for emerging adults' formation of regulatory focus. In particular, those reared with authoritative parenting may also self-regulate with a prevention focus. Individuals who perceive their parents as authoritative may focus more on possible risky outcomes through a general inclination to avert failure because they tend to be excessively concerned about how their parents feel and are reluctant to let their parents down.

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References

- Anderson, A. R., & Fowers, B. J. (2020). An exploratory study of friendship characteristics and their relations with hedonic and eudaimonic well-being. *Journal of Social and Personal Relationships, 37*(1), 260–280.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480.
- Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives, 1*(2), 68–73.
- Barnhart, C. M., Raval, V. V., Jansari, A., & Raval, P. H. (2013). Perceptions of parenting style among college students in India and the United States. *Journal of Child and Family Studies, 22*(5), 684–693.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182.
- Batool, S. S., & Lewis, C. A. (2020). Does positive parenting predict pro-social behavior and friendship quality among adolescents? Emotional intelligence as a mediator. *Current Psychology, 1*–15.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence, 11*(1), 56–95.
- Baumrind, D. (2013). Authoritative parenting revisited: History and current status. In R. E. Larzelere, A. S. Morris, & A. W. Harrist (Eds.), *Authoritative parenting: Synthesizing nurturance and discipline for optimal child development* (pp. 11–34). American Psychological Association.
- Bedford, O., & Yeh, K. H. (2021). Evolution of the conceptualization of filial piety in the global context: From skin to skeleton. *Frontiers in Psychology, 12*, 995.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238–246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606.
- Bi, X., Yang, Y., Li, H., Wang, M., Zhang, W., & Deater-Deckard, K. (2018). Parenting styles and parent–adolescent relationships: The mediating roles of behavioral autonomy and parental authority. *Frontiers in Psychology, 9*, 2187.
- Boling, M. W., Barry, C. M., Kotchick, B. A., & Lowry, J. (2011). Relations among early adolescents' parent–adolescent attachment, perceived social competence, and friendship quality. *Psychological Reports, 109*(3), 819–841.
- Bowlby, J. (1969). *Attachment and loss: Attachment* (Vol. 1). Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Separation* (Vol. 2). Basic Books.
- Bowlby, J. (1980). *Attachment and Loss: Loss sadness and depression* (Vol. 3). Basic Books.
- Brassard, A., Perron-Laplante, J., Lachapelle, É., de Pierrepont, C., & Péloquin, K. (2018). Oversexualization among emerging adults: Preliminary associations with romantic attachment and intimacy. *The Canadian Journal of Human Sexuality, 27*(3), 235–247.
- Buri, J. R. (1991). Parental authority questionnaire. *Journal of Personality Assessment, 57*(1), 110–119.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge Academic.
- Caron, A., Lafontaine, M. F., Bureau, J. F., Levesque, C., & Johnson, S. M. (2012). Comparisons of close relationships: An evaluation of relationship quality and patterns of attachment to parents, friends, and romantic partners in young adults. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement, 44*(4), 245–256.
- Chan, K. W., & Chan, S. M. (2007). Hong Kong teacher education students' goal orientations and their relationship to perceived parenting styles. *Educational Psychology, 27*(2), 157–172.
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development, 65*(4), 1111–1119.
- Chen, W.-W. (2014). The relationship between perceived parenting style, filial piety, and life satisfaction in Hong Kong. *Journal of Family Psychology, 28*(3), 308–314.
- Chen, W.-W. (2015). The relations between perceived parenting styles and academic achievement in Hong Kong: The mediating role of students' goal orientations. *Learning and Individual Differences, 37*, 48–54.
- Chen, W.-W., & Wu, C.-W. (2021). The potential origins and consequences of Chinese youths' faith in love: Filial piety, implicit theories of romantic relationships, and intimacy. *Journal of Family Studies, 1*–12. <https://doi.org/10.1080/13229400.2021.1944276>.
