Parenting profiles and adult children's internalizing and externalizing symptoms: the protective role of forgiveness

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Abstract
Early negative parenting practices have long been implicated in the etiology of internalizing and externalizing symptoms in adult children. Yet, little is known about how parenting behaviors would interact with adult children's forgiveness toward parents in the expression of internalizing and externalizing symptoms in adulthood. Understanding the interplay between parenting and forgiveness may be crucial for identifying refined treatments in psychosocial interventions for mental health problems. The study consisted of a sample of adults ($N = 287$, mean age = 24.17, 74.2% female), who completed questionnaires online about their perceived parenting behaviors in childhood/adolescence, forgiveness toward their parents, and current internalizing and externalizing symptoms. Approximately 75% of the sample reported hurt caused by parental injustice. Latent Profile Analysis (LPA) was used to derive maternal and paternal parenting profiles from two positive (warmth and behavioral control) and two negative (hostility and psychological control) parenting behaviors. Maternal parenting profiles and forgiveness toward mother were associated with adult children's internalizing and externalizing symptoms. Paternal parenting profiles were associated only with internalizing symptoms. However, adult children who experienced more positive paternal parenting had fewer externalizing symptoms compared to individuals who experienced more negative paternal parenting but only under conditions of high levels of forgiveness toward father. Results provide evidence that forgiveness toward parents may protect children from mental health issues, but also highlight the effects of paternal parenting on externalizing symptoms which may vary by individual differences in forgiveness.

Keywords Parenting · Forgiveness · Internalizing symptoms · Externalizing symptoms · Adult

Early negative parenting in childhood and adolescence has significant associations with an array of negative developmental consequences in adulthood, such as internalizing and externalizing problems (Aquilino & Supple, 2001; Steele & McKinney, 2019). Given that various parenting behaviors might be correlated (Zemp et al., 2014), parenting profiles based on the consideration of multiple dimensions may be helpful to assess parenting influences. Parenting could be categorized into positive and negative parenting dimensions, which are distinct but equally important to offspring's

mental health development (McKee et al., 2008). On the one hand, when dealing with hurt from negative parenting behaviors, forgiveness may be beneficial to children in adulthood as previous studies have suggested that forgiveness could protect children against negative parental behaviors (Kwok et al., 2017; Paleari et al., 2003). On the other hand, positive parenting and forgiveness could have an additive effect on adult children's well-being given the beneficial effects of forgiveness on psychosocial outcomes (Enright & Fitzgibbons, 2015). It is possible that higher forgiveness toward their parents might lead to less severe internalizing and externalizing outcomes in adulthood, and forgiveness toward parents may moderate the association between parenting practices and adult mental health. The current study used a retrospective design to explore the possible mechanisms underlying the association between parenting profiles during childhood and adolescence and adult psychopathology and whether this association would be moderated by forgiveness. Overall, this study may help to improve

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understanding of parenting and individual factors that contribute to internalizing and externalizing psychopathology, informing intervention approaches to reduce the prevalence of a wide range of psychiatric disorders.

Parenting Behaviors and Developmental Outcomes

Most studies have been focused on the effects of parenting on child or adolescent adjustment (Martinez et al., 2021), but there has been increased interest regarding the relationship between parenting behaviors during the parental socialization years and the adjustment of the adult-children (Candel, 2022; Gimenez-Serrano et al., 2022). For example, early negative parenting has been shown to increase the long-term risk for internalizing problems in adults, including depression and anxiety, and also is correlated with children's externalizing problems, including impulsivity, rule breaking, aggressiveness, and related issues (Eaton et al., 2015). On the other hand, positive parenting such as parental support and behavioral control has been demonstrated to predict lower levels of internalizing and externalizing symptoms among young adults (Aquilino & Supple, 2001; Roche et al., 2008). There are, however, inconsistent findings regarding whether positive parenting is predictive of children's behavior problems (Essau et al., 2006; Shelton et al., 1996). One possible reason is that various parenting behaviors might be correlated, and the effects of one type of parenting behavior may be dependent on other parenting behaviors (Zemp et al., 2014). Thus, it may be more useful to consider constellations of various parenting aspects. Some studies that use cluster analysis found various parenting clusters that can differentially affect children's self-concept, locus of control, depression, anxiety, impulsivity, and other important developmental outcomes (Berge et al., 2010; Nelson et al., 2011). In addition, Borden et al. (2014) used latent profile analysis and concluded that children might display more externalizing behaviors if their mothers had negative parenting profiles.

Compared with cluster analysis, the latent profile analysis method may allow for a more flexible framework as it allows subsequent mediation analysis, but there is no consensus on what parenting factors should be included in the profile analysis. Nevertheless, four types of parenting behaviors are most commonly studied: behavioral control, psychological control, warmth, and hostility (McKee et al., 2008; Pinquart, 2017a). Parenting profiles based on these four dimensions may provide rich information about parenting. First, parental control could be positive and negative. For instance, behavioral control, which has been defined as parental monitoring and limit setting, is associated with fewer conduct problems (Barber et al., 1994), whereas psychological control, which is defined in terms of the manipulation and intrusion of

children's emotional and cognitive worlds, has been associated with more internalizing and externalizing problems (Galambos et al., 2003; Pinquart, 2017b). Second, warmth and hostility could be conceptualized as separate dimensions, as parents' hostility is not merely a lack of warmth but also includes behaviors such as criticizing, accusing, ridiculing, rejecting, and nagging (McKee et al., 2008). However, limited studies have examined parenting profiles based on these four dimensions.

Some research combined maternal and paternal behavior into an aggregated parenting construct (Galambos et al., 2003; Ryan & Ollendick, 2018), but the unique effects of mothering and fathering on child mental health have not been clear yet (van der Sluis et al., 2015). In addition, previous research mainly focused on maternal parenting or assumed that fathers may have the same effects on offspring outcomes as mothers (Simons & Conger, 2007). However, there were some inconsistent findings. For example, some studies showed that maternal parenting was more strongly associated with offspring's internalizing and externalizing problems than paternal parenting (Flouri, 2010; Rothbaum & Weisz, 1994), whereas some studies found that only paternal warmth rather than maternal warmth related to lower levels of internalizing symptoms of children (Mattanah, 2001) and lower levels of paternal involvement was more strongly correlated with adolescent's externalizing symptoms than maternal involvement (Harris et al., 1998). Moreover, although research has highlighted how critical fathers can be, the role of paternal parenting behavior is still largely neglected in research on children's well-being (Yap & Jorm, 2015). Investigating maternal and paternal parenting separately may contribute to engaging more fathers in parenting intervention programs, leading to a more holistic parenting interventions addressing wider aspects of parenting roles that impact child mental development (Panter-Brick et al., 2014).

