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Compassionate and Self-Image Goals in Parenting: Associations With Parental Well-Being, Parenting, and Child Adjustment

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Pursuing compassionate goals (i.e., seeking to improve others' well-being) has generally been linked with positive emotional and relational well-being, whereas self-image goals (i.e., striving to maintain or enhance how one is perceived by others) tend to be associated with poorer well-being. However, limited research has examined these goals in the context of parenting. In this 9-day daily experience study (N = 270), we investigated whether compassionate and self-image goals in relation to children were associated with parental well-being, parenting, and child adjustment. We also tested whether empathic and negative emotions mediate these associations. Results showed that parents who pursued compassionate goals reported more optimal well-being (e.g., greater positive emotions, lower stress) and more positive parenting and child adjustment (e.g., more supportive parenting, fewer negative child behaviors) both overall and across the week, in part due to their association with greater empathic emotions and lower negative emotions. Conversely, self-image goals were largely unrelated to well-being, parenting, and child adjustment. These findings suggest that parents' efforts to support their children's well-being are associated with their own well-being, parenting, and child adjustment.

Keywords: compassionate goals, self-image goals, parenting, well-being

People approach interpersonal interactions—including interactions with their children—with specific goals. For example, parents may wish to support their child's development, portray themselves as a "good parent" to others, or give and receive love from their child (Le & Impett, 2019). Two categories that have been used to define interpersonal goals include compassionate goals (i.e., prosocial aims to support others' well-being) and self-image goals (i.e., aims to maintain or enhance how one is perceived by others; Canevello & Crocker, 2015). For example, after experiencing conflict with their children, parents with greater compassionate goals may apologize and attempt to repair the relationship because they have compassion for their children's weaknesses and generally aim to be supportive and constructive. By contrast, parents with greater self-image goals may not apologize to their child because they want to avoid the possibility of being wrong or showing weakness to the child. Although these two types of goals may appear oppositional, people can hold both simultaneously, and prior research reveals moderate positive correlations between the two goals (e.g., Crocker & Canevello, 2008). Furthermore, similar actions, such as donating to charity, may be motivated by either compassionate or self-image goals (or both), and these underlying motives predict distinct emotional, social, and relational outcomes (Canevello & Crocker, 2015). Although compassionate and self-image goals have been widely studied in adult relationships (e.g., friendships; see Crocker et al., 2017, for a review), few studies have investigated these goals in the context of parenting across multidimensional well-being and family outcomes. In the current mixed methods daily diary study, we evaluated whether parents' compassionate and self-image goals in relation to their children were associated with parents' well-being, parenting, and child adjustment both globally and over the course of 1 week, as well as the extent to which these associations were partially mediated by parents' empathic and negative emotions.

Compassionate and Self-Image Goals in Parenting Contexts

Investigating compassionate and self-image goals in parent–child relationships and their associations with well-being, parenting, and

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Data and study materials are available on the Open Science Framework at https://osf.io/yqa38. The data and hypotheses presented in this article were previously shared in a conference poster presentation for the 2020 meeting for Society for Personality and Social Psychology and in an article presentation at the 2019 World Congress on Positive Psychology.

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child adjustment would advance knowledge of both interpersonal goals and parental well-being. Among adults in interdependent relationships (e.g., romantic relationships, roommates), compassionate goals have been linked with more positive outcomes than self-image goals (e.g., Canevello & Crocker, 2015; Duarte & Pinto-Gouveia, 2015). Yet unlike interdependent relationships among adults, parent–child relationships are unique in that children are dependent on their parents for providing care, but parents are not dependent on their children. This pattern of dependency creates a unique context for investigating compassionate and self-image goals. Among interdependent adults, compassionate goals may be beneficial because they generate an upward spiral of support within the relationship, and self-image goals may be costly because they disrupt this pattern of support (Crocker et al., 2017). However, given that parent–child relationships do not involve this type of reciprocated support, it is unclear whether the benefits of compassionate goals and costs of self-image goals will even emerge in this context. If they do, it may be due to different psychological processes, such as parents' emotions.

Second, Western cultures emphasize highly involved, child-centric parenting styles (Hays, 1998), which may pressure parents to prioritize their children's needs. Although this cultural norm may encourage parents to adopt compassionate goals—aiming for genuine, constructive support—it may also promote parental perfectionism stemming from self-image goals (i.e., the desire to appear competent or avoid criticism). Indeed, research suggests that societal pressure to be a "perfect parent" is associated with suboptimal parenting behaviors, such as parental overprotection, and is not associated with beneficial parenting practices (Venard et al., 2024). Thus, child-centric parenting could manifest through either compassionate or self-image goals, leading to divergent outcomes for parent and child well-being.

Third, this investigation also advances understanding of parental well-being, parenting, and child adjustment. Parental well-being—including emotions, life satisfaction, mental health, meaning, and psychological need satisfaction (Nelson et al., 2014)—has been identified as one of the most important methods of improving children's resilience (National Research Council, 2019). Yet research on these topics often explores these outcomes in isolation by focusing primarily on one aspect of parental well-being, parenting, or child adjustment, rather than considering them together. Moreover, many investigations of positive psychological constructs in the context of family focus on a single outcome, such as family communication or parent–child relationship quality (for a review, see Waters, 2020). We sought to capture a multidimensional perspective of parental well-being, including life satisfaction, depressive symptoms, anxiety and stress, positive emotions, negative emotions, empathic emotions, meaning, and psychological need satisfaction. We also evaluated parenting and child adjustment across domains, including parenting cognition (i.e., parental reflective functioning [PRF]), parenting behavior (i.e., supportive parenting), parent–child relationship quality (i.e., closeness, conflict), children's behavior (i.e., parent-reported positive and negative child behavior), and children's emotions (i.e., parent-reported child maladjustment). We also included global representations of well-being, parenting, and child adjustment alongside daily assessments, given evidence that some components of these constructs are relatively stable (e.g., life satisfaction) and others vary on a daily basis (e.g., emotions, parent–child interactions; Coffey et al., 2022; Diener et al., 1999).