- Chen, W.-W., Yuan, H., Yang, X., & Lai, S. K. (2020). Parenting, self-concept, and attitudes about romantic relationships. *Journal of Adolescence, 82*, 41–49.
- Chua, A. (2011, January 8). Why Chinese mothers are superior. *Wall Street Journal*. <http://online.wsj.com/article/SB10001424052748704111504576059713528698754>.
- Demir, M., Şimşek, Ö. F., & Procsal, A. D. (2013). I am so happy 'cause my best friend makes me feel unique: Friendship, personal sense of uniqueness and happiness. *Journal of Happiness Studies, 14*(4), 1201–1224.
- Dow, K. E., Wong, J., Jackson, C., & Leitch, R. A. (2008). A comparison of structural equation modeling approaches: The case of user acceptance of information systems. *The Journal of Computer Information Systems, 48*(4), 106–114.
- Eddington, K. M., Majestic, C., & Silvia, P. J. (2012). Contrasting regulatory focus and reinforcement sensitivity: A daily diary

- study of goal pursuit and emotion. *Personality and Individual Differences*, 53(3), 335–340.
- ELSamen, A. A. (2011). Examining the construct validity of the lockwood goal orientation scale using the general hierarchal model: An exploratory study. *Journal of Management Policy and Practice*, 12(4), 81–93.
- Endendijk, J. J., Groeneveld, M. G., Bakermans-Kranenburg, M. J., & Mesman, J. (2016). Gender-differentiated parenting revisited: Meta-analysis reveals very few differences in parental control of boys and girls. *PLoS ONE*, 11(7), e0159193.
- Fagan, J., Day, R., Lamb, M. E., & Cabrera, N. J. (2014). Should researchers conceptualize differently the dimensions of parenting for fathers and mothers? *Journal of Family Theory and Review*, 6(4), 390–405.
- Filus, A., Schwarz, B., Mylonas, K., Sam, D. L., & Boski, P. (2019). Parenting and late adolescents' well-being in Greece, Norway, Poland and Switzerland: Associations with individuation from parents. *Journal of Child and Family Studies*, 28(2), 560–576.
- Frieswijk, N., & Hagedoorn, M. (2009). Being needy versus being needed: The role of self-regulatory focus in the experience of breast cancer. *British Journal of Health Psychology*, 14(1), 69–81.
- Gao, Q., Bian, R., Liu, R., He, Y., & Oei, T.-P. (2017). Conflict resolution in Chinese adolescents' friendship: Links with regulatory focus and friendship satisfaction. *The Journal of Psychology*, 151(3), 268–281.
- Gomez, P., Borges, A., & Pechmann, C. C. (2013). Avoiding poor health or approaching good health: Does it matter? The conceptualization, measurement, and consequences of health regulatory focus. *Journal of Consumer Psychology*, 23(4), 451–463.
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. (2012). A meta-analysis of the regulatory focus nomological network: Work-related antecedents and consequences. *Journal of Vocational Behavior*, 80(1), 160–172.
- Gray, M. R., & Steinberg, L. (1999). Adolescent romance and the parent-child relationships: A contextual perspective. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 235–265). Cambridge University Press.
- Guo, X. (2015). Relationship between parenting style and peer problems: Theory of mind as a mediator and moderator. *Chinese Journal of Clinical Psychology*, 23(5), 786–790.
- Hare, A. L., Szwedo, D. E., Schad, M. M., & Allen, J. P. (2015). Undermining adolescent autonomy with parents and peers: The enduring implications of psychologically controlling parenting. *Journal of Research on Adolescence*, 25(4), 739–752.
- Hayes, A. F., & Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, 45(4), 627–660.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology*, 30(2), 1–46.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Huang, C. Y., Cheah, C. S., Lamb, M. E., & Zhou, N. (2017). Associations between parenting styles and perceived child effortful control within Chinese families in the United States, the United Kingdom, and Taiwan. *Journal of Cross-Cultural Psychology*, 48(6), 795–812.