The Protective Role of Forgiveness Between Parenting Behaviors and Adult Mental Health

Forgiveness is the willful giving up of resentment in the face of another's injustice while responding with benevolence to the offender, even if the offender does not deserve the forgiver's moral goodness (Baskin & Enright, 2004), which has been shown to be associated with improved mental health and well-being (Enright & Fitzgibbons, 2015; Toussaint & Friedman, 2009). Forgiveness also may contribute to less internalizing and externalizing symptoms among adults. For instance, Orcutt (2006) stated that offense-specific forgiveness toward an offender was significantly negatively related to internalizing symptoms for female undergraduate students. The forgiveness of others also was found to

be associated with lower levels of a variety of forms of aggression among college students (Webb et al., 2012). The protective effect of forgiveness in reducing anger, anxiety, and depression also has been demonstrated by a variety of intervention and education programs across various cultural backgrounds and diverse populations (Enright & Fitzgibbons, 2015; Ghobari Bonab et al., 2021; Haroon, et al., 2021; Rapp, et al., 2022; Yu et al., 2021).

Research has indicated that closer relationships bring greater hurt from transgressions and more motivation to maintain the relationship (Gold & Davis, 2005). Therefore, relational context may be indispensable in the domain of forgiveness theory, and more research is needed to examine the role of forgiveness within the family context. Forgiveness or unforgiveness toward the parents may have important impacts on developmental outcomes in children. For example, Rivera and Fincham (2015) found that emerging adults who had experienced maternal violence had lower forgiveness toward their mother, which subsequently predicted greater dating violence. In addition, preschoolers' dispositional forgiveness was found to moderate the predictive effect of parental aggression on preschoolers' anxiety symptoms (Kwok et al., 2017). Paleari et al (2003) also suggest that higher forgiveness during adolescence could prevent the negative effects of parent–child conflict. Furthermore, harsh parenting was moderated by a tendency to forgive in relation to emotionally dysregulation in Chinese adolescents (Wang & Qi, 2017), suggesting that forgiveness may moderate the associations between parenting and adult children's mental health and protect adult children against negative parental practices. Although the moderating effects of forgiveness toward parents are not clear between positive parenting and adult children's well-being, it is possible that these two protective factors could foster a more harmonious family environment, reducing the risk of mental problems in adulthood (Odgers et al., 2012; Sanders et al., 2014). Therefore, forgiveness toward parents may also interact with positive parenting and enhance its positive impact. Furthermore, it is important to note that previous research also has indicated that adolescent motivations for forgiving each parent differ (Christensen et al., 2011; Hoyt et al., 2005). Thus, adult children's forgiveness toward mother and father may need to be examined separately.

Current Study

In the current study, we used a retrospective design to collect data from adults to address the questions of whether maternal and paternal parenting during childhood and adolescence may have unique relations with adult children's internalizing and externalizing problems, and whether adult children's forgiveness towards their mother and father would protect children against negative parenting. In contrast to a variable-centered approach to studying parenting, latent profile analysis (LPA) was used to empirically derive classes of parenting behaviors from parental warmth, hostility, behavioral control, and psychological control. First, it is hypothesized that there might be two types of parenting profiles: one characterized by high positive parenting, and another characterized by high negative parenting. Our second hypothesis was that children with negative maternal/paternal parenting profiles may experience more internalizing and externalizing symptoms. Third, it is hypothesized that higher levels of children's forgiveness toward mother/father may be associated with less internalizing and externalizing symptoms. Lastly, we tested our hypotheses, in an exploratory way, for the possible interaction effects of parenting and forgiveness on adult children's internalizing and externalizing symptoms. According to the self-determination theory (SDT) (Ryan & Deci, 2000), parenting that satisfied or frustrated offspring's autonomy, competence, and relatedness needs could positively or negatively impact offspring's mental health. Additionally, forgiveness toward parents may foster offspring's own needs satisfaction with improved self-regulation (Ho et al., 2020), which may interact with previous parenting and jointly influence adult children's mental health. We expect that the current study will enrich the SDT by highlighting the critical role of offspring's own characteristics (i.e., forgiveness) play in the relations between parenting and psychological development.

Method

Participants

The sample consisted of 70 (24.4%) male, 213 female (74.2%), and 4 (1.4%) participants who chose "other" or choose "prefer not to answer" regarding gender. The ages of the participants ranged from 18 to 61 years, with the mean age of 24.17 years ($S.D. = 8.22$). Among participants, 67.6% were White, 9.4% were African American, 9.4% were Asian, 6.6% were Latino or Hispanic, 0.6% were native American, and 4.2% were multiracial Americans. The sample was well-educated (79.8% held at lease some college education) and 64.1% had gross household income of more than $35,000. When participants were in childhood and adolescence, approximately 96.9% lived with their mother and father (including step-mother and step-father). Based on divisions used in life-span development literature (Arnett, 2007), there could be two age groups in the current sample: 213 (74.2%) emerging adults aged 18–25 years, and 74 (25.8%) young and middle-aged adults aged 26–61 years. No significant differences for gender and race among the two age groups emerged ($c^2(1) = 0.21$, $p > 0.05$ and $c^2(7) = 9.18$, $p > 0.05$, respectively).

Procedures

Participants were recruited through online websites (i.e., PollPool, Psychological Research on the Net, and a university's SONA system in Midwest United States). Data collection occurred during the period of November 2020 to January 2021. Participants who were between 18 and 65 years old and understood English could complete an online survey via the Qualtrics platform, a secure online survey system. The survey was anonymous. Informed consent was obtained electronically before participants completed the questionnaires. Ethical approval was obtained by the university institutional review board. A total of 409 people participated in the survey, however, 116 (28.36%) of the questionnaires were not fully completed or were filled out by participants outside the age range. In addition, 6 (1.46%) participants gave inconsistent answers to the consistency check in which we repeated items already presented in the questionnaire. Those responses were eliminated from the survey, and a total of 287 responses were suitable for inclusion in the analysis.