Parental Well-Being

A growing body of research suggests that parents' compassionate goals may be positively associated with well-being, and self-image goals may be negatively associated with well-being. When parents prioritize compassion for their children, they may approach their interactions with greater patience and understanding, thus increasing their own empathy and well-being. Conversely, seeking to maintain their own self-image may exacerbate tension and conflict within parent–child relationships, thus reducing well-being. Indeed, child centrism—prioritizing children's needs over one's own—has been linked to greater parental well-being (Ashton-James et al., 2013). Previous research also indicated that communally oriented parents—those who prioritize giving care to their children—reported greater authenticity in parenting, which was in turn associated with better emotional well-being (Le & Impett, 2015). Research has also shown that having goals that tend to focus on child love and security—similar to compassionate goals—were linked to greater positive and fewer negative emotions, whereas having goals that focus on managing others' impressions of one's parenting—akin to self-image goals—were associated with reduced positive emotions (Le & Impett, 2019).

Notably, however, none of this prior research directly evaluated parents' compassionate and self-image goals in relation to their children. Indeed, communal strength reflects behavioral tendencies (e.g., sacrifice, support) that may stem from either compassionate or self-image goals. Communal strength does not predict other-focused reasons for giving, highlighting the need to distinguish between different motivational sources (Canevello & Crocker, 2020). Additionally, intensive parenting—a conceptually similar style characterized by highly involved and resource-intensive care—has been associated with poorer parental well-being (Kim & Kerr, 2024; Rizzo et al., 2013). Importantly, intensive parenting represents a complicated blend of behaviors that could arise from either compassionate or self-image goals.

Two recent studies have directly evaluated compassionate and self-image goals in relation to parental well-being. In one cross-sectional study including parents of first-year college students, compassionate goals were positively associated with parents' psychological need satisfaction, whereas self-image goals showed the opposite pattern (Smith et al., 2023). In another cross-sectional study of parents of children with autism spectrum disorder (ASD), compassionate goals were linked to greater parenting and life satisfaction, as well as greater presence of meaning in life. Conversely, self-image goals were associated with a stronger search for meaning (Conti, 2015). Together, these findings suggest that compassionate goals may support parental well-being—including emotional health, satisfaction, and meaning in life—whereas self-image goals may undermine it; however, the research directly considering parents' compassionate and self-image goals relied on cross-sectional studies, and few studies have considered whether these goals are related to parents' daily emotions and experiences caring for their children. In addition, little research has examined their associations with clinical indicators of mental health such as depression, anxiety, and stress, representing an important gap in the literature.

Parenting and Child Adjustment

Growing evidence suggests that compassionate and self-image goals may be related to parenting behaviors and child adjustment.

Compassionate goals may foster empathetic, supportive, and responsive parenting, which would in turn promote positive interactions between parents and children. Conversely, self-image goals may be associated with controlling behaviors, frustration, and conflict, thus undermining parenting and child adjustment. Evidence indicates that communal orientation was associated with greater parent–child closeness, less conflict, and more responsive parenting (Le & Impett, 2015). Additionally, child love and security goals were linked to more closeness and responsiveness and fewer conflicts in parent–child interactions, whereas parent image goals were linked to greater conflict (Le et al., 2019). In parents of children with autism spectrum disorder, compassionate goals were positively associated with perceived parenting efficacy (Conti, 2015). Further, compassionate goals have been associated with facilitative parenting—a responsive and autonomy-supportive parenting style—whereas self-image goals have been linked to controlling parenting, characterized by attempts to intrusively manage the child's thoughts and behavior (Kirby et al., 2019).

Notably, the research directly examining parents' compassionate and self-image goals in the context of parenting and child adjustment is limited to two studies, each of which rely on a cross-sectional design and consider only a single outcome. More work is needed to consider additional outcomes beyond parenting efficacy and facilitative parenting, including additional measures of parenting behavior as well as child adjustment. Accordingly, we evaluated parenting and child adjustment across domains, including parenting cognition (i.e., PRF), parenting behavior (i.e., coder-rated supportive parenting), parent–child relationship quality (i.e., closeness, coder-rated conflict), children's behavior (i.e., parent-reported positive and negative child behavior), and children's emotions (i.e., parent-reported child maladjustment).

Empathic and Negative Emotions

We suggest that parents' empathic and negative emotions are two potential psychological processes that explain the connection between interpersonal goals and parents' well-being, parenting, and child adjustment. In addition to considering broad positive emotions, recent research has focused on empathic emotions—a subset of positive emotions, such as caring and softheartedness—which are psychologically and functionally distinct from other positive emotions for their focus on others (Weidman & Tracy, 2020). Given their other-focus, empathic emotions align closely with compassionate goals and the caregiving role (Dix, 1991). Indeed, compassionate goals were related to greater sympathy—an empathic emotion—toward others' suffering (Yue & Yang, 2021). Evidence also indicates that viewing images of children elicits empathic emotions among people without children (Lishner et al., 2011; Nelson-Coffey & Cavanaugh, 2022). These emotions have been linked to effective communication (Hardee, 2003), relationship satisfaction (Wen et al., 2022), and subjective well-being (e.g., Shanafelt et al., 2005). In parenting contexts, parental empathy predicted less familial dysfunction (Pu & Rodriguez, 2023), greater mother–child relationship satisfaction and life satisfaction (Chen-Bouck et al., 2023), reflective functioning (Borelli et al., 2021), and child social skills (Meng et al., 2020). Thus, empathic emotions may be a key experience through which compassionate goals are associated with well-being and supportive parenting.

