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Change patterns of mother-adolescent perceived parenting and the corresponding trajectories in their internalizing symptoms

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Abstract:

Adolescence is a challenging and sensitive developmental period in which mothers and adolescents may be vulnerable to internalizing symptoms. The current study aimed to understand how patterns of changes in mother-adolescent perceived parenting (i.e., mother-adolescent perceived parenting transition profiles) corresponded with trajectories of mothers' and adolescents' internalizing symptoms from early to late adolescence. The current study utilized a three-wave longitudinal data set of 604 adolescents (54% female, Mage = 12.92, SD = 0.92) and 595 mothers (Mage = 38.89, SD = 5.74) from Mexican-origin immigrant families and adopted mother-adolescent perceived parenting transition profiles from a previous study. Multiple group analyses showed that mother-adolescent dyads who agreed on high levels of positive parenting across the course of adolescence (i.e., Stable Both High) experienced the lowest levels of internalizing symptoms, whereas dyads that showed an inconsistent pattern of mixed profile typologies over time (i.e., Fluctuated) experienced high levels of internalizing symptoms. For mother-adolescent dyads that consistently showed a pattern in which mothers reported more positive parenting compared to their adolescent children (i.e., Stable Mother High), mothers experienced low levels of (and even a decrease in) internalizing symptoms, while adolescents experienced considerably high levels of internalizing symptoms over time. The results for the other two parenting transition profiles (i.e., Change to Both High and Change from Both High) are also discussed. The findings highlight the importance of developing separate adaptive interventions to reduce internalizing symptoms for mothers and children by considering their change patterns of perceived parenting during the course of adolescence.

Keywords: Parent-child perceived parenting, internalizing symptoms trajectories, adolescence

Adapting to and dealing with the cognitive, social, emotional, and physical changes that take place during adolescence is challenging, which may lead to increased vulnerability to internalizing symptoms (e.g., anxiety and depressive symptoms) during this developmental period, not only for adolescents themselves but also for their midlife mothers (Hargrove et al., 2020; Horowitz & Graf, 2019). Such challenges may be particularly salient among low-income Mexican-immigrant families, who are under various contextual stresses because of their minoritized ethnic identity and low socioeconomic status (Kim et al., 2018). Mothers and adolescents may also need to negotiate parenting practices to navigate the transitional challenges that arise during adolescence, particularly for highly interdependent mother–adolescent dyads, such as dyads in which English-limited mothers need their adolescent children to translate for them (i.e., language brokering). Understanding the association between parenting and internalizing symptoms among mother–adolescent dyads across the course of adolescence is critical for helping mothers and adolescents handle the changes that occur during adolescence, enabling adolescents to transition into emerging adulthood smoothly with their mothers (Butterfield et al., 2021; Dix & Moed, 2019; Gorostiaga et al., 2019). However, it is worth noting that mothers and adolescents may perceive parenting differently (De Los Reyes & Ohannessian, 2016). Different discrepancy patterns in mother–adolescent perceived parenting (e.g., mothers vs. adolescents reporting higher levels of positive parenting practices than the other, including parental warmth, inductive reasoning, and/or monitoring) may be associated with varying levels of mothers' and adolescents' internalizing symptoms (Hou et al., 2020; Kapetanovic & Boson, 2022; Ohannessian et al., 2016), suggesting that it is important to consider both mothers' and adolescents' perceived parenting simultaneously when examining the association between parenting and internalizing symptoms. Considering the challenges and dramatic development during adolescence, the current study aimed to reveal how trajectories of mothers' and adolescents' internalizing symptoms from early to late adolescence differ across various change patterns of mother–adolescent perceived parenting discrepancy profiles (i.e., mother–adolescent perceived parenting transition profiles) among low-income Mexican-immigrant families.

The current study addresses two major gaps in previous literature. First, while previous studies have focused on either adolescents' (e.g., De Los Reyes & Ohannessian, 2016; Guion et al., 2009) or mothers' internalizing symptoms (Ohannessian et al., 2016), the current study considered midlife mothers and their adolescent children simultaneously, using family systems theory to yield a holistic understanding of how positive parenting perceptions (i.e., maternal warmth, inductive reasoning, and monitoring) are associated with both mothers' and adolescents' internalizing symptoms. Second, although the dynamic changes in mother–adolescent relationships are generally acknowledged (Branje, 2018), few studies have taken a developmental view by considering the trajectories of internalizing symptoms along with the change patterns of mother–adolescent perceived parenting (i.e., mother–adolescent perceived parenting transition profiles). In fact, mother–adolescent perceived parenting is a dynamic process that may change over time as mothers and adolescents negotiate their relationships (Wen, Chen, et al., 2023). Building on a prior study that identified five change patterns of perceived parenting in low-income Mexican-immigrant families with adolescent language brokers (Wen, Chen, et al., 2023), the current study explored how mothers' and adolescents' internalizing symptoms go hand-in-hand with mother–adolescent perceived parenting from early to late adolescence.

Mother-Adolescent Perceived Parenting and Internalizing Symptoms

Mothers and adolescents are not isolated from each other when it comes to maternal parenting practices. Instead, they are both involved in the parenting process from their own perspectives, which relate to different trajectories of internalizing symptoms. While actual positive parenting practices can influence mothers' and adolescents' internalizing symptoms, the interpretation and understanding of parenting as reflected by perceptions of parenting from either mothers or adolescents also matter (De Los Reyes & Ohannessian, 2016); in other words, the perceptions and discrepancies in perceptions of positive parenting between mothers and adolescents may further reflect family functioning/problems that are related to well-being (e.g., Pelton & Forehand, 2001; Pelton et al., 2001), such as trajectories of internalizing symptoms. For example, mothers may insist on the

appropriateness of their parenting practices, which they believe are beneficial for adolescents (i.e., they perceive their parenting practices as characterized by high levels of warmth, inductive reasoning, and monitoring); at the same time, adolescents may feel that their developmental needs are ignored by mothers, and thus perceive lower levels of positive parenting. In such cases, mothers may maintain low levels of internalizing symptoms in midlife, while adolescents consistently experience high levels of internalizing symptoms. For this reason, the association between perceived parenting and internalizing symptoms needs to be understood within the context of mother–adolescent dyads by considering both mothers' and adolescents' experiences. Previous literature has recognized the importance of understanding such associations within mother–adolescent dyads by considering (a) differences in perceived parenting between mothers and adolescents (Human et al., 2016; Korelitz & Garber, 2016) and (b) both mothers' and adolescents' internalizing symptoms (Leung et al., 2016; Ohannessian et al., 2016).

Focusing on mothers' and adolescents' discrepant perceptions of parenting, the Modified Operations Triad model (De Los Reyes & Ohannessian, 2016) emphasizes the need to consider different patterns of mother–adolescent perceived parenting to better understand adolescent development. According to this model, convergent perceptions (i.e., mother–adolescent agreement) on high levels of positive parenting (i.e., Both High) reflect high-quality parent–child relationships and interactions that are a protective factor for adolescent development, while convergent perceptions on low levels of positive parenting (i.e., Both Low) suggests agreement on family functioning problems and thus is a risk factor for adolescent development. There are also two potential divergent patterns: mothers or adolescents may perceive higher levels of positive parenting practices than the other, (i.e., Mother High and Adolescent High, respectively). Divergent perceptions of positive parenting may be detrimental for adolescents when this divergence indicates problems with family functioning, such as mother–adolescent communication/interaction problems. Different patterns of mother–adolescent perceived parenting may also change across the course of adolescence as mothers and adolescents renegotiate their relationships and as mothers adjust to adolescents' changing developmental needs.