Measures

Parental Bonding Instrument (PBI) (Parker et al., 1979). The PBI is a self-reported measure developed to measure perceived maternal and paternal parenting behaviors, which has two subscales: Overprotection and Care. The Care subscale measures parental affection and warmth and was used in the current study to measure parental warmth when participants were in childhood and adolescence. The subscale has 12 items, such as "My mother/father spoke to me in a warm and friendly voice". Each of the items was rated on a 4-point Likert scale with 0 = *very unlikely*, and 3 = *very likely*. Scores ranged from 0 to 36, with a higher score reflecting a higher level of parental warmth. The PBI has demonstrated high internal consistency, adequate test–retest reliability, and high construct validity in correlation with other measures of parental behavior (Safford et al., 2007). In the current study, the Cronbach's alpha was 0.71 for the father and 0.58 for the mother.

Parent–Child Conflict Tactics Scales Short Form (CTSPCS) (Straus & Mattingly, 2007) The CTSPCS consists of five different subscales: Corporal Punishment (2 items), Physical Abuse (2 items), Psychological Aggression (2 items), Nonviolent Discipline (2 items), and Neglect (2items). Corporal Punishment (i.e., "My mother/father spanked me on the bottom with her/his bare hand.), Physical Abuse (i.e., "My mother/father threw or knocked me down"), and Psychological Aggression (i.e., "My mother/father shouted, yelled, or screamed at me") were used in the current study to measure hostile parenting when participants were in childhood and adolescence. Items were rated on a 5-point Likert scale with 0 = *never*, and 4 = *very often*. Scores ranged from 0 to 24, with a higher score indicating a higher level of hostile parenting. The full form of CTSPCS has demonstrated moderate internal consistency and also has shown excellent concurrent and construct validity (Straus & Mattingly, 2007). The scale had excellent internal consistency in the present sample (Cronbach's alpha = 0.84 for the father and 0.85 for the mother).

Monitoring Scale (MON) (Shek, 2005). The MON was used to measure the parental surveillance and behavioral control of the child's behaviors during childhood and adolescence, which has 7 items, such as "My mother/father usually checked my homework". Items were rated on a 6-point Likert scale, where 1 = *strongly disagree*, and 6 = *strongly agree*. Scores ranged from 7 to 42, and a higher score indicates a higher level of behavioral control. The MON has demonstrated good construct validity and reliability (Shek, 2005, 2007). In the current study, the Cronbach's alpha was 0.75 for the paternal MON and 0.75 for the maternal MON.

Psychological Control Scale (PSY) (Shek, 2005) The PSY contains 10 items and measures parental manipulation and guilt-inducing control tactics (i.e., "When my mother/father criticized me she/he always mentioned my past mistakes"), as well as withdrawal of affection (i.e., "When my views were different from those of my mother/father she/he reduced her/his friendliness to me" when participants were in childhood and adolescence. Items were rated on a 6-point Likert scale, where 1 = *strongly disagree*, and 6 = *strongly agree*. Scores ranged from 10 to 60, with a higher score reflecting a higher level of psychological control. The PSY has demonstrated good construct validity and reliability (Shek, 2005, 2007). The scale had excellent internal consistency in the present sample (Cronbach's alpha = 0.96 for both maternal and paternal forms).

Enright Forgiveness Inventory-30 (EFI-30) (Enright et al., 2021) The EFI-30 was used to assess the degree to which people forgive their parents for an unfair and hurtful deed inflicted on individuals. Participants were first asked by questions to briefly describe one hurtful maternal or paternal behavior that happened in their first 16 years via a maternal form and a paternal form separately. The EFI-30 consists of 30 items with three subscales, which assesses an individual's affect, cognition, and behavior toward the mother or father after the hurtful deed (i.e., "I feel warm toward him"; "I do or would avoid him"; "I think he is horrible"). Items were rated on a 6-point Likert scale, where 1 = *strongly disagree*, and 6 = *strongly agree*. Total scores ranged from 30 to 180, with higher scores reflecting a higher level of forgiveness. This measure has demonstrated excellent concurrent validity and internal consistency reliability (Enright et al., 2021). The scale had excellent internal consistency in the present sample (Cronbach's alpha = 0.99 for both maternal and paternal forms).

Depression Anxiety Stress Scale-21 (DASS-21) (Lovibond & Lovibond, 1995). The DASS-21 was used to measure internalizing symptoms. It is a self-reported scale, which

comprises 21 items that measures the degree to which participants have experienced negative emotional symptoms over the past week regarding three dimensions: depression (i.e., "I felt that life was meaningless"); anxiety (i.e., "I was aware of dryness of my mouth"), and stress (i.e., "I felt I was rather touchy"). Items were rated on a 4-point Likert scale, where 0 = *did not apply to me at all*, and 3 = *applied to me very much, or most of the time*. Total scores range from 0 to 63, with a higher score indicating a higher level of internalizing symptoms. The DASS-21 has demonstrated high internal consistency reliability for adults of the general population and good construct validity across cultures (Oei et al., 2013). The scale had excellent internal consistency in the present sample (Cronbach's alpha = 0.94).

Externalizing Spectrum Inventory-Brief Form (ESI-BF) (Patrick et al., 2013). The ESI-BF is a self-reported measure that comprises 160 items, which contains three higher order domains (general disinhibition, substance abuse, and callous aggression) and 23 lower order factors. The current study used general disinhibition and callous-aggression domains to measure externalizing symptoms. The general disinhibition domain consists of 20 items assessing problematic impulsivity, theft, fraud, irresponsibility, impatient urgency, dependability, alienation, and boredom proneness (i.e., "I have had problems at work because I was irresponsible"). The callous-aggression domain contains 19 items assessing empathy, honesty, relational aggression, excitement seeking, and physical/destructive aggression (i.e., "I enjoy pushing people around sometimes"). Items were rated on a 4-point Likert scale, where 0 = *false*, and 3 = *true*. The total scores of two subscales range from 0 to 117, with a higher score indicating a higher level of externalizing symptoms. The two subscales have demonstrated high internal consistency in adults and excellent congruent validity with personality traits (Patrick et al., 2013). The scale had good internal consistency in the present sample (Cronbach's alpha = 0.89).