Compassionate and self-image goals may also be associated with parents' well-being, parenting, and child adjustment due to their links to negative emotions. Compassionate goals are associated with reduced negative emotions, whereas self-image goals have been consistently associated with heightened fear, anxiety, and other negative emotions (Canevello & Crocker, 2015; Duarte & Pinto-Gouveia, 2015). Parental negative emotionality has also been linked to children's whining, arguing, and use of negative emotion words (Slatcher & Trentacosta, 2012). Parents' frequent negative emotions are associated with their infants' poorer emotion regulation capabilities and social–emotional development (Aktar & Bögels, 2017). Experiencing frequent negative emotions is also associated with reduced well-being among parents (Nelson et al., 2014). Together, these findings suggest that compassionate and self-image goals may be linked to parents' well-being and parenting via their association with negative emotions.

The Present Study

The present study draws on secondary data to investigate how parents' interpersonal goals relate to their well-being and parenting and child adjustment, as well as the emotions that may underlie these associations. First, we investigated whether parents' compassionate and self-image goals were associated with global well-being (i.e., life satisfaction, anxiety and stress, depression) and parenting and child adjustment (i.e., PRF, child behaviors, child maladjustment). Based on previous literature, we suggest that compassionate goals would be positively associated with parental well-being (e.g., greater life satisfaction, reduced stress) and parenting and child adjustment (e.g., enhanced PRF, more positive child behavior), whereas self-image goals would be negatively associated with these outcomes. Given prior evidence that interpersonal goals and parental well-being are associated with demographics (e.g., parent age, parent gender, number of children, age of children; Crocker & Canevello, 2008; Nelson et al., 2014), we include these characteristics as covariates in our analysis.

Second, using a daily diary approach, we investigated whether these interpersonal goals predicted daily parental well-being (e.g., positive emotions, satisfaction, meaning in life) and parenting outcomes (i.e., coder-rated parental support, parent–child closeness, coder-rated conflict). We also evaluated whether daily empathic and negative emotions partially mediate the links between goals and daily outcomes. Given prior evidence that compassionate and self-image goals predicted behavior over the course of a week (Crocker & Canevello, 2008; Jiang et al., 2023), parents reported their compassionate and self-image goals in relation to their children at baseline for the upcoming week and then reported daily well-being and closeness. Parents also provided a narrative description of a caregiving experience each day, which was subsequently coded for parenting support, conflict, and care difficulty. Because some caregiving experiences may be more challenging than others and elicit greater compassion and empathy or greater stress and negative emotion, we controlled for daily caregiving difficulty in our analysis of the daily outcomes in addition to the demographic covariates described above, consistent with prior daily diary studies investigating parents' well-being (e.g., Le & Impett, 2015). Finally, we also include diary day as a covariate to account for change over time, consistent with recommended procedures in daily diary methodology (Bolger et al., 2003). Thus, our diary approach offers an important contribution to the literature by capturing parents' experiences of parenting as it is lived, minimizing recall and other

biases due to the idealization of parenthood (Bolger et al., 2003; Eibach & Mock, 2011).

Method

Participants

Parents (N = 270, 65.3% women) from the United States with at least one child under the age of 18 living in the home were recruited via Amazon Mechanical Turk to participate in a 9-day daily experience study in exchange for $8.75 (Nelson-Coffey & Coffey, 2018). We decided to recruit 270 participants based on the budget available for the study, which would provide >80% power to detect a medium effect size for between-person effects (Arend & Schäfer, 2019). The majority of parents were White (75.6%), followed by African American (8.9%), Asian American (6.3%), Latinx (4.8%), American Indian/Alaskan Native (1.5%), other (0.7%), and Middle Eastern (0.4%). Parents' ages ranged from 22 to 64 (M_{age} = 36.21, SD = 7.72). A plurality of participants reported household incomes between $50,000 and $99,999 (43.9%), followed by $24,000–$49,999 (24.2%), $100,000–$149,999 (14.5%), $15,000–$24,999 (7.1%), $14,999 or less (5.2%), and $150,000 or more (5.2%). A plurality of participants had earned a college degree (45.5%), attended some college (31.0%), or attended graduate education (13.1%); 9.0% graduated from high school; and 1.5% attended some high school. On average, parents reported that they had 1.98 children (SD = 1.06) with an average child age within families of 6.15 (SD = 3.90) years.

Procedure

On the first day of the study, after providing informed consent, participants completed questions regarding demographics, global well-being (i.e., life satisfaction, depressive symptoms, anxiety, stress), PRF, and child behavior and adjustment, along with reports of emotions, psychological need satisfaction, meaning in life, and satisfaction felt that day. On Days 2–8, parents were invited to complete a short daily diary survey, including a narrative description of a caregiving experience focusing on their child with the most recent birthday (adapted from Le & Impett, 2015), as well as emotions, psychological need satisfaction, meaning in life, satisfaction felt that day, and closeness to their child. On the final day (Day 9), parents again reported global well-being, PRF, and child adjustment, along with emotions, psychological need satisfaction, meaning in life, and satisfaction felt that day. This study was approved by The University of the South Institutional Review Board.

The current analysis focuses on baseline reports of life satisfaction, anxiety, depressive symptoms, perceived stress, PRF, and perceptions of children's behavior and adjustment; nine daily reports of emotions, psychological need satisfaction, meaning in life, and satisfaction felt that day; and seven narrative descriptions of daily caregiving experiences and reports of parent–child closeness (see Table 1 for descriptive statistics and correlations among study variables and https://osf.io/yqa38 for the full study protocol, including additional items not involved in the current analysis). One participant indicated that they did not have children, and one additional participant failed more than two of 11 attention checks; these participants were excluded from further analysis. Thus, our analyses include all available data from participants (n = 268) who met eligibility criteria and passed at least nine of 11 attention checks.

On average, parents completed 4.46 (SD = 2.69) out of seven diaries, providing 1,205 diaries in total, and 51.4% of participants completed six or more diaries. Survey completion was largely unrelated to demographic and psychological characteristics. Additional analyses of missing data are included in the additional online material, as well as analyses including only participants who completed at least two diaries (https://osf.io/yqa38).