- Huang, G. H. C., & Gove, M. (2015). Confucianism, Chinese families, and academic achievement: Exploring how Confucianism and Asian descendant parenting practices influence children's academic achievement. In M. S. Khine (Ed.), *Science education in East Asia* (pp. 41–66). Springer.
- Jia, H., Wang, Y., Ge, L., Shi, G., & Yao, S. (2012). Asymmetric effects of regulatory focus on expected desirability and feasibility of embracing self-service technologies. *Psychology and Marketing*, 29(4), 209–225.
- Juang, L. P., Qin, D. B., & Park, I. J. K. (2013). Deconstructing the myth of the “tiger mother”: An introduction to the special issue on tiger parenting, Asian-heritage families, and child/adolescent well-being. *Asian American Journal of Psychology*, 4(1), 1–6.
- Keller, J. (2008). On the development of regulatory focus: The role of parenting styles. *European Journal of Social Psychology*, 38(2), 354–364.
- Kim, H. J., Min, J. Y., Min, K. B., Lee, T. J., & Yoo, S. (2018). Relationship among family environment, self-control, friendship quality, and adolescents' smartphone addiction in South Korea: Findings from nationwide data. *PLoS ONE*, 13(2), e0190896.
- Kocayörük, E., Altıntaş, E., & İçbay, M. A. (2015). The perceived parental support, autonomous-self and well-being of adolescents: A cluster-analysis approach. *Journal of Child and Family Studies*, 24(6), 1819–1828.
- Kochendorfer, L. B., & Kerns, K. A. (2017). Perceptions of parent-child attachment relationships and friendship qualities: Predictors of romantic relationship involvement and quality in adolescence. *Journal of Youth and Adolescence*, 46(5), 1009–1021.
- Komissarouk, S., & Nadler, A. (2014). “I” seek autonomy, “we” rely on each other: Self-construal and regulatory focus as determinants of autonomy-and dependency-oriented help-seeking behavior. *Personality and Social Psychology Bulletin*, 40(6), 726–738.
- Koopmann, J., Lanaj, K., Bono, J., & Campana, K. (2016). Daily shifts in regulatory focus: The influence of work events and implications for employee well-being. *Journal of Organizational Behavior*, 37(8), 1293–1316.
- Kuo, T. Y. (2011). *Similar vs. complementary: The effect of regulatory fit in interpersonal domains* [Unpublished master's thesis]. National Taiwan University.
- Kurman, J., & Hui, C. (2011). Promotion, prevention or both: Regulatory focus and culture revisited. *Online Readings in Psychology and Culture*, 5(3), 1–16.
- Langens, T. A. (2007). Regulatory focus and illusions of control. *Personality and Social Psychology Bulletin*, 33(2), 226–237.
- Lee, E. H., Zhou, Q., Eisenberg, N., & Wang, Y. (2013). Bidirectional relations between temperament and parenting styles in Chinese children. *International Journal of Behavioral Development*, 37(1), 57–67.
- Li, X., Huang, C. Y. S., & Shen, A. C. T. (2019). Romantic involvement and adolescents' academic and psychosocial functioning in Chinese societies. *Children and Youth Services Review*, 96, 108–117.
- Li, Z. H., Connolly, J., Jiang, D., Pepler, D., & Craig, W. (2010). Adolescent romantic relationships in China and Canada: A cross-national comparison. *International Journal of Behavioral Development*, 34(2), 113–120.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9(2), 151–173.
- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive and negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83, 854–864.

- Luo, R., Tamis-LeMonda, C. S., & Song, L. (2013). Chinese parents' goals and practices in early childhood. *Early Childhood Research Quarterly*, 28(4), 843–857.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent–child interaction. In E. M. Hetherington (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (4th ed., pp. 1–101). Wiley.
- Marshall, T. C. (2008). Cultural differences in intimacy: The influence of gender-role ideology and individualism—collectivism. *Journal of Social and Personal Relationships*, 25(1), 143–168.