Data Analysis

As participants were asked to recall a story when they were hurt unfairly by their mother/father before filling out the *Enright Forgiveness Inventory-30* (EFI-30) (Enright et al., 2021), first, these stories were coded by 2–3 independent researchers/raters for whether the participants experienced injustice from mother/father, type of injustice, and severity of the injustice. More coding details can be seen in the supplemental materials. Second, latent profile analysis (LPA) was used to empirically derive classes of parenting behaviors for mother and father based on two positive dimensions (warmth and behavioral control) and two negative dimensions (hostile parenting and psychological control). Third, regression analysis was used to separately test the

effects of maternal and paternal parenting and forgiveness toward mother and father on adult children's internalizing and externalizing symptoms, and their interactive effects on internalizing and externalizing symptoms in offspring. Data were analyzed using *R version 4.0.3* (R Core Team, 2020), package *tidyLPA* (Rosenberg et al., 2019), and the package *ggplot*, version 3.2.1 (Wickham et al., 2016). Prior sample size calculation and post hoc power analysis were conducted using G*Power 3.1.9.6. The minimum sample size necessary for the current study is 98 participants to achieve a power of 0.80 and a medium size effect of 0.15 with α equal to 0.05 (Faul et al., 2007). The current study obtained data from 287 participants, which exceeded the required sample size. A post hoc power analysis also suggested that the sample size was sufficient to provide robust power that was approximately 1.00, for multiple linear regression models with effect sizes ranged from to 0.12 to 0.25, a critical α of 0.05, and 6 predictors (including covariates).

Results

Preliminary Analyses

Based on the qualitative analysis, 183 participants (63.8%) reported that they experienced injustice from mothers, and a similar percentage (64.5%) of respondents reported injustices from their fathers. In addition, 152 participants (53.0%) that they reported experiencing injustice from both parents, and 64 participants (22.3%) reported experiencing injustice from only one parent. Overall, approximately 75% of participants reported hurt from parental injustice. Eight categories of injustice reported by participants for both mother and father emerged, which are physical aggression, psychological aggression, psychological control, indirect/secondary hurt, absence, detachment, maltreatment, and over-controlling/helicopter parenting. Psychological aggression (defined as yelling or criticizing in a loud and hard manner) is the most prominently reported offense for both the mother and the father (35.9% and 32.1%, respectively). The severity of injustice impact was coded from 1 to 5 (1 = mild, 2 = in-between mild and moderate, 3 = moderate, 4 = in-between moderate and severe, 5 = severe). Twenty-four (8.36%) experienced severe injustice from mothers and 21 (7.3%) participants experienced severe injustice from fathers. More descriptive results can be seen in the supplemental materials.

Participants who experienced injustice from their mother or father had significantly higher levels of internalizing symptoms than those who did not ($t(251) = 2.67$, $p < 0.01$ and t(252) = 4.90, $p < 0.001$, respectively). No significant differences in externalizing symptoms were found between participants who experienced injustice from their mother/father and participants who did not ($t(253) = 0.66$,

$p = 0.509$ and $t(254) = 0.48$, $p = 0.630$, respectively). Participants' severity level of the injustice of mother was not associated with internalizing and externalizing symptoms ($F(4,159) = 1.94$, $p = 0.107$ and $F(4,159) = 0.23$, $p = 0.924$, respectively). No significant differences for internalizing and externalizing symptoms among the severity levels of the injustice of father emerged ($F(4,164) = 0.61$, $p = 0.655$ and $F(4,161) = 0.61$, $p = 0.656$, respectively).

Table 1 presents the sample sizes, means, standard deviations, and bivariate correlations of the primary study variables. All maternal parenting behaviors were positively correlated with corresponding paternal parenting behaviors (r's = 0.41 –0.52, p's < 0.001). Adult children's forgiveness toward mother was positively correlated with maternal warmth ($r = 0.19$, $p < 0.001$) and behavioral control ($r = 0.53$, p's < 0.001). In addition, forgiveness toward mother was negatively correlated with maternal psychological control ($r = -0.67$, $p < 0.001$) and hostility ($r = -0.43$, $p < 0.001$). Forgiveness toward father also was correlated positively with positive paternal parenting ($r = 0.15$, $p < 0.05$ and $r = 0.49$, $p < 0.001$ for warmth and behavioral control, respectively) and negatively correlated with negative paternal parenting ($r = -0.69$, $p < 0.001$ and $r = -0.51$, $p < 0.001$ for psychological control and hostility, respectively). Adult children's internalizing and externalizing symptoms were negatively correlated with their forgiveness toward their mother and father (r's = -0.26 – -0.35, p's < 0.001).

Latent Profile Analysis (LPA) of Maternal and Paternal Parenting Dimensions

Via LPA, the current study tested one-, two-, three-, and four-class models using four parenting dimensions (warmth, behavioral control, hostility, and psychological control) to determine the optimal number of classes for maternal parenting and paternal parenting separately. To examine model fit to the data, BIC (Bayesian Information Criterion), SABIC (sample size adjusted BIC), and entropy were used. Additionally, BLRT (parametric bootstrap method for loglikelihood difference test) was used to test whether the selected model was better than the model with one less class. The two-class solution seemed to be the optimal fit for both maternal and paternal parenting. Fit indices and how to decide the final models can be seen in the supplemental material.

Figure 1 summarizes the characteristics of the two identified latent classes for maternal parenting. The Negative Only class had lower warmth and behavioral control scores with higher hostility and psychological control scores, which included 46.7% of the sample (n = 134). The Positive Only class (53.3%; n = 153) had higher warmth and behavioral control scores and lower hostility and psychological control scores. Figure 2 summarizes the characteristics of the two identified latent classes for paternal parenting. The two classes also were labeled Negative Only (40.1%; n = 115) and Positive Only (59.9%; n = 172), which showed similar patterns as the maternal parenting profiles.