Previous studies have supported the Modified Operations Triad model in terms of the association between perceived parenting discrepancy and adolescent development using different methods, including the standardized difference scores approach (Guion et al., 2009; Kapetanovic & Boson, 2022), the interaction approach (Nelemans et al., 2016; Nichols & Tanner-Smith, 2022), and the person-centered approach (Hou et al., 2018; Rote & Smetana, 2016). For example, Hou et al. (2018) revealed that Mexican-origin adolescents who reported lower levels of positive parenting than their mothers (i.e., the Mother High pattern) experienced more depressive symptoms and anxiety 1 year later compared to adolescents who reported similar (i.e., either Both High or Both Low) or higher levels of positive parenting compared to their mothers (i.e., the Adolescent High pattern). When mothers perceive higher levels of positive parenting than their children (i.e., Mother High pattern), this may reflect a family context in which adolescents are dissatisfied with parenting, while mothers are resistant to change. Although the Mother High pattern is consistently associated with more internalizing symptoms for adolescents, the same pattern may relate to mothers' internalizing symptoms differently.

Most prior studies have focused on adolescents' outcomes, and only one study examined how mothers' and adolescents' discrepant views on parenting influenced mothers' internalizing symptoms (Ohannessian et al., 2016). However, based on the Family Systems Theory (Cox & Paley, 2003), mothers and adolescents are interdependent and may influence each other within the family system. One previous study (Ohannessian et al., 2016) found that mothers demonstrated more internalizing symptoms when both mothers and adolescents viewed their relationships and interactions negatively (i.e., Both Low pattern) than when mothers reported higher positive perceptions (i.e., Mother High pattern), while mothers' levels of internalizing symptoms were similar when they underreported compared to their adolescents (i.e., the Adolescent High pattern) and when mothers and adolescents both reported their relationships positively (i.e., Both High pattern; Ohannessian et al., 2016). In other words, mothers perceiving the mother–adolescent relationship (or parenting) more positively than adolescents is a discrepant pattern associated with worse internalizing symptoms for adolescents, but it may not be related to internalizing symptoms for mothers.

Change Patterns of Mother-Adolescent Perceived Parenting

Adolescence is a challenging developmental period for both mothers and adolescents. With dramatic brain development, adolescents are equipped with cognitive skills to seek independence and autonomy from mothers, such as developing discrepant views on parenting. Mothers need to adjust their parenting to adapt to such changes during adolescence. Conflicts and negotiations happen during this process, driving the changes in mother–adolescent relationships (Branje, 2018). Such shifts can be also reflected by different change patterns in mother–adolescent perceived parenting. Overall, mothers' and adolescents' perceptions of family functioning, including parenting, are not static across adolescence, but may change with adolescent development (Córdova et al., 2016; Mastrotheodoros et al., 2020). These changes can be captured by Latent Transition Analysis, which uses a person-centered approach to consider multiple aspects of parenting practices as perceived by both mothers and adolescents, and which can also reveal the distribution of different transition patterns of profiles over time.

Using Latent Transition Analysis, a previous person-centered study identified four patterns (i.e., Both High, Mother High, Adolescent High, and Both Low) of perceived positive parenting (i.e., parental warmth, parental inductive reasoning, and parental monitoring) and five transition profiles based on change/stability between different patterns from early to late adolescence (Wen, Chen, et al., 2023). For the five transition profiles, the largest group, the Stable Both High (38.91%) group, includes dyads who consistently agreed on high levels of positive parenting. A smaller proportion of dyads, in which mothers consistently reported higher levels of positive parenting perceptions than did their adolescent children, were labeled Stable Mother High (10.94%). The Change to Both High (9.42%) and Change from Both High (24.92%) groups were two profiles in which mother–adolescent dyads changed to or from the Both High pattern. The Fluctuated (11.24%) group included dyads who were never in the Both High pattern and changed across other patterns (i.e., Mother High, Adolescent High, or Both Low) during adolescence. The transition profiles identified in the previous study have been shown to be related to adolescent academic performance. Specifically, adolescents in the Stable Both High and Change to Both High groups exhibited better academic performance in late adolescence compared to the other three groups. Staying in the Both High group may reflect mother–adolescent dyads' resilience to challenges during adolescence, leading to favorable academic outcomes. In addition, experiencing divergent views of parenting in early adolescence but changing to Both High in late adolescence suggests that mother–adolescent dyads learned adaptive strategies to cope with changes during adolescence, which benefited adolescents' academic performance. However, better academic performance is not necessarily related to lower internalizing symptoms (Chen et al., 2013). The current study moved beyond Wen, Chen, et al. (2023) in three important ways. First, the current study extended the outcomes to consider internalizing symptoms. Second, the current study considered the trajectories of internalizing symptoms from early to late adolescence instead of examining the outcome only in late adolescence. Third, the current study considered internalizing symptoms among mother–adolescent dyads by including both adolescents' and mothers' outcomes rather than adolescent outcomes only.

Mother-Adolescent Perceived Parenting Change Patterns and Trajectories in Mothers' and Adolescents' Internalizing Symptoms

As a large and increasing population in the United States, Latinx individuals, especially those in low-income immigrant families, experience multiple contextual stressors in their daily life, which increase their vulnerability to internalizing symptoms. Midlife Latina women are more likely to experience depression compared to Latino men and other age groups (Brody et al., 2018), and Latinx adolescents have a higher rate of internalizing symptoms than their white peers (McLaughlin et al., 2007). Moreover, Latinx are less likely to seek medical help for internalizing symptoms compared to white people (Cook et al., 2017). Thus, prevention of internalizing symptoms is critical for individuals in low-income Mexican-immigrant families, including midlife mothers who are under the stress of raising adolescent children, and adolescents who are going through dramatic changes in life. Prevention would be particularly needed for language brokers and their mothers given that the acculturation process for immigrant families with English-limited parents can be a salient stressor for the family (Morales &

Hanson, 2005). Heterogeneous trajectories of internalizing symptoms during adolescence (Arizaga et al., 2020; Lewis et al., 2020) provide the opportunity for preventive interventions during this developmental stage.

Adolescents overall show decreased internalizing symptoms (Cruz et al., 2021; Sirin et al., 2015; Smokowski et al., 2010), while Latinx women show increased internalizing symptoms during midlife (Hargrove et al., 2020). However, the trajectories of adolescents' internalizing symptoms vary across individuals who experience different levels of mother–adolescent interaction quality (e.g., Finan et al., 2018). Adolescents who had a better mother–adolescent interaction quality experienced greater declines in depressive symptoms (Finan et al., 2018). Despite parenting being a critical factor for internalizing symptoms, most studies have measured only adolescents' or mothers' reports/perceptions of parenting and have not considered the discrepancies in perceptions (Pinquart, 2017), and few studies, if any, have considered the trajectories in internalizing symptoms of both adolescents and their midlife mothers along with the change patterns of mother–adolescent perceived parenting. Thus, rather than pursuing the direction of the association between perceptions of parenting and internalizing symptoms, the current study aimed to untangle different trajectories of mothers' and adolescents' internalizing symptoms across the five transition profiles of mother–adolescent perceived parenting that were identified in the previous study (Wen, Chen, et al., 2023).

Adolescents and mothers in the Stable Both High group may have the lowest levels of internalizing symptoms from early to late adolescence, as they are both satisfied with parenting consistently from early to late adolescence despite dramatic changes during this period. Simultaneously, mothers and adolescents with the lowest levels of internalizing symptoms may show more positive and adaptive behaviors that can elicit more supportive maternal parenting strategies, helping maintain their Stable Both High typology. On the other hand, mother–adolescent dyads in the Fluctuated group may experience high and increased internalizing symptoms as they are unable to reach an agreement on parenting despite continually adjusting their parenting perceptions, which may lead to increased stress and exhaustion. However, adolescents and mothers may have different psychological experiences (i.e., internalizing symptoms) even when they are in the same perceived parenting transition group, particularly if this group is characterized by discrepancy. For example, for adolescents in the Stable Mother High group, their internalizing symptoms may be high in early adolescence and remain high across adolescence, because of the low levels of positive parenting they perceived; however, mothers in this group may experience low levels of internalizing symptoms from early to late adolescence given their consistent perceptions of high levels of positive parenting.