Measures

Compassionate and Self-Image Goals

In the baseline survey, participants responded to 14 items reflecting compassionate (e.g., "I tried to be supportive of my child") and self-image (e.g., "I tried to convince my child that I am right") goals (adapted from Crocker & Canevello, 2008) on a scale from 1 (*not at all*) to 5 (*very much*). Scores were created for compassionate (α = .87) and self-image (α = .85) goals by averaging all available responses for participants who completed at least 60% of the items. All items and additional analyses evaluating the structure, validity, and distribution of this scale are included in the additional online material (https://osf.io/yqa38).

Global Well-Being

As indicators of global well-being, during the baseline survey, parents completed the Satisfaction With Life Scale (e.g., "I am satisfied with my life"; 1 = *strongly disagree*, 7 = *strongly agree*; α = .94; Diener et al., 1985), the State-Trait Anxiety Inventory (e.g., "I feel nervous"; 1 = *not at all*, 4 = *very much so*; Spielberger et al., 1971), the Perceived Stress Scale (e.g., "In the last month, how often have you felt nervous and stressed?" 1 = *never*, 5 = *very often*; Cohen et al., 1994), and Beck's Depression Inventory (e.g., "I do not feel sad [0]; I feel sad [1], I am sad all of the time and I can't snap out of it [2], I am so sad and unhappy that I can't stand it [3]"; Beck & Steer, 1984). Given the conceptual overlap and strong correlation between the State-Trait Anxiety Inventory and the Perceived Stress Scale (r = .82, p < .001), we created a composite of stress and anxiety by standardizing the summed scores for the State-Trait Anxiety Inventory and Perceived Stress Scale, respectively, and averaging the standardized scores. A composite score was calculated for the Satisfaction With Life Scale by averaging the items, and scores for the Beck's Depression Inventory were summed.

Global Parenting and Child Adjustment

Parental Reflective Functioning. In the baseline survey, parents completed the Parental Reflective Functioning Questionnaire (PRFQ; Luyten et al., 2017), an 18-item scale including three subscales measuring prementalizing (e.g., "My child cries around strangers to embarrass me"; α = .86), certainty about mental states (e.g., "I can always predict what my child will do"; α = .78), and interest and curiosity (e.g., "I like to think about the reasons behind the way my child behaves and feels"; α = .73). Each item was rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores were calculated for each subscale by averaging the items.

Child Behavior and Maladjustment. During the baseline survey, parents rated their child's positive (e.g., "My child is respectful to me"; α = .93) and negative (e.g., "My child is rude to me"; α = .91) behavior toward the parent, as well as perceptions of maladjustment

Table 1
Means, Standard Deviations, and Correlations of All Variables

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10	11
1. Compassionate goals	4.26 (0.68)	—										
2. Self-image goals	2.87 (0.97)	.15*	—									
3. SWLS	4.92 (1.48)	.11	.01	—								
4. PSS-STAI	−0.008 (0.96)	−.13*	.07	−.63***	—							
5. BDI	2.42 (5.24)	.01	.10	−.45***	.56***	—						
6. Positive child behavior	4.22 (0.85)	.44***	−.11	.23***	−.28***	−.18**	—					
7. Negative child behavior	1.85 (0.89)	−.31***	.15*	−.24***	.41***	.24***	−.68***	—				
8. Child maladjustment	2.22 (0.80)	−.22**	.21***	−.22***	.41***	.23***	−.63***	.77***	—			
9. PRFQ—PM	2.29 (1.27)	−.34***	.37***	−.14*	.24***	.17**	−.34***	.48***	.40***	—		
10. PRFQ—CM	4.21 (1.10)	.08	.19**	.20**	−.32***	−.19**	.39***	−.27***	−.34***	.04	—	
11. PRFQ—IC	5.32 (0.95)	.47***	−.16*	.09	.05	.02	.21***	−.06	−.02	−.34***	−.07	—
12. Positive emotions	4.83 (1.16)	.29***	.08	.50***	−.58***	−.29***	.41***	−.31***	−.36***	−.12	.31***	.13
13. Negative emotions	1.92 (0.74)	−.08	.22***	−.34***	.63***	.39***	−.29***	.43***	.37***	.41**	−.22**	.003
14. Empathic emotions	4.84 (1.23)	.41***	.04	.26***	−.29***	−.02	.35***	−.15*	−.20**	−.09	.18*	.27***
15. Need satisfaction	3.92 (0.53)	.30***	−.17*	.49***	−.70***	−.33***	.42***	−.47***	−.45***	−.39***	.40***	.07
16. Meaning	5.55 (1.21)	.30***	−.01	.52***	−.60***	−.36***	.37***	−.30***	−.32***	−.16*	.37***	.04
17. Daily satisfaction	5.48 (1.21)	.27***	−.03	.56***	−.63***	−.40***	.40***	−.36***	−.38***	−.17*	.40***	.02
18. IOS	5.04 (1.45)	.17*	.12	.19*	−.30***	−.17*	.34***	−.27***	−.31***	.004	.42***	.04
19. Conflict	0.53 (0.66)	.11	.08	−.13	.12	.09	.02	.05	.16*	.03	−.08	.07
20. Support	2.26 (0.82)	.10	−.05	−.08	−.02	.01	−.04	−.04	−.04	−.02	−.01	.07
21. Care difficulty	1.54 (0.90)	.03	.03	−.17*	.19**	.11	−.03	.07	.17*	.11	−.07	−.03

Variable	12	13	14	15	16	17	18	19	20	21
12. Positive emotions	—									
13. Negative emotions	−.35***	—								
14. Empathic emotions	.77***	−.01	—							
15. Need satisfaction	.70***	−.71***	.47***	—						
16. Meaning	.77***	−.48***	.53***	.77***	—					
17. Daily satisfaction	.78***	−.50***	.50***	.77***	.97***	—				
18. IOS	.40***	−.18*	.32***	.33***	.39***	.38***	—			
19. Conflict	−.12	.30***	.02	−.25**	−.14	−.19*	−.06	—		
20. Support	−.04	−.001	.12	.10	.05	.06	.07	−.11	—	
21. Care difficulty	−.20**	.42***	.03	−.26***	−.18*	−.22**	−.09	.61***	.15*	—