Parenting Profiles, Forgiveness, and Their Interactions on Internalizing Symptoms

Adult children's age, gender, gross household income (dummy coded where "Less than $25,000" was the reference category), and personal educational attainment (dummy coded in which "8th grade or less" was the reference category) were included as covariates in each of the models predicting internalizing symptoms. This model accounted for 5.7% of the total variance in adult children's

Table 1 Descriptive Statistics and Bivariate Correlations

	n	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. M_Warmth	255	16.56	2.74	-											
2. F_Warmth	257	16.17	3.26	.41**	-										
3. M_Psychological Control	252	27.51	14.23	-.24**	-.09	-									
4. F_Psychological Control	259	24.78	13.80	-.07	-.09	.49**	-								
5. M_Behavioral Control	275	27.73	7.11	.17**	.09	-.45**	-.21**	-							
6. F_Behavioral Control	261	24.06	7.09	0.10	.07	-.33**	-.39**	.52**	-						
7. M_Hostility	282	6.61	5.39	-.13*	-.15*	.63**	.34**	-.24**	-.26**	-					
8. F_Hostility	269	5.77	5.12	-.01	-.10	.30**	.57**	-.13*	-.29**	.50**	-				
9. Forgiveness toward M	267	153.15	31.79	.19**	.16*	-.67**	-.39**	.53**	.28**	-.43**	-.32**	-			
10. Forgiveness toward F	247	150.49	34.29	.05	.15*	-.37**	-.69**	.21**	.49**	-.25**	-.51**	.57**	-		
11. Internalizing	255	20.44	14.12	.02	-.07	.34**	.34**	-.09	-.14*	.36**	.24**	-.32**	-.30**	-	
12. Externalizing	257	20.12	13.85	-.04	.02	.26**	.24**	-.17**	-.11	.24**	.23**	-.35**	-.26**	.43**	-

M = Mother; F = Father. *p < .05, **p < .01, ***p < .001
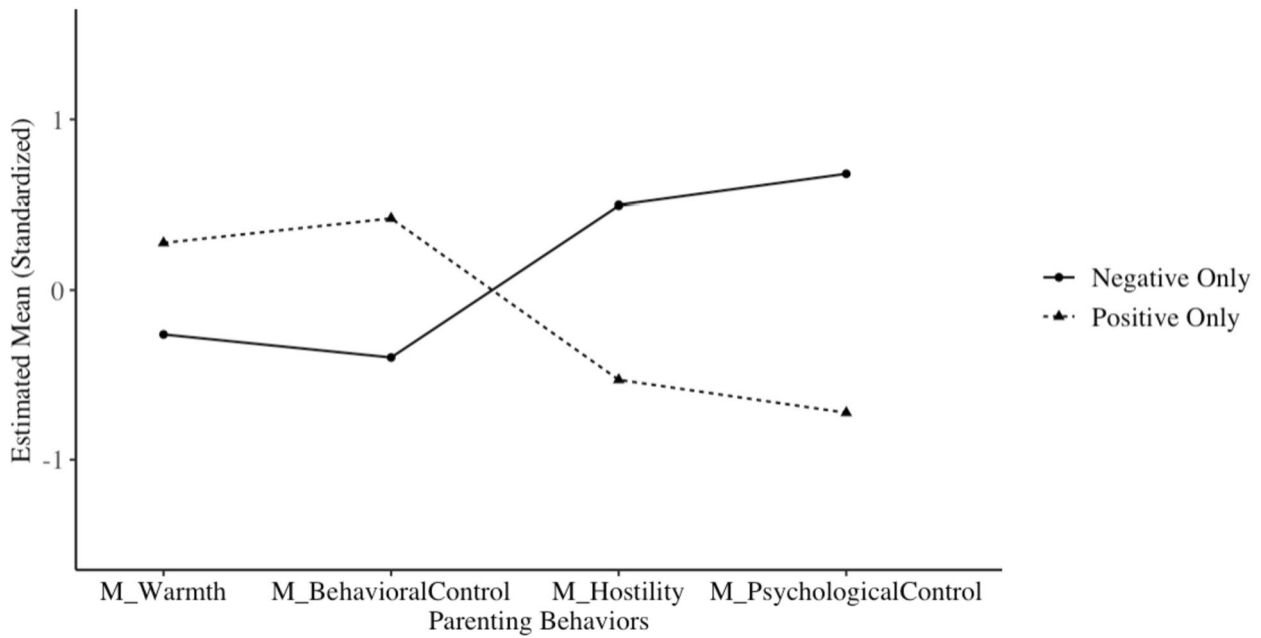
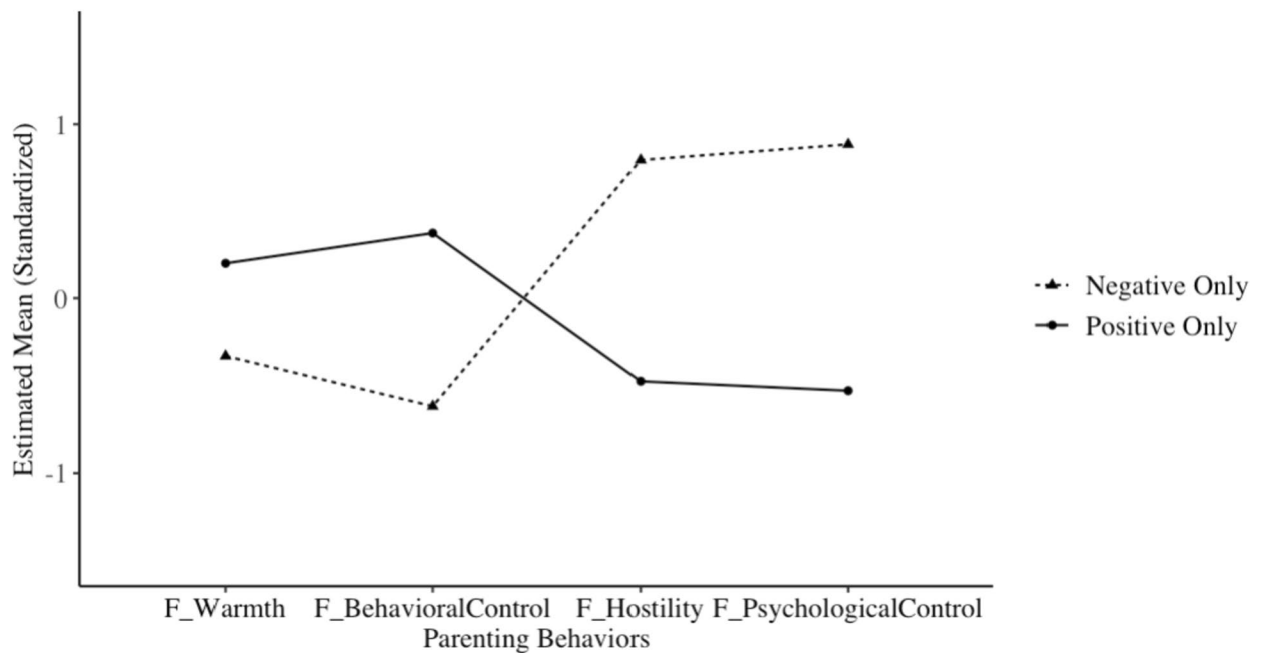**Fig. 1** Maternal Parenting Behaviors of Identified Classes. *Note*. M = Mother