The Current Study

The current study is an exploratory study aiming to reveal trajectories in mothers' and adolescents' internalizing symptoms from early to late adolescence and their associations with perceived parenting change patterns. First, the current study investigated the overall trajectories of mothers' and adolescents' internalizing symptoms during adolescence using a three-wave longitudinal data set of Mexican-origin mother–adolescent dyads from low-income immigrant families. Second, the current study aimed to reveal different trajectories in mothers' and adolescents' internalizing symptoms across mother–adolescent perceived parenting change patterns (i.e., mother–adolescent perceived parenting transition profiles). The mother–adolescent perceived parenting transition profiles (i.e., Stable Mother High, Stable Both High, Change from Both High, Change to Both High, and Fluctuated groups) used in the current study were adopted from a previous study (Wen, Chen, et al., 2023) based on the same data set. Growth curve models of mothers' and adolescents' depressive symptoms and anxiety were conducted for each transition profile, and the intercepts and slopes were compared between transition profiles. Varied change trajectories depicted by the growth curve models would be shown for different perceived parenting transition profiles as discussed in the introduction. This study was not preregistered.

Method

Participants

The current study adopted the sample from a three-wave longitudinal study conducted in a large city in central Texas from 2012 to 2020. Families were qualified to participate if both parents were Mexican immigrants and had a middle-school-age child translating for parents between English and Spanish at Wave 1 (2012–2015). At Wave 1, 604 adolescents (54% female, Mage = 12.92, SD = 0.92) and 595 mothers (Mage = 38.89, SD = 5.74) participated in the study. Wave 2 was conducted about 1 year later with 80% of adolescents (n = 483, 55% female, Mage = 13.72, SD = 0.90) and 81% of mothers (n = 479, Mage = 39.80, SD = 5.85) remaining. Compared to families who participated only in Wave 1, families who continued participating in Wave 2 had higher maternal education levels, $t_{mother}(591) = 2.41$, $p < .05$. Wave 3 was conducted about 4 years after Wave 2 with 55% of adolescents (n = 334, 56% female, Mage = 17.62, SD = 1.05) and 55% of mothers (n = 329, Mage = 43.85, SD = 5.75) remaining. Families with younger (vs. older) adolescents at Wave 2 tended to continue participating in the study at Wave 3, $t_{age}(481) = 2.96$, $p < .01$. The median family income was in the range of $20,001–$30,000 between 2012 and 2015.

Procedure

The larger study adopted convenience sampling and recruited participants using multiple resources (i.e., public records, community recruitment, and school presentations). Research assistants screened and contacted potential participants via phone calls to acquire permission for an acquaintance meeting. In the acquaintance meeting, the mother and adolescent provided consent or assent if the family decided to participate. Data collection at each wave was conducted in home-visit interviews. Bilingual research assistants read interview questions to mothers and adolescents in their preferred language (i.e., Spanish or English) and recorded their answers on a laptop. Each family received $60 for participating in Wave 1 and $90 for Waves 2 and 3. The study procedure and design were reviewed and approved by the Institutional Review Board at the University of Texas.

Measures

Adolescents and mothers reported on their perceptions of positive parenting (i.e., maternal warmth, monitoring, and inductive reasoning, see Table S1 in the online supplemental materials for scale items) and their internalizing symptoms (i.e., depressive symptoms and anxiety, see Table S2 in the online supplemental materials for scale items) across three waves.

Positive Parenting

Positive parenting was measured by 15 items adopted from the Iowa Youth and Families Project (Ge et al., 1996). Adolescents and mothers reported their perceptions of how often mothers were warm to adolescents (i.e., maternal warmth) on a scale ranging from 1 (never) to 7 (always), how often mothers monitored adolescents' behaviors (i.e., maternal monitoring) on a scale ranging from 1 (never) to 5 (always), and how often mothers used reasoning to communicate decisions or exercise discipline (i.e., maternal inductive reasoning) from 1 (never) to 5 (always). Higher scores represent more positive parenting perceptions. Cronbach's alpha reliability scores range from .75 to .92 for adolescents' reports and .64 to .83 for mothers' reports (see detailed information of measures in Wen, Chen, et al., 2023).

Internalizing Symptoms

Depressive symptoms were measured by the 20-item Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). Adolescents and mothers reported their depressive symptoms (e.g., I could not shake off the blues (feeling down or bad) even with help from family or friends) during the past week on a scale ranging from 0 (rarely or none) to 3 (most or all). Scores were averaged, and higher scores represent more depressive symptoms. Cronbach's alpha reliability scores are .83, .84, and .87 for adolescents and .88, .89, and .85 for mothers from Waves 1 to 3, respectively.

Anxiety was measured by four items adapted from prior studies (Reynolds & Richmond, 1997). Adolescents and mothers reported how often they were bothered by anxiety-associated symptoms (e.g., having trouble relaxing) on a scale ranging from 1 (not at all) to 4 (nearly every day). Scores were averaged and rescaled to 0–3. Higher scores represent higher levels of anxiety. Cronbach's alpha reliability scores are .75, .82, and .81 for adolescents and .81, .84, and .82 for mothers from Waves 1 to 3, respectively.

Covariates

Basic demographic variables that may be related to internalizing symptoms (i.e., mothers' and adolescents' age, adolescents' nativity, and adolescents' gender; Cruz et al., 2021) and variables related to attrition (i.e., maternal education level) were included as covariates in the analyses. Maternal education level was measured by mothers' self-reported highest education level at Wave 1. The scale ranges from 1 (no formal schooling) to 11 (finished graduate degree). Mother and adolescent age, adolescent nativity, and adolescent gender were assessed by self-reported measures in Wave 1.

Analysis Plan

Analyses were conducted in two steps in SPSS (Version 22) and Mplus (Version 8.3). First, to reveal the trajectories of internalizing symptoms from early to late adolescence for both mothers and adolescents, four unconditional growth curve models were conducted for adolescents' and mothers' depressive symptoms and anxiety separately. Second, four multiple group models were conducted to show and compare the differences in intercepts and slopes for adolescents' and mothers' depressive symptoms and anxiety, separately, across different mother–adolescent perceived parenting transition profiles adopted from Wen, Chen, et al. (2023). Benjamini–Hochberg adjustment was applied in the multiple group comparison to reduce Type I error. In models related to adolescents' reports, maternal education levels, as well as adolescents' age, nativity, and gender, were controlled. In models related to mothers' reports, maternal education level and maternal age were controlled. Full information maximum likelihood was applied in Steps 2 and 3 to handle missing data. Data for this study are not available because the sample is a vulnerable population in a limited geographic area that might be identified based on data. The code behind this analysis has been made publicly available at the APA repository and can be accessed at https://osf.io/stw8r/ (Wen, Sim, et al., 2023).

Results

Descriptive Information and Correlation

Table 1 shows the study variables' means, standard deviations, and correlations. Overall, adolescents and mothers reported higher levels of internalizing symptoms when they experienced lower levels of positive parenting in the same wave.