Note. All daily variables were averaged across the study period prior to calculating correlations (positive emotions, negative emotions, empathic emotions, need satisfaction, meaning, daily satisfaction, IOS, conflict, support, care difficulty). SWLS = Satisfaction With Life Scale; PSS = Perceived Stress Scale; STAI = State-Trait Anxiety Inventory; BDI = Beck's Depression Inventory; PRFQ = Parental Reflective Functioning Questionnaire; PM = prementalizing; CM = certainty about mental states; IC = interest and curiosity; IOS = Inclusion of Other in Self Scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

(e.g., "My child is irritable"; α = .93; Luthar & Ciciolla, 2015) on a scale from 1 (*very rarely*) to 5 (*usually*). Composite scores were calculated for each subscale by averaging the respective items.

Daily Well-Being

Daily Emotions. Parents reported seven positive (e.g., happy; $\omega_w = .89$, $\omega_b = .98$), six empathic (e.g., tenderness; $\omega_w = .84$, $\omega_b = .97$), and nine negative (e.g., frustrated; $\omega_w = .85$, $\omega_b = .96$) emotions each day on a scale from 1 (*not at all*) to 7 (*very much*; Diener & Emmons, 1984; Lishner et al., 2011). We created daily composites for positive emotions, empathic emotions, and negative emotions by averaging all available responses within each emotion category for participants who completed at least four positive emotion, three empathic emotion, and five negative emotion items.

Daily Psychological Need Satisfaction. Each day, parents completed the 18-item Balanced Measure of Psychological Needs (Sheldon & Hilpert, 2012), including subscales for autonomy (e.g., "I was free to do things my own way"), competence (e.g., "I took on and mastered hard challenges"), and connectedness (e.g., "I was lonely" [reversed]). Participants rated each statement on a scale from 1 (*no agreement*) to 5 (*much agreement*). Daily scores were calculated for overall psychological need satisfaction by averaging all available responses for participants who completed at least 12 items ($\omega_w = .86$, $\omega_b = .94$).

Daily Satisfaction. Participants rated their daily life satisfaction on one item (i.e., "How satisfying was your life today?"; 1 = *not at all*, 7 = *very much*). Single-item measures of life satisfaction are reasonably valid, correlating with other well-being measures, including written interviews, informant reports, and measures of daily affect (Sandvik et al., 1993).

Daily Meaning. Participants rated their daily meaning in life on the two-item Daily Meaning Scale (e.g., "How meaningful did you feel your life was today?"; 1 = *not at all*, 7 = *very much*; Steger et al., 2008).

A composite score was created by averaging responses across the two items (αs ranging from .90 to .97 across days).

Daily Parenting and Child Adjustment

Closeness With Child. To measure relationship closeness between parents and children, parents completed the Inclusion of Other in Self scale (Aron et al., 1992), which presents individuals with two circles reflecting themselves and their child that range from not touching (1) to almost completely overlapping (7). Parents were asked to select the pair of circles that best represents their relationship with their child that day.

Parenting Narratives. Parenting narratives were coded for the level of challenge/difficulty in the interaction, the amount of conflict, and the level of support parents provided their children by two independent coders. Coders were trained to reliability on a separate set of 52 responses to the same prompt, collected for training purposes. After achieving interrater reliability on the training narratives, the two coders each coded 67% of responses, overlapping by 33% to evaluate reliability in the study sample. The full coding manual is available on the Open Science Framework (https://osf.io/yqa38).

Care Difficulty. Coders rated the extent to which the interaction was challenging for either the parent or the child on a scale ranging from 0 (*no challenge described*) to 4 (*complex or intense challenge described*). Interrater reliability was good, average intraclass correlation coefficient (ICC; 2,1) = .83 (range .75–.89).

Conflict Interactions. Coders rated the extent to which the interaction demonstrated a conflict between the parent and the child on a scale ranging from 0 (*no conflict described*) to 4 (*complex description of a parent–child conflict*). Interrater reliability was good, average ICC(2,1) = .77 (range .61–.94).

Supportive Interactions. Finally, coders rated the extent to which the parent provided support, warmth, and kindness toward the child on a scale ranging from 0 (*no support mentioned*) to 4 (*description demonstrates parent's intention to help the child or demonstrate love for the child*). Interrater reliability was moderate, average ICC(2,1) = .67 (range .53–.93).

Transparency and Openness

Our hypotheses, study design, and analyses were not preregistered. We have provided detailed information regarding our sample size determination, data exclusions, manipulations, and measures. Data and study materials can be accessed on the Open Science Framework (https://osf.io/yqa38).

Results

Are Parents' Compassionate and Self-Image Goals Related to Global Well-Being, Parenting, and Child Adjustment?

We conducted regression analyses to evaluate whether parents' compassionate and self-image goals were associated with global well-being (i.e., life satisfaction, perceived stress and anxiety, and depressive symptoms) and parenting and child adjustment (i.e., positive child behavior, negative child behavior, child maladjustment, PRFQ prementalizing, PRFQ certainty about mental states, and PRFQ interest and curiosity) at baseline. Compassionate and self-image goals were included as simultaneous predictors. We present models including all covariates (i.e., parent gender, parent age, number of children, and age of youngest child) here, and simplified models including only compassionate and self-image goals are included in the additional online material (https://osf.io/yqa38). All continuous variables (i.e., compassionate goals, self-image goals, parent age, number of children, and age of youngest child) were mean-centered prior to analysis, and gender was dummy coded with women as the reference group.