Fig. 2 Paternal Parenting Behaviors of Identified Classes. *Note*. F = Father

internalizing symptoms. Additional details can be found in the supplemental materials.

Model 1 examined the association between maternal parenting profiles and forgiveness toward mother for internalizing symptoms, controlling for all covariates (Table 2). Maternal parenting profile was significantly associated with adult children's internalizing symptoms

($b = 5.71$, $p < 0.01$), indicating people who experienced Negative Only maternal parenting tended to have higher levels of internalizing problems. In addition, forgiveness toward mother was negatively associated with internalizing symptoms ($b = -0.08$, $p < 0.05$). This model explained 15.7% of the total variance in internalizing symptoms. Model 2 examined the interactive effects of maternal

Table 2 Regressions of Associations Between Parenting Profile, Forgiveness toward Parents and Internalizing Symptoms

		b	s.e	p-value	95% CI		R²
					Lower	Upper	
Model 1	M_Negative Only profile	5.98	2.10	.005	1.84	10.12	0.16
	Forgiveness toward M	-0.08	0.03	.013	-0.15	-0.02	
Model 2	M_Negative Only profile	22.71	14.81	.126	-6.47	51.89	0.16
	Forgiveness toward M	0.00	0.08	.992	-0.16	0.16	
	M_Negative Only profile x Forgiveness toward M	-0.10	0.09	.255	-0.28	0.07	
Model 3	F_Negative Only profile	5.25	2.32	.025	0.66	9.83	0.11
	Forgiveness toward F	-0.04	0.03	.196	-0.11	0.02	
Model 4	F_Negative Only profile	-6.36	11.26	.573	-28.55	15.83	0.12
	Forgiveness toward F	-0.10	0.06	.109	-0.21	0.02	
	F_Negative Only profile x Forgiveness toward F	0.08	0.07	.293	-0.07	0.22	

M = Mother; F = Father; CI = confidence interval

parenting and forgiveness toward mother, but no interaction between maternal parenting and forgiveness toward mother was detected (see Table 2).

Model 3 tested the association between paternal parenting profiles and forgiveness toward father for internalizing symptoms, controlling for all covariates (Table 2). Paternal parenting profile was significantly associated with adult children's internalizing symptoms ($b = 5.25$, $p < 0.05$), indicating people who experienced Negative Only paternal parenting tended to have higher levels of internalizing problems. However, forgiveness toward father was not significantly associated with internalizing symptoms. This model explained 11.4% of the total variance in internalizing symptoms. No significant interaction between paternal parenting profiles and forgiveness toward father was detected (see Model 4 in Table 2).

Parenting Profiles, Forgiveness, and Their Interactions on Externalizing Symptoms

Consistent with previous models, adult children's age, gender, gross household income, and personal educational attainment were included as covariates in each of the models predicting externalizing symptoms. This model accounted for 8.2% of the total variance in adult children's externalizing symptoms. Additional details can be found in the supplemental materials.

Model 5 examined the association between maternal parenting profiles and forgiveness toward mother for externalizing symptoms, controlling for all covariates (Table 3). Consistent with Model 1, maternal parenting profiles were significantly associated with adult children's externalizing symptoms ($b = 5.782$, $p < 0.01$), indicating people who experienced Negative Only maternal parenting tended to have

Table 3 Regressions of Associations Between Parenting Profile, Forgiveness toward Parents and Externalizing Symptoms

		b	s.e	p-value	95% CI		R²
					Lower	Upper	
Model 5	M_Negative Only profile	5.78	2.06	.005	1.72	9.85	0.20
	Forgiveness toward M	-0.10	0.03	.004	-0.16	-0.03	
Model 6	M_Negative Only profile	-5.29	14.35	.713	-33.56	22.98	0.20
	Forgiveness toward M	-0.15	0.08	.053	-0.31	0.00	
	M_Negative Only profile x Forgiveness toward M	0.07	0.09	.436	-0.10	0.24	
Model 7	F_Negative Only profile	1.86	2.13	.382	-2.33	6.05	0.15
	Forgiveness toward F	-0.08	0.03	.015	-0.14	-0.02	
Model 8	F_Negative Only profile	-19.34	10.24	.060	-39.52	0.83	0.17
	Forgiveness toward F	-0.17	0.05	.002	-0.28	-0.06	
	F_Negative Only profile x Forgiveness toward F	0.14	0.07	.035	0.01	0.27	

M = Mother; F = Father; CI = confidence interval

higher levels of externalizing problems. In addition, forgiveness toward mother was negatively associated with externalizing symptoms ($b = -0.10$, $p < 0.05$). This model explained 20.0% of the total variance in externalizing symptoms. Yet, when the interactive effects of maternal parenting and forgiveness toward mother were examined, no interaction between maternal parenting and forgiveness was detected (see Model 6 in Table 3).

Model 7 tested the association between paternal parenting profiles and forgiveness toward father for externalizing symptoms, controlling for all covariates (Table 3). No association was detected between paternal parenting profiles and adult children's externalizing symptoms. Forgiveness toward father, however, was significantly associated with externalizing symptoms ($b = -0.08$, $p < 0.05$). This model explained 15.4% of the total variance in externalizing symptoms. Model 8 examined the interactive effects of paternal parenting profiles and forgiveness toward father. The interaction between paternal parenting and forgiveness toward father was significant ($b = 0.14$, $p < 0.05$) (Table 3). Furthermore, a post hoc margins test of the interaction revealed that there were no differences in externalizing symptoms between different parenting profile groups at the low end and middle end of the forgiveness (i.e., total forgiveness score $< = 160$) (see Fig. 3). Nevertheless, significant difference between the paternal Negative Only and paternal Positive Only groups was only observed at the highest end of the forgiveness (the total forgiveness score $= 180$), whereby adult children with paternal Positive Only parenting had

significantly lower levels of externalizing symptoms relative to children with paternal Negative Only parenting ($t(216) = -2.07$, $p < 0.05$). The interaction model explained 16.8% of the variance in adult children's externalizing symptoms.