Table 1
Descriptive Information and Correlation of Study Variables

Variable	*N*	*M*	*SD*	1	2	3	4	5
1. Adolescent age	604	12.921	0.917	—				
2. Mother age	595	38.894	5.740	.034	—			
3. Maternal education	593	4.810	2.201	−.098*	−.004	—		
4. Adolescent nativity (0 = *Mexico*, 1 = *United States*)	604	0.753	—	−.178**	.169**	−.021	—	
5. Adolescent gender (0 = *girl*, 1 = *boy*)	604	0.457	—	.042	.014	−.001	−.022	—
6. W1 A—maternal warmth	604	5.181	1.270	−.063	.084*	−.015	.041	−.095*
7. W1 A—maternal inductive thinking	604	3.820	0.933	.027	.018	−.042	−.038	−.085*
8. W1 A—maternal monitoring	604	4.079	0.824	.018	.071	−.006	−.038	−.140**
9. W1 M—maternal warmth	595	6.071	0.780	−.131**	−.007	−.012	.047	.015
10. W1 M—maternal inductive thinking	595	4.267	0.702	−.066	−.094*	.074	.002	.005
11. W1 M—maternal monitoring	595	4.653	0.500	−.072	−.104*	.134**	.001	−.037
12. W1 A—depressive symptoms	604	1.562	0.385	−.063	−.051	.053	−.071	−.083*
13. W1 A—anxiety	603	1.692	0.613	.003	−.058	.055	−.023	−.101*
14. W1 M—depressive symptoms	595	1.470	0.423	−.017	.188**	−.074	.022	−.038
15. W1 M—anxiety	595	1.706	0.660	.037	.150**	−.079	−.009	−.037
16. W2 A—maternal warmth	483	5.095	1.263	−.033	.127**	.030	.075	−.088
17. W2 A—maternal inductive thinking	483	3.804	0.951	.015	.056	−.058	.009	−.072
18. W2 A—maternal monitoring	482	4.150	0.766	.006	.066	.003	.025	−.192**
19. W2 M—maternal warmth	480	6.052	0.784	.070	−.027	.063	−.014	.037
20. W2 M—maternal inductive thinking	480	4.327	0.663	.006	−.111*	.049	−.057	.017
21. W2 M—maternal monitoring	480	4.660	0.501	−.037	−.113*	.080	−.013	−.042
22. W2 A—depressive symptoms	483	1.547	0.388	−.035	−.128**	.048	−.092*	−.187**
23. W2 A—anxiety	483	1.720	0.651	.015	−.119**	.093*	−.105*	−.192**
24. W2 M—depressive symptoms	480	1.473	0.421	.030	.164**	−.091*	.014	.032
25. W2 M—anxiety	480	1.690	0.686	.064	.124**	−.038	.031	−.009
26. W3 A—maternal warmth	334	4.792	1.248	.037	.168**	.064	−.011	−.077
27. W3 A—maternal inductive thinking	334	3.433	0.964	.034	.112*	−.041	−.071	−.010
28. W3 A—maternal monitoring	334	3.962	0.819	−.047	.080	.077	−.080	−.206**
29. W3 M—maternal warmth	329	6.013	0.863	.017	.077	−.005	.008	.046
30. W3 M—maternal inductive thinking	329	4.219	0.757	.053	−.044	.075	−.040	.110*
31. W3 M—maternal monitoring	329	4.452	0.610	−.096	−.033	.064	−.030	.016

Variable	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6. W1 A—maternal warmth	—														
7. W1 A—maternal inductive thinking	.644**	—													
8. W1 A—maternal monitoring	.575**	.550**	—												
9. W1 M—maternal warmth	.215**	.069	.091*	—											
10. W1 M—maternal inductive thinking	.084*	.008	.086*	.552**	—										
11. W1 M—maternal monitoring	.147**	.011	.162**	.428**	.476**	—									
12. W1 A—depressive symptoms	−.318**	−.235**	−.306**	−.058	−.032	−.108**	—								
13. W1 A—anxiety	−.181**	−.131**	−.192**	−.083*	−.005	−.049	.610**	—							
14. W1 M—depressive symptoms	−.019	−.008	−.002	−.112**	−.151**	−.225**	.082*	.106**	—						
15. W1 M—anxiety	−.010	−.008	−.027	−.113**	−.126**	−.168**	.109**	.104*	.574**	—					
16. W2 A—maternal warmth	.619**	.428**	.375**	.208**	.102*	.127**	−.341**	−.202**	−.094*	−.076	—				
17. W2 A—maternal inductive thinking	.490**	.516**	.382**	.108*	.025	.124**	−.255**	−.112*	−.038	−.064	.637**	—			
18. W2 A—maternal monitoring	.476**	.464**	.583**	.138**	.127**	.193**	−.310**	−.188**	−.054	−.074	.570**	.611**	—		
19. W2 M—maternal warmth	.151**	.107*	.070	.479**	.340**	.275**	−.118**	−.087	−.100*	−.108*	.236**	.216**	.169**	—	
20. W2 M—maternal inductive thinking	.126**	.089	.092*	.297**	.324**	.286**	−.145**	−.077	−.062	−.033	.161**	.125**	.081	.488**	—
21. W2 M—maternal monitoring	.103*	.043	.080	.247**	.264**	.442**	−.149**	−.050	−.196**	−.218**	.189**	.122**	.119**	.369**	.485**
22. W2 A—depressive symptoms	−.265**	−.221**	−.183**	−.035	−.020	−.032	.529**	.404**	.117*	.112*	−.371**	−.225**	−.288**	−.014	−.043
23. W2 A—anxiety	−.172**	−.114*	−.080	−.038	.023	−.042	.410**	.507**	.128**	.114*	−.251**	−.161**	−.160**	−.010	−.052
24. W2 M—depressive symptoms	−.021	−.058	−.048	−.070	−.098*	−.188**	.040	.009	.504**	.414**	−.006	−.021	−.040	−.122**	−.059
25. W2 M—anxiety	−.061	−.080	−.099*	−.069	−.101*	−.175**	.066	.032	.429**	.566**	−.083	−.069	−.103*	−.088	−.068
26. W3 A—maternal warmth	.444**	.204**	.227**	.131*	.057	.053	−.153**	−.140*	−.044	.010	.495**	.323**	.315**	.253**	.164**
27. W3 A—maternal inductive thinking	.349**	.249**	.177**	.122*	.060	.022	−.134*	−.132*	−.064	−.007	.409**	.418**	.326**	.167**	.152**
28. W3 A—maternal monitoring	.268**	.181**	.266**	.055	.090	.051	.004	−.035	−.006	.090	.302**	.191**	.375**	.093	.067
29. W3 M—maternal warmth	.234**	.068	.088	.538**	.293**	.236**	−.101	−.061	−.142*	−.121*	.239**	.134*	.104	.517**	.315**
30. W3 M—maternal inductive thinking	.094	.004	−.001	.383**	.423**	.277**	−.110*	−.007	−.157**	−.115*	.204**	.085	.067	.393**	.443**
31. W3 M—maternal monitoring	.138*	.040	.046	.274**	.305**	.356**	−.042	.006	−.134*	−.137*	.127*	.015	.029	.292**	.260**
32. W3 A—depressive symptoms	−.096	−.110*	−.071	.136*	.055	.045	.271**	.304**	−.055	−.015	−.171**	−.046	−.110	.015	−.087
33. W3 A—anxiety	−.048	−.025	−.008	.097	.068	.020	.253**	.315**	−.041	.008	−.081	.018	−.053	.007	−.072
34. W3 M—depressive symptoms	.028	.026	.004	.011	−.103	−.144**	.059	.005	.359**	.346**	−.024	−.108	−.048	−.026	−.075
35. W3 M—anxiety	.027	−.016	.058	−.073	−.147**	−.198**	.009	−.041	.364**	.520**	−.052	−.082	.035	−.074	−.075

Variable	21	22	23	24	25	26	27	28	29	30	31	32	33	34
21. W2 M—maternal monitoring	—													
22. W2 A—depressive symptoms	−.035	—												
23. W2 A—anxiety	−.025	.625**	—											
24. W2 M—depressive symptoms	−.203**	.102*	.060	—										
25. W2 M—anxiety	−.182**	.105*	.081	.539**	—									
26. W3 A—maternal warmth	.095	−.140*	−.170**	−.072	−.157**	—								
27. W3 A—maternal inductive thinking	.076	−.171**	−.207**	−.021	−.133*	.687**	—							
28. W3 A—maternal monitoring	.123*	−.028	−.053	−.005	−.060	.512**	.519**	—						
29. W3 M—maternal warmth	.311**	−.058	.024	−.088	−.138*	.197**	.123*	.091	—					
30. W3 M—maternal inductive thinking	.316**	−.045	.051	−.125*	−.113*	.159**	.136*	.104	.513**	—				
31. W3 M—maternal monitoring	.296**	.039	.097	−.200**	−.121*	.127*	.153**	.223**	.396**	.520**	—			
32. W3 A—depressive symptoms	−.049	.352**	.303**	−.026	−.001	−.236**	−.170**	−.210**	.023	−.029	−.030	—		
33. W3 A—anxiety	−.048	.326**	.388**	−.033	−.101	−.126*	−.118*	−.124*	.025	.014	−.023	.676**	—	
34. W3 M—depressive symptoms	−.101	.034	−.050	.336**	.261**	.058	−.012	.062	−.047	−.139*	−.137*	.022	−.004	—
35. W3 M—anxiety	−.163**	.057	−.006	.338**	.453**	−.021	−.065	.065	−.107	−.131*	−.174**	.042	.066	.511**

Note. A = adolescent-reported; M = mother-reported; W1 = Wave 1; W2 = Wave 2; W3 = Wave 3.
* $p < .05$. ** $p < .01$.