Compassionate goals were associated with less perceived stress and anxiety, but not life satisfaction or depressive symptoms (see Table 2). Self-image goals were unrelated to any well-being outcome. Compassionate goals were also associated with parenting and child adjustment (see Table 3), including more positive child behavior, less negative child behavior, lower levels of child maladjustment, lower PRFQ prementalizing, and greater PRFQ interest and curiosity about mental states, but were unrelated to PRFQ certainty. Self-image goals were associated with less positive child behavior, more negative child behavior, greater child maladjustment, greater PRFQ prementalizing, greater PRFQ certainty, and less PRFQ interest and curiosity about mental states. In sum, compassionate goals were largely associated with greater well-being, parenting, and child adjustment, whereas self-image goals were associated with poorer parenting and child adjustment, but not well-being.

Are Parents' Compassionate and Self-Image Goals Related to Daily Well-Being, Parenting, and Child Adjustment?

To evaluate the associations between parents' interpersonal goals and daily well-being, we conducted multilevel models with maximum likelihood estimation to account for repeated measurements within individuals (Singer & Willett, 2003). We included grand-

Table 2
Regression Models Predicting Global Well-Being From Compassionate Goals, Self-Image Goals, and Covariates

	Life satisfaction		Perceived stress and anxiety		Depressive symptom	
Predictor	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI
Compassionate goals	0.26† (0.14)	[−0.02, 0.54]	−0.25** (0.09)	[−0.42, −0.07]	−0.12 (0.49)	[−1.09, 0.85]
Self-image goals	−0.002 (0.10)	[−0.02, 0.54]	0.08 (0.06)	[−0.04, 0.21]	0.48 (0.35)	[−0.20, 1.16]
Parent gender	0.11 (0.20)	[−0.29, 0.51]	−0.25† (0.06)	[−0.50, 0.01]	−1.25† (0.71)	[−2.64, 0.14]
Parent age	−0.02 (0.01)	[−0.05, 0.003]	−0.01 (0.01)	[−0.03, 0.01]	−0.07 (0.05)	[−0.17, 0.02]
Number of children	0.22* (0.10)	[0.02, 0.42]	−0.03 (0.07)	[−0.16, 0.10]	−0.54 (0.36)	[−1.25, 0.16]
Age of youngest child	−0.001 (0.10)	[−0.20, 0.20]	−0.05 (0.07)	[−0.18, 0.08]	0.28 (0.35)	[−0.42, 0.97]
R^2	.04		.05		.04	

Note. Compassionate goals, self-image goals, parent age, number of children, and age of youngest child were mean-centered and included as simultaneous predictors. Parent gender was dummy coded with women as the reference group. *SE* = standard error; CI = confidence interval.
$^{*}p < .05$. $^{**}p < .01$. $^{\dagger}p < .10$.

Table 3
Regression Models Predicting Global Parenting and Child Adjustment From Compassionate Goals, Self-Image Goals, and Covariates

	Positive child behavior		Negative child behavior		Child maladjustment		PRFQ prementalizing		PRFQ certainty		PRFQ interest and curiosity	
Predictor	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI	*B* (*SE*)	95% CI
Compassionate goals	0.58*** (0.07)	[0.44, 0.72]	−0.47*** (0.08)	[−0.62, −0.31]	−0.32*** (0.07)	[−0.46, −0.18]	−0.72*** (0.10)	[−0.92, −0.52]	0.15 (0.10)	[−0.06, 0.35]	0.70*** (0.08)	[0.54, 0.85]
Self-image goals	−0.17*** (0.05)	[−0.26, −0.07]	0.18** (0.06)	[0.07, 0.29]	0.19*** (0.05)	[0.09, 0.29]	0.51*** (0.07)	[0.37, 0.65]	0.20** (0.07)	[0.06, 0.34]	−0.23*** (0.05)	[−0.33, −0.12]
Parent gender	0.01 (0.10)	[−0.19, 0.21]	−0.04 (0.11)	[−0.26, 0.19]	−0.02 (0.10)	[−0.23, 0.18]	0.24† (0.15)	[−0.04, 0.53]	0.13 (0.15)	[−0.15, 0.42]	−0.25* (0.11)	[−0.47, −0.04]
Parent age	−0.02** (0.01)	[−0.03, −0.005]	0.01 (0.01)	[−0.004, 0.03]	0.01 (0.01)	[−0.01, 0.02]	−0.003 (0.01)	[−0.02, 0.02]	0.01 (0.01)	[−0.01, 0.03]	−0.01 (0.01)	[−0.03, 0.004]
Number of children	0.01 (0.05)	[−0.09, 0.11]	−0.05 (0.06)	[−0.16, 0.07]	0.01 (0.05)	[−0.09, 0.12]	0.02 (0.07)	[−0.12, 0.17]	−0.05 (0.07)	[−0.20, 0.09]	−0.07 (0.06)	[−0.18, 0.04]
Age of youngest child	0.03 (0.05)	[−0.07, 0.13]	−0.06 (0.06)	[−0.17, 0.06]	−0.11* (0.05)	[−0.22, −0.01]	−0.16* (0.07)	[−0.31, −0.02]	−0.01 (0.07)	[−0.15, 0.14]	0.04 (0.06)	[−0.07, 0.15]
R^2	.25		.15		.13		.32		.05		.31	

Note. Compassionate goals, self-image goals, parent age, number of children, and age of youngest child were mean-centered and included as simultaneous predictors. Parent gender was dummy coded with women as the reference group. PRFQ = Parental Reflective Functioning Questionnaire; *SE* = standard error; CI = confidence interval.
* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .10$.

mean-centered compassionate and self-image caregiving goals as between-person (Level 2) predictors of daily well-being, parenting, and child adjustment, as well as random intercepts and slopes for day. An autoregressive (AR[1]) residual structure was specified to account for temporal autocorrelation among daily observations. We present models including all covariates (parent age, parent gender, age of youngest child, number of children, and care difficulty) here, and simplified models including only compassionate goals, self-image goals, and day are included in the additional online material (https://osf.io/yqa38).