- Mastrotheodoros, S., Van der Graaff, J., Deković, M., Meeus, W. H., & Branje, S. J. (2019). Coming closer in adolescence: Convergence in mother, father, and adolescent reports of parenting. *Journal of Research on Adolescence*, 29(4), 846–862.
- McElhaney, K. B., & Allen, J. P. (2012). Sociocultural perspectives on adolescent autonomy. In P. Kerig, M. Shulz, & S. T. Hauser (Eds.), *Adolescence and beyond* (pp. 161–176). Oxford University Press.
- Miller, A. L., Lambert, A. D., & Speirs Neumeister, K. L. (2012). Parenting style, perfectionism, and creativity in high-ability and high-achieving young adults. *Journal for the Education of the Gifted*, 35(4), 344–365.
- Moore, R. L. (1998). Love and limerence with Chinese characteristics: Student romance in PRC. In V. C. de Munck (Ed.), *Romantic love and sexual behaviour: Perspectives from the social sciences* (pp. 251–283). Praeger.
- Moore, S. M., & Leung, C. (2001). Romantic beliefs, styles, and relationships among young people from Chinese, Southern European, and Anglo-Australian backgrounds. *Asian Journal of Social Psychology*, 4(1), 53–68.
- Newman, J., Gozu, H., Guan, S., Lee, J. E., Li, X., & Sasaki, Y. (2015). Relationship between maternal parenting style and high school achievement and self-esteem in China, Turkey and USA. *Journal of Comparative Family Studies*, 46(2), 265–288.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3–72.
- Peleg, O., & Harish, N. (2021). Can family patterns help adolescents establish intimate social relationships with peers? *The American Journal of Family Therapy*, 1–21. <https://doi.org/10.1080/01926187.2021.1909511>.
- Quach, A. S., Epstein, N. B., Riley, P. J., Falconier, M. K., & Fang, X. (2015). Effects of parental warmth and academic pressure on anxiety and depression symptoms in Chinese adolescents. *Journal of Child and Family Studies*, 24(1), 106–116.
- Raboteg-Saric, Z., & Sakic, M. (2014). Relations of parenting styles and friendship quality to self-esteem, life satisfaction and happiness in adolescents. *Applied Research in Quality of Life*, 9(3), 749–765.
- Reeve, J. (2015). *Understanding motivation and emotion* (6th ed.). John Wiley & Sons.
- Rubin, M., & Kelly, B. M. (2015). A cross-sectional investigation of parenting style and friendship as mediators of the relation between social class and mental health in a university community. *International Journal for Equity in Health*, 14(1), 1–11.
- Ryan, R. M., Deci, E. L., & Vansteenkiste, M. (2016). Autonomy and autonomy disturbance in self-development and psychopathology: Research on motivation, attachment, and clinical process. In D. Cicchetti (Ed.), *Developmental psychopathology* (3rd ed., pp. 385–438). Cambridge University Press.
- Schaefer, M. T., & Olson, D. H. (1981). Assessing intimacy: The PAIR inventory. *Journal of Marital and Family Therapy*, 7(1), 47–60.
- Schokker, M. C., Links, T. P., Luttik, M. L., & Hagedoorn, M. (2010). The association between regulatory focus and distress in patients with a chronic disease: The moderating role of partner support. *British Journal of Health Psychology*, 15(1), 63–78.
- Shek, D. T. (2002). The relation of parental quality to psychological well-being, school adjustment, and problem behavior in Chinese adolescents with economic disadvantage. *American Journal of Family Therapy*, 30, 215–230.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290–312.
- Soenens, B., Vansteenkiste, M., & Van Petegem, S. (2017). *Autonomy in adolescent development: Towards conceptual clarity*. Routledge.
- Sorkhabi, N. (2005). Applicability of Baumrind's parent typology to collective cultures: Analysis of cultural explanations of parent socialization effects. *International Journal of Behavioral Development*, 29(6), 552–563.