Change Patterns of Internalizing Symptoms

The growth curve models for adolescents' depressive symptoms (comparative fit index [CFI] = .980, root-mean-square error of approximation [RMSEA] 90% confidence interval [CI] = [.000, .076], standardized root-mean-

square residual [SRMR] = .018) and anxiety (CFI = .980, RMSEA 90% CI [.000, .076], SRMR = .018), as well as mothers' depressive symptoms (CFI = 1.00, RMSEA 90% CI [.000, .000], SRMR = .004) and anxiety (CFI = .991, RMSEA 90% CI [.000, .069], SRMR = .031) all showed good model fits (Figure 1). Adolescents and mothers both reported mean depressive symptoms that were significantly greater than "rarely or none" in Wave 1 (adolescents, Mintercept = 0.559, p < .001, mothers, Mintercept = 0.473, p < .001), and their depressive symptoms remained stable from Waves 1 to 3. In terms of anxiety, adolescents and mothers both reported anxiety that was significantly greater than "not at all" in Wave 1 (adolescents: Mintercept = 0.690, p < .001; Mintercept = 0.711, p < .001). However, while adolescents experienced increased anxiety from Waves 1 to 3, mothers reported decreased anxiety from Waves 1 to 3.

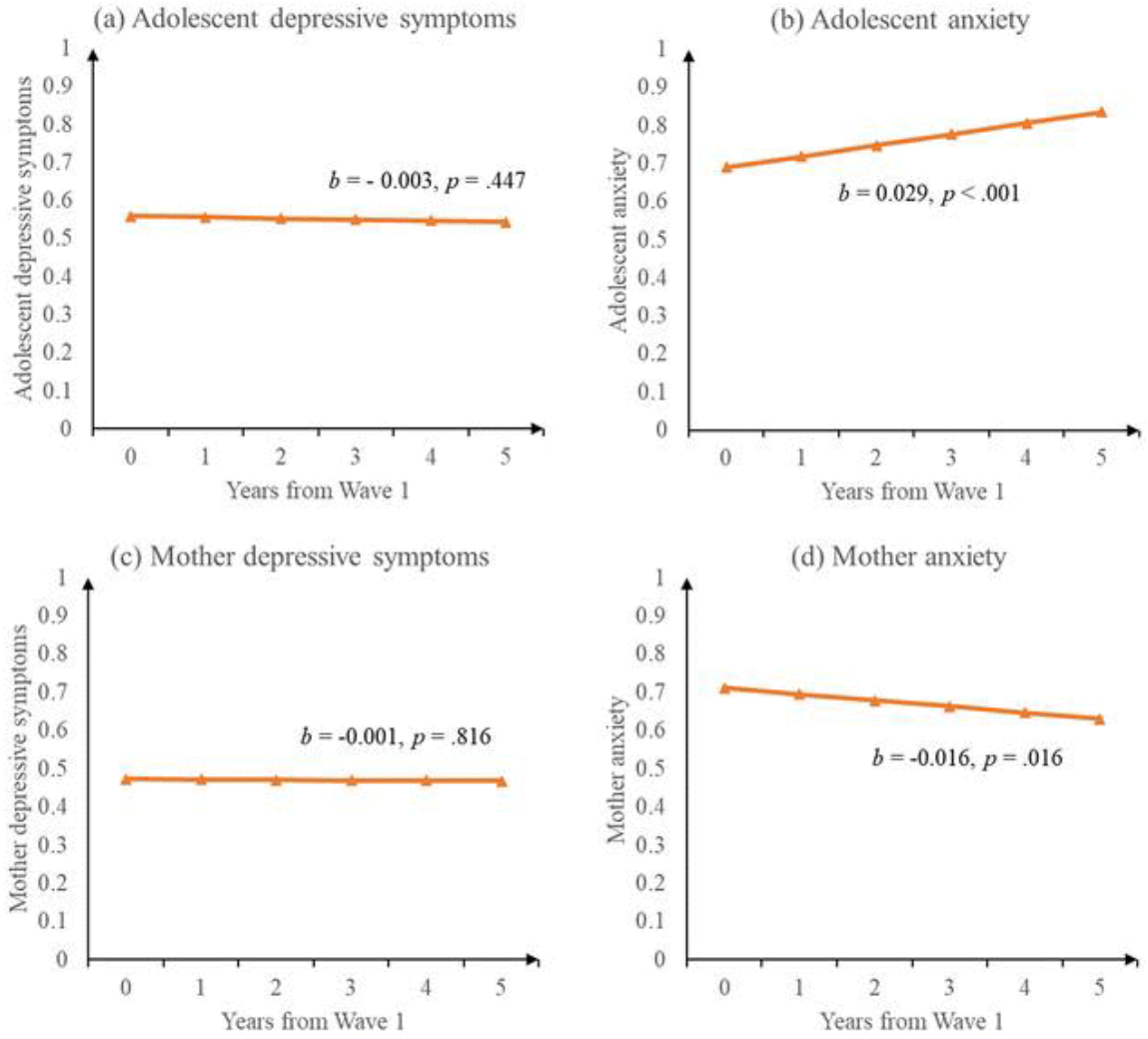


Figure 1 *Growth Curve Model of Adolescent and Mother Internalizing Symptoms From Waves 1 to 3*

Multiple Group Comparison

Multiple group comparisons showed differences in intercepts and slopes of adolescents' and mothers' internalizing symptoms (i.e., depressive symptoms and anxiety) across the five mother–adolescent perceived parenting transition profiles after the Benjamini–Hochberg adjustment (Table 2). Figure 2a displays results related to adolescents' depressive symptoms. In terms of the intercepts, adolescents in the Stable Mother High and Fluctuated groups reported higher levels of depressive symptoms than those in the Change from Both High and Stable Both High groups in Wave 1. In terms of slopes, adolescents in the Change from Both High group showed significantly greater slopes in depressive symptoms than those in the other four groups. Specifically,

adolescents in the Change from Both High group experienced increased depressive symptoms from Waves 1 to 3. In contrast, adolescents in the Change to Both High and Stable Mother High groups reported decreased depressive symptoms over time, and adolescents in the Fluctuated and Stable Both High groups had stable depressive symptoms from Waves 1 to 3. Figure 2b displays results related to adolescents' anxiety. In terms of the intercepts, adolescents in the Stable Mother High group reported higher anxiety levels than those in the Stable Both High group in Wave 1. In terms of slopes, adolescents in the Change from Both High and Stable Both High groups showed significantly greater slopes in anxiety than the Change to Both High and Stable Mother High groups. Specifically, adolescents in the Change from Both High and Stable Both High groups experienced increased anxiety from Waves 1 to 3, while adolescents in the Change to Both High and Stable Mother High groups had stable anxiety from Waves 1 to 3.