Compassionate goals were associated with greater positive emotions, empathic emotions, need satisfaction, meaning, and daily satisfaction, along with lower negative emotions. Parents' self-image goals were associated with lower need satisfaction, but no other daily well-being outcomes (see Table 4). Turning to daily parenting and child adjustment, neither parents' compassionate nor self-image goals were associated with closeness with their child or with coder-rated conflict or support in their interactions with their children. In sum, parents' compassionate goals were associated with greater daily well-being but not parenting or child adjustment, and parents' self-image goals were largely unrelated to daily well-being, parenting, or child adjustment (see Table 5).

Are Compassionate and Self-Image Goals Associated With Daily Parental Well-Being, Parenting, and Child Adjustment via Empathic and Negative Emotions?

Next, we evaluated the indirect effects of compassionate and self-image goals on parental well-being, parenting, and child adjustment via empathic and negative emotions using the MLmed macro in SPSS (Rockwood & Hayes, 2017) with maximum likelihood estimation. We estimated a 2-1-1 multilevel mediation to evaluate the effects of compassion and self-image goals (Level 2 predictors) on daily well-being, parenting, and child adjustment (Level 1 outcomes) via empathic and negative emotions (parallel Level 1 mediators). All models included random intercepts for each mediator and outcome, random slopes for day and for the effect of each mediator on each outcome, and unstructured covariance and residual covariance matrices.[1] Compassionate and self-image goals were grand-mean-centered and included as covariates in one another's models. Day was included as a Level 1 covariate with a random slope. Care difficulty was included as a covariate at both Level 1 (person-mean-centered) and Level 2 (grand-mean-centered).[2] This approach estimates between-person fixed effects of compassionate and self-image goals on each mediator (a path) and outcome (c′ paths), both between-person (grand-mean-centered) and within-person (person-mean-centered) effects of each mediator on each outcome (b paths). Indirect effects were

[1] We note two deviations from the planned modeling approach due to convergence issues. The multilevel mediation models estimating the indirect effects of compassionate and self-image goals on daily need satisfaction and support each failed to converge. To address this, we removed the random slope for day each of these models. This simplification allowed the models to converge while preserving estimation of fixed effects required for mediation.

[2] Because the MLmed macro supports only up to three Level 2 covariates, we took a data-driven approach to covariate selection for the multilevel mediation analyses. Specifically, we retained only those covariates that were significantly associated with parents' daily well-being, parenting, or child adjustment in our multilevel models (see Tables 4 and 5). Parent age, parent gender, age of youngest child, and number of children were not significant predictors and were excluded to simplify the models and facilitate convergence.

Table 4
Multilevel Models Predicting Parents' Daily Well-Being From Compassionate Goals, Self-Image Goals, and Covariates

Effect	Parameter	Positive emotion	Negative emotion	Empathic emotion	Psychological need satisfaction	Meaning	Daily satisfaction
		B [95% CI]	*B* [95% CI]	*B* [95% CI]	*B* [95% CI]	*B* [95% CI]	*B* [95% CI]
Fixed effects							
Intercept	γ_{00}	4.93*** [4.59, 5.27]	1.40*** [1.20, 1.60]	4.43*** [4.12, 4.74]	4.00*** [3.87, 4.13]	5.68*** [5.36, 6.01]	5.54*** [5.18, 5.90]
Compassionate goals	γ_{01}	0.40** [0.13, 0.66]	−0.21** [−0.36, −0.06]	0.70*** [0.46, 0.94]	0.30*** [0.19, 0.40]	0.54*** [0.29, 0.80]	0.47*** [0.20, 0.74]
Self-image goals	γ_{02}	0.14 [−0.04, 0.32]	0.05 [−0.05, 0.15]	−0.01 [−0.17, 0.16]	−0.08* [−0.15, −0.01]	−0.03 [−0.21, 0.14]	−0.04 [−0.22, 0.15]
Parent gender	γ_{03}	0.10 [−0.27, 0.47]	0.13 [−0.07, 0.34]	0.27 [−0.07, 0.60]	−0.02 [−0.17, 0.13]	0.01 [−0.35, 0.37]	0.11 [−0.28, 0.49]
Parent age	γ_{04}	−0.01 [−0.03, 0.02]	0.001 [−0.01, 0.02]	0.001 [−0.02, 0.02]	0.001 [−0.009, 0.01]	−0.0002 [−0.03, 0.02]	−0.001 [−0.03, 0.03]
Age of youngest child	γ_{05}	0.05 [−0.13, 0.22]	−0.09† [−0.19, 0.004]	0.02 [−0.14, 0.18]	0.07* [0.0004, 0.14]	0.07 [−0.11, 0.24]	0.11 [−0.07, 0.29]
Number of children	γ_{06}	−0.01 [−0.18, 0.17]	0.05 [−0.05, 0.15]	0.02 [−0.15, 0.18]	−0.03 [−0.10, 0.04]	−0.03 [−0.20, 0.14]	−0.04 [−0.23, 0.14]
Day	γ_{10}	0.02 [−0.02, 0.05]	0.01 [−0.01, 0.03]	0.03† [−0.002, 0.06]	0.003 [−0.01, 0.02]	−0.002 [−0.03, 0.02]	0.02 [−0.02, 0.05]
Care difficulty	γ_{20}	−0.34*** [−0.39, −0.29]	0.27*** [0.24, 0.31]	0.001 [−0.05, 0.05]	−0.11*** [−0.13, −0.09]	−0.16*** [−0.21, −0.12]	−0.24*** [−0.29, −0.18]
Random effects							
Level 1	σ^2_e	0.78*** [0.70, 0.87]	0.33*** [0.30, 0.37]	0.60*** [0.54, 0.67]	0.13*** [0.12, 0.15]	0.65*** [0.58, 0.73]	0.91*** [0.81, 1.01]
	ρ	−0.13 [−0.48, 0.26]	−0.48** [−0.75, −0.07]	−0.45* [−0.74, −0.004]	−0.61*** [−0.76, −0.39]	−0.01 [−0.35, 0.33]	0.18 [−0.18, 0.49]
Level 2	σ^2_0	1.17*** [0.78, 1.77]	0.38*** [0.24, 0.61]	1.14*** [0.80, 1.62]	0.16*** [0.10, 0.24]	1.09*** [0.75, 1.59]	1.44*** [0.96, 2.15]
	σ^2_1	0.01† [0.003, 0.03]	0.005* [0.002, 0.01]	0.01* [0.004, 0.02]	0.01 [−0.002, 0.01]	0.001 [0.0000004, 1.88]	0.01 [0.001, 0.04]
	σ^2_{10}	−0.01 [−0.07, 0.05]	−0.01 [−0.04, 0.01]	−0.03 [−0.08, 0.02]	0.0003 [0.000004, 0.02]	0.01 [−0.03, 0.06]	−0.03 [−0.10, 0.04]

Note. CI = confidence interval.
* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .10$.

estimated at the between-person level using Monte Carlo confidence intervals based on 10,000 samples. See Table 6 for a summary of indirect effects and confidence intervals.