Discussion

We identified maternal and paternal parenting profiles in childhood and adolescence using a well-characterized sample of adults. Approximately 75% of the sample reported hurt caused by parental injustice. Two types of parenting profiles for both mother and father were found, which were Positive Only (high warmth and behavioral control, low hostility and psychological control) and Negative Only (low warmth and behavioral control, high hostility and psychological control). Both maternal and paternal parenting profiles showed that positive and negative parenting behaviors might be highly correlated, suggesting that parenting factors or dimensions may have an overlap and could work together as one system (Dwairy et al., 2013), which justified using latent profiles of parenting behaviors in the current study.

Additionally, we found support for the hypothesis that maternal/paternal parenting profiles and adult children's forgiveness toward their parents may have unique effects on internalizing symptoms and externalizing symptoms in adult children. Although the forgiveness toward mother/father did not moderate the associations between parenting profiles and
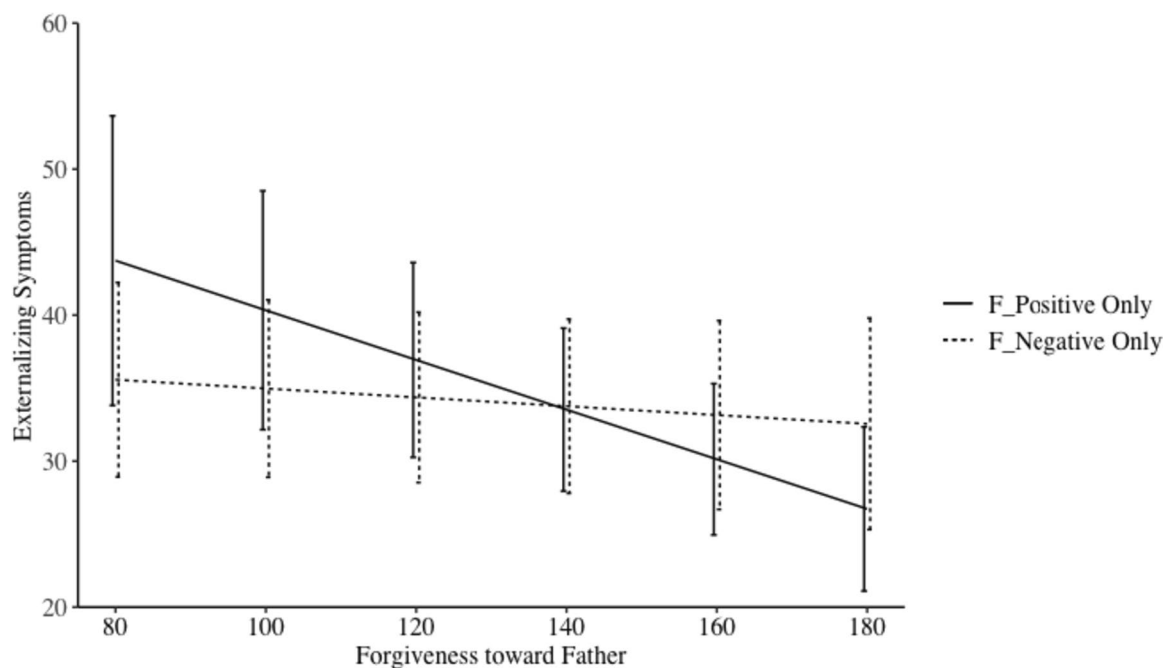
Fig. 3 Interactions between Paternal Parenting Profiles and Forgiveness toward Father on Externalizing Symptoms. *Note.* Error bas are 95% confidence intervals. F = Father

adult children's internalizing symptoms, we did find an interaction effect between paternal parenting profiles and forgiveness toward father on adult children's externalizing symptoms.

Parenting Profiles, Forgiveness, and Internalizing Symptoms

Negative Only maternal and paternal parenting profiles predicted higher adult children's internalizing symptoms than Positive Only parenting profiles, which is consistent with the literature that showed both positive (i.e., parental warmth and monitoring) and negative parenting behaviors (i.e., hostility) were associated with children's internalizing symptoms (Pinquart, 2017a, b; van der Sluis et al., 2015). This extends the extant literature on parenting behaviors and children's internalizing symptoms to adulthood and reinforces the view that the combination of positive and negative parenting is associated with adult offspring's mental well-being. Furthermore, higher levels of forgiveness toward mother also predicted lower levels of internalizing symptoms; however, no moderating effects of forgiveness toward mother were found between maternal parenting profiles and adult children's internalizing symptoms. The results add to a growing body of literature regarding how forgiveness may lead to greater mental well-being, such as internalizing symptoms, in the family context (Orcutt, 2006; Toussaint & Friedman, 2009). No significant association of forgiveness toward father on internalizing symptoms emerged. One plausible explanation is that the effects of forgiveness toward parents on internalizing symptoms may be affected by the mother–child relationship and the father-child relationship. According to the evolutionary perspective (Kenrick et al., 2004), father tends to be more detached from children than mother. The detachment may affect father-child closeness and relationship quality (Maio et al., 2008), which might be an important moderator between the association of forgiveness toward father and children's internalizing symptoms. Indeed, participants in the current study were more likely to perceive father as absent or detached (see the supplemental materials for details). Thus, future studies should examine more about the father's involvement in the family, as it is possible that the effects of forgiveness toward father on internalizing symptoms may be observed in families where the father is involved more.