Table 2

Parameters of Growth Curve Model for Adolescent and Mother Internalizing Symptoms Across Different Mother–Adolescent Perceived Parenting Transition Profiles

	Fluctuated ($n = 37$)		Change to Both High ($n = 31$)		Stable Mother High ($n = 36$)		Stable Both High ($n = 128$)		Change from Both Hig ($n = 82$)	
Internalizing symptom	Estimate	p	Estimate	p	Estimate	p	Estimate	p	Estimate	p
Adolescent depressive symptoms										
Intercept	0.715_{a}	<.001	$0.611_{a,b}$	<.001	0.779_{a}	<.001	0.476_{b}	<.001	0.480_{b}	<.00
Slope	-0.023_{a}	.186	-0.029_{a}	.009	-0.024_{a}	.036	-0.002_{a}	.804	0.027_{b}	.00
Adolescent anxiety										
Intercept	$0.817_{a,b}$	<.001	$0.763_{a,b}$	<.001	0.955_{a}	<.001	0.581_{b}	<.001	$0.693_{a,b}$	<.00
Slope	$0.031_{a,b}$	.157	-0.009_{a}	.585	-0.032_{a}	.176	0.040_{b}	.002	0.049_{b}	.00
Mother depressive symptoms										
Intercept	0.564_{a}	<.001	0.514_{a}	<.001	0.466_{a}	<.001	0.442_{a}	<.001	0.453_{a}	<.00
Slope	-0.018_{a}	.113	0.012_{a}	.323	-0.004_{a}	.777	$<.001_{a}$	.949	0.005_{a}	.63
Mother anxiety										
Intercept	0.899_{a}	<.001	$0.755_{a,b}$	<.001	$0.723_{a,b}$	<.001	$0.658_{a,b}$	<.001	0.571_{b}	<.00
Slope	$-0.012_{a,b}$	.513	0.018_{a}	.383	-0.054_{b}	<.001	$-0.015_{a,b}$	.194	0.010_{a}	.40

Note. Different subscripts show significant differences in intercepts or slopes across different transition profiles after the Benjamini–Hochberg adjustment.

Figure 2. *Different Change Trajectories of Adolescent Internalizing Symptoms Across Different Mother–Adolescent Perceived Parenting Transition Profiles*

Note. BH = Both High; MH = Mother High. Different letters in the legend and next to the lines show significant differences in slopes and intercepts, respectively, across different transition profiles after the Benjamini–Hochberg adjustment.

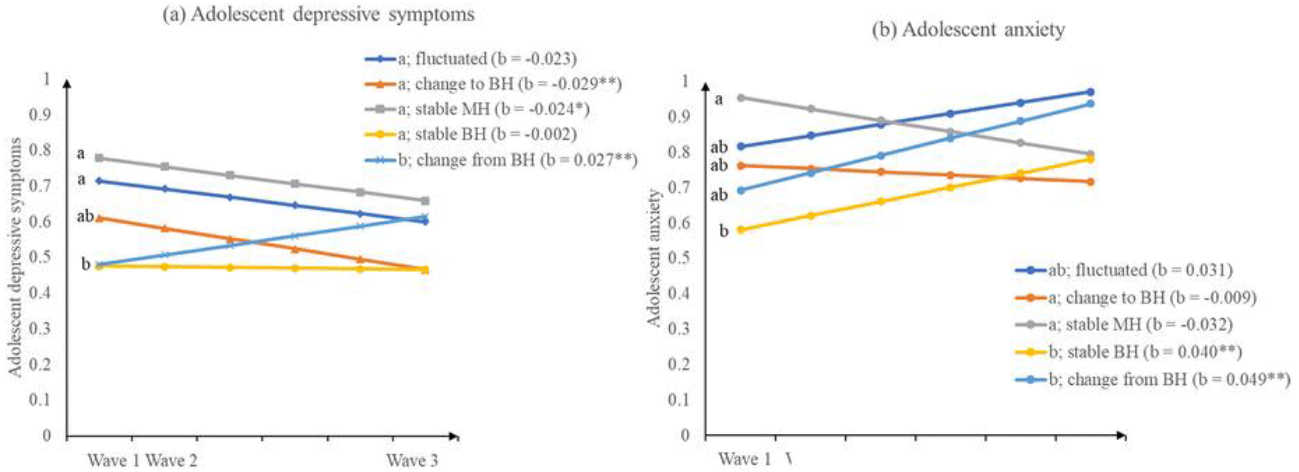
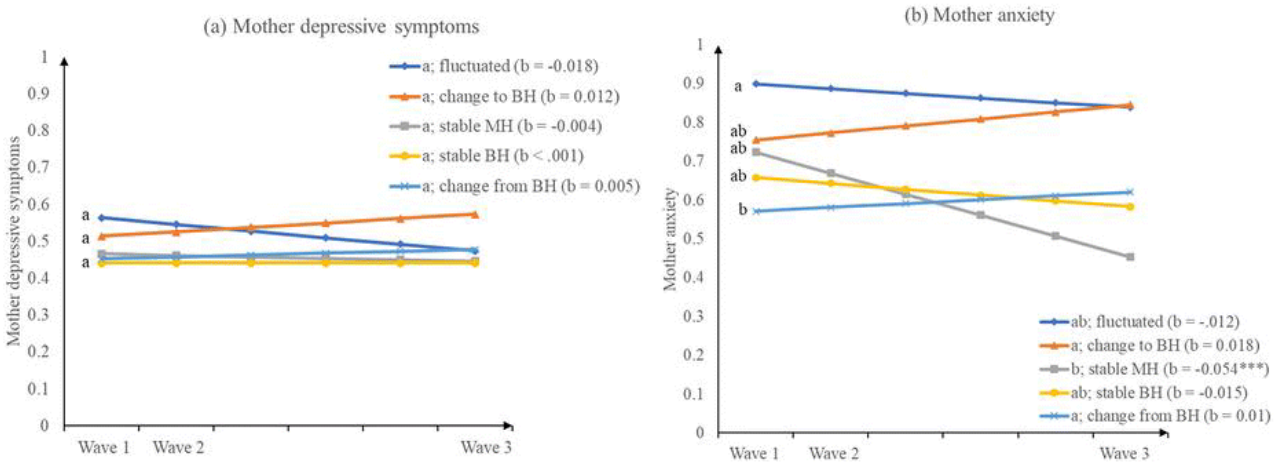


Figure 3a displays results related to mothers' depressive symptoms. There were no significant differences in intercepts or slopes of mothers' depressive symptoms across different mother–adolescent perceived parenting transition profiles. Figure 3b displays results related to mothers' anxiety. In terms of the intercepts, mothers in the Fluctuated group reported higher levels of anxiety than those in the Change from Both High group in Wave 1. In terms of slopes, mothers in the Stable Mother High group showed a significantly steeper negative slope in anxiety than those in the Change from Both High and Change to Both High groups. Specifically, mothers in the

Stable Mother High group experienced decreased anxiety from Waves 1 to 3, while mothers in the Change to Both High and Change from Both High groups had stable anxiety from Waves 1 to 3.

Figure 3. *Different Change Trajectories of Mother Internalizing Symptoms Across Different Mother–Adolescent Perceived Parenting Transition Profiles*



Note. BH = Both High; MH = Mother High. Different letters in the legend and next to the lines show significant differences in slopes and intercepts, respectively, across different transition profiles after the Benjamini–Hochberg adjustment.

Overall, mothers and adolescents being in agreement about high levels of positive parenting were associated with a lower level of adolescent internalizing symptoms, while the findings were less consistent in terms of mothers' internalizing symptoms. For both mothers and adolescents, though, being in the Fluctuated group was associated with relatively high levels of internalizing symptoms (i.e., depressive symptoms and anxiety for adolescents; anxiety for mothers). In contrast, being in the Stable Mother High group was associated with relatively high levels of adolescent internalizing symptoms but low and longitudinally decreased levels of anxiety for mothers.

Discussion

To understand associations between change patterns of mother–adolescent discrepancies in perceptions of mother's parenting and trajectories of mothers' and adolescents' internalizing symptoms, the current study extended prior work by adopting mother–adolescent perceived parenting transition profiles to examine their links with initial levels (i.e., intercepts) and changes in trajectories (i.e., slopes) of mother–adolescent depressive symptoms and anxiety from early to later adolescence. As expected, mother–adolescent pairs that consistently reported a pattern of high levels of perceived positive parenting showed low levels of internalizing symptoms across adolescence. More generally, our findings showed that mother–adolescent positive parenting transition profiles were heterogeneously linked with different initial levels of internalizing symptoms, and changes in profile membership were revealed to co-occur with changes in mothers' and adolescents' trajectories of depressive symptoms and anxiety. The valence and strength of these associations depended on (a) which transition profile membership dyads belonged in, and the type of internalizing symptom examined and (b) whether the assessments were focused on mother versus adolescent outcomes.