- Sorkhabi, N., & Mandara, J. (2013). Are the effects of Baumrind's parenting styles culturally specific or culturally equivalent? In R. E. Larzelere, A. S. Morris, & A. W. Harrist (Eds.), *Authoritative parenting: Synthesizing nurturance and discipline for optimal child development* (pp. 113–135). American Psychological Association.
- Summerville, A., & Roese, N. J. (2008). Self-report measures of individual differences in regulatory focus: A cautionary note. *Journal of Research in Personality*, 42(1), 247–254.
- Tan, J. B., & Yates, S. (2011). Academic expectations as sources of stress in Asian students. *Social Psychology of Education*, 14(3), 389–407.
- Tang, J., Li, N., Sandoval, J. R., & Liu, Y. (2018). Parenting styles and academic motivation: A sample from Chinese high schools. *Journal of Child and Family Studies*, 27(10), 3395–3401.
- Thériault, J., Otis, J., Hébert, M., Gurreri, S., & Lambert, J. (2019). Exploring the mediating and moderating roles of body-related concerns and social interactions on the association between early puberty and psychological distress in young adult women. *Canadian Journal of Public Health*, 110(5), 606–615.
- Van Vianen, A. E., Klehe, U. C., Koen, J., & Dries, N. (2012). Career adapt-abilities scale—Netherlands form: Psychometric properties and relationships to ability, personality, and regulatory focus. *Journal of Vocational Behavior*, 80(3), 716–724.
- Waters, T. E. A., Raby, K. L., Ruiz, S. K., Martin, J., & Roisman, G. I. (2018). Adult attachment representations and the quality of romantic and parent–child relationships: An examination of the contributions of coherence of discourse and secure base script knowledge. *Developmental Psychology*, 54(12), 2371–2381.
- Weijters, B., & Baumgartner, H. (2022). On the use of balanced item parceling to counter acquiescence bias in structural equation models. *Organizational Research Methods*, 25(1), 170–180.
- Williams, K. E., & Ciarrochi, J. (2020). Perceived parenting styles and values development: A longitudinal study of adolescents and emerging adults. *Journal of Research on Adolescence*, 30(2), 541–558.
- Wu, C.-W., Chen, W.-W., & Jen, C.-H. (2021). Emotional intelligence and cognitive flexibility in the relationship between parenting and subjective well-being. *Journal of Adult Development*, 28(2), 106–115.
- Xie, Q., Fan, W., Wong, P., & Cheung, F. M. (2016). Personality and parenting style as predictors of life satisfaction among Chinese secondary students. *The Asia-Pacific Education Researcher*, 25(3), 423–432.
- Xu, A., DeFraim, J., & Liu, W. (2016). *The Chinese family today*. Routledge.
- Yeh, K. H., Yi, C. C., Tsao, W. C., & Wan, P. S. (2013). Filial piety in contemporary Chinese societies: A comparative study of Taiwan, Hong Kong, and China. *International Sociology*, 28(3), 277–296.

- Zhai, Y., Liu, K., Zhang, L., Gao, H., Chen, Z., Du, S., Zhang, L., & Guo, Y. (2015). The relationship between post-traumatic symptoms, parenting style, and resilience among adolescents in Liaoning, China: A cross-sectional study. *PLoS ONE*, *10*(10), e0141102.
- Zhang, G., Liang, M., & Liang, Z. (2021). A longitudinal study of the influence of parenting styles on social adjustment of preschool children: Mediating effects of self-control. *Psychological Development and Education*, *37*(6), 800–807.
- 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*(5), 1117–1136.
- Zhang, Y., Zhang, Y., Ng, T. W., & Lam, S. S. (2019). Promotion- and prevention-focused coping: A meta-analytic examination of regulatory strategies in the work stress process. *Journal of Applied Psychology*, *104*(10), 1296–1323.
- Zhao, J., & Wang, M. (2010). Relationships among mother's parenting style and preschoolers' behavior problems, peer interaction. *Chinese Journal of Clinical Psychology*, *18*(5), 664–666.