Parenting Profiles, Forgiveness, and Externalizing Symptoms

Positive Only maternal parenting profile and higher levels of forgiveness toward mother also predicted lower levels of adult children's externalizing symptoms. It is important to

note that the paternal parenting profile was not significantly associated with adult children's externalizing symptoms if only considering the main effects of paternal parenting and forgiveness toward father. These findings provide evidence that parenting behaviors may be associated with children's externalizing symptoms (Borden et al., 2014; Eaton et al., 2015; Roche et al., 2008), but the associations might vary according to the gender of parents when children are adults. For instance, the mother–child relationship has been considered more influential compared to the father-child relationship as maternal care has shown larger effect sizes for adult psychopathology than paternal care (Enns et al., 2002). If considering the interaction effects of paternal parenting and forgiveness toward father, however, high forgiveness toward father was associated with less externalizing symptoms under conditions of Positive Only paternal parenting profile. This result suggests that higher levels of forgiveness toward father could predict fewer externalizing symptoms if adults experienced more positive paternal parenting in childhood or adolescence. It is plausible that even if daily paternal parenting behaviors could be general positive, a one-time-only transgression done by parents may generate long-lasting negative effects on children's mental health. Yet, forgiveness toward father could significantly protect children from the negative experience. This result is also in line with a previous study that forgiveness toward an original family member can help offspring address anger resulting from past hurts and further preventing anger displacement toward others (Lee & Enright, 2009). Therefore, the combination of forgiveness and positive paternal parenting may have additive effects on emotion regulation abilities, leading to better coping mechanism of stress, reducing the risk of externalizing problems. It is surprising that higher forgiveness toward father was not associated with fewer externalizing symptoms under the Negative Only paternal parenting profile. One possibility is that adult children who experienced high levels of negative paternal parenting may need a mental health intervention (i.e., forgiveness therapy), as forgiveness is a process needing effort rather than being achieved immediately (Enright et al., 1989; Fincham, 2000).

Strengths and Limitations

The current study had some strong aspects, such as the use of latent profile analysis, considering the effects of both mothering and fathering, and the qualitative analysis of participants' stories to have a better understanding of the variations and severity of parental transgressions that the participants had experienced. Several limitations also should be noted when interpreting the results. First, early parenting behaviors were self-reported retrospectively by participants. Although a number of studies have demonstrated that

retrospective memories of parental care in early childhood were associated with later adult children's internalizing and externalizing symptoms regardless of the accuracy of memories (Chopik & Edelstein, 2019; Pietromonaco, et al., 2013; Shaw, 2006; Shaw et al., 2004), retrospection might be affected by adult children's current well-being, current relationship with parents, and cognitive abilities. Therefore, causal inferences between early parenting and adult children's outcomes cannot be made. However, previous studies have demonstrated that retrospective perceptions of parenting were relatively reliable and could be used to assess the links between early parenting and later adjustments of adults (Kendall-Tackett & Becker-Blease, 2004; Yancura & Aldwin, 2009). Nevertheless, future studies should consider utilizing multi-informant measures (e.g., parent-report and adult-children report) and controlling other possible confounding variables to reduce measurement errors. Second, the cross-sectional nature of the study precluded the ability to make inferences about how forgiveness toward parents influences adult children's mental health over time. Longitudinal studies are needed to understand how forgiveness toward parents could protect children against negative parenting behaviors. Third, when assessing forgiveness toward parents, the retrospective nature of the past hurtful experiences also should be noted that the current mental health state may influence how individuals reported forgiveness in the present. Additionally, the forgiveness scores toward both parents were strongly skewed in the positive direction in the current study, which means most participants had high levels of forgiveness toward parents. It is possible that individuals with different levels of forgiveness toward parents may perceive parenting differently, and this subsequently may affect their mental status. Fourth, it is important to note that the measure used in the current study to assess parental hostility also contains physical brutality. Although the mean scores of maternal and paternal hostilities in the current sample are relatively low, it is not clear how many children were possibly abused. Therefore, the role of forgiveness toward parents may vary depending on families with normative parenting or non-normative parenting (such as abuse). Fifth, most of the participants were White and of high educational attainment, which was unrepresentative of the general population. Thus, the current results may lack generalizability and cross-cultural research is needed. Also, although the sample size of the current study is adequately powered to detect the associations between parenting and offspring outcomes, the results of parenting profiles should be interpreted with caution given the exploratory nature of LPA, as our sample size is slightly below the recommended threshold for LPA (Nylund-Gibson & Choi, 2018). A larger sample size may reveal more nuanced parenting profiles (e.g., indifferent parenting with lowers levels of positive and negative parenting).

Therefore, research with increased sample sizes is needed to enhance the generalizability of the findings.

Implications and Future Research

The findings may have potential clinical implications, particularly with respect to the prevention and treatment of children and youths' internalizing and externalizing symptoms. The current study reinforces the importance of parenting behaviors during childhood and adolescence which could have long-term influences on children's mental health problems in emerging adulthood and adulthood (Raudino et al., 2013; Steele & McKinney, 2019). Psychological practitioners could also consider fostering forgiveness toward parents among children and youths, as forgiveness may help them to cope with negative feelings toward parents (Wang & Qi, 2017), therefore protecting them from internalizing and externalizing symptoms to some extent. Furthermore, school educators could consider utilizing parenting education to prevent negative parenting behaviors as well as forgiveness education intervention targeting parental transgression to guide through the specific forgiveness process, such as identifying the parenting behaviors that triggered negative emotions, learning about the benefits of forgiveness toward parents, and other necessary steps (Enright, 2001; Enright et al., 2003). Future research could examine the short-term and the long-term effects of the combination of parenting education and forgiveness education on offspring's well-being.

The findings also suggest that children or youths with positive paternal parenting may be more likely to benefit from forgiveness education or forgiveness therapy regarding externalizing symptoms. The individual differences in forgiveness may partially explain why the effects of parent-based treatments for externalizing symptoms range from small to large (Mingebach et al., 2018). Future studies should strongly consider separately but collectively assessing maternal and paternal parenting behaviors, and further explore the possible interactive effects of parenting behaviors and forgiveness toward mother and father, as this information may inform family therapies or parenting interventions, leading to more refined treatments for children and youths with internalizing or externalizing symptoms.

In summary, the present study provides further evidence that both maternal and paternal parenting behaviors may have a long-term influence on children's mental well-being in adulthood. The findings also show that forgiveness toward parents may have an important protective role for children, which might depend on the mother–child or father-child relationship, emphasizing the need to develop tailored prevention or treatment program to optimally benefit children who are at risk for internalizing and externalizing problems.

Declarations

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