Discrepancies in perceptions of positive parenting practices commonly arise when ethnic minority parents and their children navigate the transformative years of adolescence. These discrepancies likely capture the quality of mother–adolescent relationship and give us hints concerning perceived and actual behavioral parenting practices (Korelitz & Garber, 2016), with potential implications for family members' mental health outcomes (Pelton et al., 2001). Given that perceptions of parenting practices offer distinctive information compared to

actual parenting behaviors (De Los Reyes & Ohannessian, 2016), a primary goal of the current study was to highlight the dynamic and interrelated nature between different profiles of perceived mother–adolescent positive parenting discrepancy and mothers' and adolescents' internalizing symptoms. As adolescence brings about significant developmental changes for all family members, mothers and adolescents may reevaluate their perceptions of parenting practices, leading to adaptive adjustments and intervention-related improvements in detrimental parenting behaviors to enhance overall familial functions. Some of these endeavors may be successful: for example, mothers and adolescents in the Change to Both High group identified in our study, showed improvements in positive parenting perceptions, likely because they underwent a successful negotiation process of shifting their strategies over the course of adolescence (e.g., improved family communication and mutual understanding; Kapetanovic & Boson, 2022). Here, mother–adolescent dyads experienced adaptive changes insofar as increasing levels of subjective agreement between mothers and adolescents on positive parenting practices significantly decreased adolescents' depressive symptoms over time.

The caveat, however, is that changes in transition profile membership may not always be adaptive: some changes (i.e., Change from Both High) and/or constant fluctuations in mother–child parenting perceptions may capture familial issues or challenges. Adolescents and mothers in the Fluctuated transition profile, for example, showed a pattern of constant change in mother–child discrepancy in parenting perceptions and mothers and adolescents in this group showed some of the highest levels of internalizing symptoms in early adolescence; there were also no declines in internalizing symptoms either for adolescents or their mothers across the course of adolescence, suggesting that the Fluctuated transition profile was one of the most maladaptive transition profiles identified in the current study. Mother–adolescent pairs in the Fluctuated transition profile likely experience extreme difficulty establishing and maintaining consensus on ideal maternal parenting practices despite continual adjustment in perceptions of parenting practices across time. Perhaps their inability to stay in one parenting discrepancy profile reflects adolescent resistance to maternal parenting strategies, teenage rebellion, and/or the possibility that mothers are less exposed to, and possibly unaware of, their adolescent children's (more inconspicuous internalizing) symptoms (Grills & Ollendick, 2002).

We point out here also the correlational nature of our study, and given the bidirectional associations between parenting discrepancy and internalizing symptoms noted in the literature (Pinquart, 2017), it is important to be mindful of the possibility that depressive symptoms and anxiety can also contribute to and exacerbate adverse parenting practices that culminate in more negative perceptions of positive maternal parenting. For instance, adolescents with high levels of internalizing symptoms can elicit counterproductive maternal parenting strategies, wherein mothers may engage in less positive parenting practices (i.e., less warmth, inductive reasoning, and monitoring) in an effort to prevent their children from experiencing greater distress. Mothers with high levels of internalizing symptoms can also be especially resistant to making changes in their parenting practices because of a lack of mental resources. These factors can further reduce adolescent autonomy and interfere with normative adolescent developmental tasks, ultimately reducing both mother and adolescent perceptions of positive parenting. Although both directions are plausible, we argue that perceptions of positive parenting are more likely to underlie differences in baseline and/or changes in trajectories of internalizing symptoms, and that internalizing symptoms reinforce and perpetuate low levels of positive parenting perceptions (i.e., a downward spiral). Unfortunately, we cannot test these hypotheses using the current approach as the present study was more focused on profiles of parenting discrepancy rather than testing for directionality (as is common in traditional longitudinal research that aims to determine directionality). Nevertheless, our findings have implications for developmental theories and reflect the burgeoning body of work revealing plasticity in both mothers' and adolescents' parenting perceptions and their respective internalizing symptoms (Branje, 2018; Ohannessian et al., 2016). It would be important for future research to examine this question through alternative methods (e.g., multilevel modeling which allows for distinguishing within-dyad time-varying fluctuations and between-dyad individual-level associations). More work can also be done to provide a more accurate account of the developmental challenges and how Mexican-origin mothers and adolescents navigate parenting discrepancies during adolescence, and assess how the various dyadic profiles are linked with personal well-being.

A separate goal of the present study was differentiating the links between parenting perceptions and internalizing symptoms for mothers versus adolescents, given that (a) existing theoretical frameworks such as the Modified Operations Triad model (De Los Reyes & Ohannessian, 2016) contend that mothers' and adolescents' positive parenting perceptions vary across adolescence; and (b) mothers and adolescents show discrepant changes in internalizing symptoms over time (Ohannessian et al., 2016). Our results indicated that Mexican-origin mothers and adolescents in the Stable Both High and Fluctuated transition profiles, for instance, showed similar levels of, and trajectories in, internalizing symptoms across both dyad members. Specifically, both mothers and adolescents in the Stable Both High transition profile showed a relatively stable and consistent pattern of low levels of baseline internalizing symptoms, which likely reflects more positive perceptions of parenting that may capture positive parenting strategies that build healthy family dynamics, such as effective mother–adolescent communication (Kapetanovic & Boson, 2022). Adolescents and mothers in the Fluctuated transition profile, on the other hand, showed some of the highest levels of internalizing symptoms, with no reductions in internalizing symptoms for either adolescents or their mothers across the course of adolescence. Somewhat in line with the family stress model, then, mother–adolescent dyads in the Fluctuated transition profile may experience elevated stress that can culminate in exhaustion, compromising both adolescent and maternal psychological outcomes (Epkins & Harper, 2016; Gorostiaga et al., 2019).

In contrast, we saw dissimilar levels of and heterogeneous trajectories in internalizing symptoms between-dyad members in the Change to Both High, Change from Both High, and Stable Mother High transition profiles. In particular, the greatest mother–adolescent discrepancies in trajectories (across all groups) of internalizing symptoms were observed when mothers consistently reported more positive parenting practices than their adolescent children from early to late adolescence. Adolescents in the Stable Mother High transition profile reported the highest baseline levels of depressive symptoms and anxiety across time among all groups, albeit with decreases in the level of depressive symptoms across time. This is in line with other studies that have revealed that parents who report higher levels of parenting efficacy than their children may report more negative child developmental outcomes (Rote & Smetana, 2016). In contrast, mothers in the same profile experienced moderate levels of anxiety in early adolescence and showed significant declines in anxiety from early to late adolescence. (Rote & Smetana, 2016). It is possible adolescents in the Stable Mother High group consistently provide more negative(ly biased) reports of parenting because adolescents' perceptions of their mothers' parenting are filtered through adolescents' own internalizing symptoms (see also structural model of depression, Beck, 2002: people with depression are more likely to adopt negatively biased schemas in their daily lives (e.g., engage in negative mood-congruent perception, appraisal, and recall; Chilcoat & Breslau, 1997), which can dampen the perceptions of maternal efficacy and adolescent adaptation strategies (used against depression). This explanation also fits when we consider that adolescents in this group reported the highest levels of baseline anxiety and depression. Helping adolescents acknowledge their potential biases may be helpful in boosting positive perceptions of maternal parenting. Alternatively, it is plausible that mothers in the Mother High group (erroneously) report higher levels of positive parenting, remain oblivious about parent–adolescent discrepancies in perceptions of parenting, and do not experience much impetus for change. Mothers may therefore continue to insist on their existing (arguably maladaptive) parenting practices and neglect their children's needs (a common excuse from mothers can be, "I''m doing it all for you"; see also Augenstein et al., 2016). For mothers in the Stable Mother High profile, it may be necessary to structure future interventions aimed at developing positive parenting skills alongside programs that raise maternal awareness and sensitivity to potentially biased mindsets, so that mothers can gain a better understanding of less appropriate parenting practices (associated with being in the Mother High profile and Stable Mother High transition profile) that may co-occur with their children's internalizing symptoms. Interventions targeted at improving maternal awareness may be an important first step in helping mothers identify and rectify potentially flawed parenting strategies.

Adolescents in the Change to Both High group showed declines in depressive symptoms, while adolescents in the Change from Both High showed increases in both depressive symptoms and anxiety. That is, as expected, a decline in consensus about maternal positive parenting was associated with increasing adolescents' depressive symptoms and anxiety, whereas a change toward better consensus was associated with decreasing adolescents' depressive symptoms. However, consistent across the Change to Both High and Change from Both High

transition profiles, mothers (as compared to their children) showed a more stable trajectory of internalizing symptoms, without significant differences in slopes across adolescence—perhaps, because adults have a more stable pattern of mental health than adolescents (Twenge et al., 2019). It is important to note that the Change to Both High transition profile may be considered an adaptive typology for adolescents' mental well-being; that is, with increasing levels of subjective agreement with their mothers on positive parenting practices (likely through improved mother–adolescent communication; Kapetanovic & Boson, 2022), adolescents showed significant decreases in depressive symptoms across time. In fact, the Change to Both High transition profile is the only transition profile that showed significant declines in adolescents' depressive symptoms and anxiety from early to later adolescence. Practitioners and policy-makers should therefore implement strategies and programs that not only help reduce internalizing symptoms, but also encourage mothers and their adolescent children to minimize discrepancies in perceptions of positive parenting practices and achieve consensus on high levels of positive parenting. For instance, programs that enhance parent–child dialogue and conflict resolution strategies may be successful in ameliorating dissonances and can improve positive parenting practices while maintaining low levels of internalizing symptoms.

Tangentially, we also noted significant increases in anxiety levels for adolescents in the Stable Both High transition profile. We reason that elevated anxiety levels observed in adolescents may reflect the uniqueness of our sample: adolescents in the present study serve as language brokers—cultural and language mediators, which can elevate anxiety during this developmental period (Morales & Hanson, 2005). Additional post hoc analyses found that adolescents who were in the Both High group did indeed show higher language brokering frequency (at least when compared to adolescents in the Mother High group). From our work, some level of anxiety may be adaptive for adolescents insofar as they are able to capitalize on the safety, trust, and security of their relationship with their mother (i.e., increased comfort) to facilitate the sharing of the anxious symptoms they experience. Notably, adolescent anxiety levels in the Stable Both High transition profile remained some of the lowest across all transition profile types. As almost 40% of mother–adolescent dyads were in this transition profile, this statistic reflects the possibility that many mother–adolescent pairs are already engaging in, and are already benefiting from, adaptive maternal parenting. It may be helpful for future work to examine if our present findings hold true in other samples where adolescents do not serve as language brokers for the family.

Altogether, the findings of the present study suggest the need for targeted interventions that build up Mexican-origin mothers' and their adolescent children's psychological well-being. Specifically, we suggest dual-pronged interventions that simultaneously aim to (a) facilitate parent–child communication and (b) assist mothers in developing more positive parenting practices. These interventions can help bridge the gap in parenting perception discrepancies with mothers, building consensus on which parenting practices are working well and which may need to be renegotiated. It may also be fruitful to raise both maternal and adolescent awareness of the perils of internalizing symptoms, and how they can contribute to less adaptive parenting practices (real or perceived). In turn, these programs may yield some success in helping mother–adolescent dyads achieve more optimal profile typologies (i.e., Stable Both High and Change to Both High transition profiles). Policy-makers, family counselors, and community practitioners may utilize this information to develop suitable programs that develop mothers' and adolescents' resilience against adverse internalizing symptoms.

The current study has some important limitations that are worth mentioning. First, the study was conducted with a sample of Mexican-origin mother–adolescent dyads in which adolescents serve as language brokers, so the sample consisted of ethnic minority children and mostly immigrant mothers with limited English skills. Given the tendency toward parent–child discrepancies in parenting perceptions in ethnic minority immigrant families (e.g., Hou et al., 2018), and the fact that adolescents and their parents have to negotiate their Mexican and American cultural orientations—which feed back into their internalized beliefs and definitions of positive parenting—it is likely that mother–adolescent parenting discrepancy trajectories are more volatile and vary across adolescence in this population (in comparison with White and/or American families; Gonzales et al., 2018). For instance, adolescent children may start to develop their own ideas, and deviate from their parents' perceptions, of what positive parenting means as they acculturate to mainstream American culture; mothers may also start to modify and redefine what parenting means as they settle into a more Americanized way of life.

Thus, the generalizability of the present findings may be limited, and may not apply to non-Mexican-origin samples. It would be interesting to examine whether the present findings hold true in a nonethnic minority, nonimmigrant, nonbroker sample in order to extend the external validity of the current work.

Second, we used indicators only of positive parenting—maternal warmth, monitoring, and inductive reasoning—because we were primarily interested in understanding how positive aspects of parenting were related to internalizing symptoms; however, it is plausible that other dimensions of parenting, or perhaps dimensions of negative parenting (e.g., psychological control and parental rejection), may have a more direct and/or profound impact on both mothers' and adolescents' internalizing symptoms. Relatedly, we assessed only mother–adolescent dynamics, and did not examine the relatively understudied domain of father–adolescent associations even though paternal parenting has been demonstrated to be as important as maternal parenting with respect to children's internalizing symptoms (van der Sluis et al., 2015). Future work may investigate how positive and negative parenting can be differentially related to maternal versus paternal parent–child internalizing symptoms to yield a more holistic appreciation of the correlations between parenting practices and psychological well-being for family systems in Mexican-origin households.

Lastly, the current study focused on perceptions of parenting based on self-report data; objective measures of parenting practices were not assessed. It is possible that the actual or objective parenting practices may not be consistent with the perceptions, which may reflect the adaptation of adolescents in adjusting to the parenting environment or family functioning problems that may bias the perceptions. Future studies could include both objective assessments and subjective measures of parenting and test to reveal the discrepancies between objective measures and subjective perceptions of both parents and adolescents.

Conclusion

The current study built on existing work to examine how profile pattern changes in mother–adolescent positive parenting perceptions correlate with potential changes in adolescent and mothers' trajectories of internalizing symptoms across adolescence. Results demonstrated that the Stable Both High transition profile, marked by mothers' and adolescents' consistent agreement on high levels of positive maternal parenting practices, was associated with the most adaptive outcomes for mothers and adolescents over time (i.e., generally the lowest levels of internalizing symptoms; note the slight increase in anxiety levels over time). Of interest, the Stable Mother High transition profile most divergence between the internalizing symptoms of adolescents (i.e., more depressive symptoms and anxiety) and their mothers (i.e., fewer depressive symptoms). Critically, cochanges in transition profile membership and trajectories of mother–adolescent internalizing symptoms suggest the need for more research to identify how different pattern changes of mother–adolescent parenting discrepancies are linked with growth and decline in depressive symptoms and anxiety. Given also that we found differences between mothers and adolescents, we also call for more research that examines maternal outcomes and for more differentiated work that distinguishes outcomes for mothers from those of their adolescent children. All in all, the present findings suggest that more targeted interventions differentiated by mothers versus adolescents are necessary for helping mothers develop more positive parenting practices to better allow mothers and adolescents to reach consensus on positive parenting practices that support both adolescent and maternal psychological well-being.

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of Texas at Austin, and Eunice Kennedy Shriver National Institute of Child Health and Human Development (Grant 5P2CHD042849-20) awarded to the Population Research Center at the University of Texas at Austin. No potential competing interest was reported by the authors. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. Data for this study will not be deposited. Data for this study are not available because the sample is a vulnerable population in a limited geographic area that might be identified based on data. The code behind this analysis has been made publicly available at the APA repository and can be accessed at https://osf.io/stw8r/.

Wen Wen served as lead for conceptualization, formal analysis, and visualization. Lester Sim served in a supporting role for conceptualization. Yang Hou contributed equally to writing-review and editing and served in a supporting role for conceptualization and methodology. Shanting Chen served in a supporting role for conceptualization and writing-review and editing. Su Yeong Kim served as lead for data curation, funding acquisition, investigation, project administration, and supervision and served in a supporting role for conceptualization, methodology, and writing-review and editing. Wen Wen and Shanting Chen contributed equally to methodology. Wen Wen and Lester Sim contributed equally to writing-original draft.

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