Empathic Emotions

Compassionate goals were associated with greater daily empathic emotions ($b = 0.75$, $SE = 0.12$, $p < .001$), whereas self-image goals were not associated with empathic emotions ($b = -0.04$, $SE = 0.08$, $p = .64$). In turn, empathic emotions were associated with greater positive emotions (within-person: $b = 0.51$, $SE = 0.04$, $p < .001$; between-person: $b = 0.81$, $SE = 0.05$, $p < .001$), meaning (within-person: $b = 0.33$, $SE = 0.04$, $p < .001$; between-person $b = 0.52$, $SE = 0.05$, $p < .001$), daily satisfaction (within-person: $b = 0.41$, $SE = 0.04$, $p < .001$; between-person: $b = 0.53$, $SE = 0.06$, $p < .001$), and closeness (within-person: $b = 0.53$, $SE = 0.06$, $p < .001$; between-person: $b = 0.31$, $SE = 0.09$, $p = .001$) at both between- and within-person levels. Interestingly, empathic emotions predicted reduced need satisfaction ($b = -0.04$, $SE = 0.01$, $p = .005$) at the within-person level but greater need satisfaction ($b = 0.19$, $SE = 0.02$, $p < .01$) at the between-person level. In other words, on days when parents felt more empathic emotions relative to their own average, they reported lower need satisfaction, but parents who felt greater empathic emotions across the week compared to other parents in the sample reported greater need satisfaction across the week. In addition, empathic emotions predicted greater support ($b = 0.49$, $SE = 0.05$, $p < .001$) at the within-person level but was unrelated to support ($b = 0.07$, $SE = 0.05$, $p = .12$) at the between-person level. Empathic emotions were not associated with conflict at either the within- or between-person level ($|bs| < 0.03$, $p > .34$). The indirect effects of compassionate goals via empathic emotions on greater daily well-being (i.e., positive emotions, meaning, daily satisfaction, need satisfaction) and greater parenting and child adjustment (i.e., closeness) were statistically significant, but none of the indirect effects of self-image goals on daily well-being or parenting and child adjustment via empathic emotions were significant.

Negative Emotions

Compassionate goals were associated with lower daily negative emotions ($b = -0.19$, $SE = 0.07$, $p = .01$), whereas self-image goals were not associated with daily negative emotions ($b = 0.07$, $SE = 0.05$, $p = .18$). In turn, negative emotions were associated with lower positive emotions (within-person: $b = -0.14$, $SE = 0.06$, $p = .02$; between-person: $b = -0.47$, $SE = 0.07$, $p < .001$), meaning (within-person: $b = -0.54$, $SE = 0.05$, $p < .001$; between-person: $b = -0.89$, $SE = 0.08$, $p < .001$), daily satisfaction (within-person: $b = -0.80$, $SE = 0.07$, $p < .001$; between-person: $b = -0.93$, $SE = 0.09$, $p < .001$), need satisfaction (within-person: $b = -0.31$, $SE = 0.01$, $p < .001$; between-person: $b = -0.49$, $SE = 0.03$, $p < .001$), and closeness (within-person: $b = -0.47$, $SE = 0.10$, $p < .001$; between-person: $b = -0.64$, $SE = 0.14$, $p < .001$). Negative emotions were also associated with less conflict ($b = -0.24$, $SE = 0.04$, $p < .001$) and greater support ($b = 0.28$, $SE = 0.06$, $p < .001$) at the within-person level but were unrelated to conflict ($b = -0.06$, $SE = 0.04$, $p = .19$) or support ($b = 0.01$, $SE = 0.07$, $p = .85$) at the between-person level. The indirect effects of compassionate goals via lower daily negative emotions on greater well-being (i.e., positive emotions, meaning, daily satisfaction, need satisfaction) and better parenting and child adjustment (i.e.,

Table 5

Multilevel Models Predicting Daily Parenting and Child Adjustment From Compassionate Goals, Self-Image Goals, and Covariates

Effect	Parameter	Closeness with child	Conflict	Support
		B [95% CI]	*B* [95% CI]	*B* [95% CI]
Fixed effects				
Intercept	γ_{00}	5.10*** [4.66, 5.53]	−0.49*** [−0.66, −0.32]	2.36*** [2.10, 2.62]
Compassionate goals	γ_{01}	0.31† [−0.004, 0.63]	0.08 [−0.01, 0.17]	0.13 [−0.03, 0.29]
Self-image goals	γ_{02}	0.03 [−0.18, 0.24]	0.05 [−0.01, 0.11]	−0.11† [−0.22, 0.003]
Parent gender	γ_{03}	−0.03 [−0.47, 0.41]	0.13* [0.001, 0.25]	−0.03 [−0.26, 0.20]
Parent age	γ_{04}	0.01 [−0.02, 0.04]	−0.0004 [−0.01, 0.01]	0.01 [−0.003, 0.03]
Age of youngest child	γ_{05}	−0.06 [−0.27, 0.15]	−0.05 [−0.10, 0.01]	−0.03 [−0.14, 0.08]
Number of children	γ_{06}	−0.14 [−0.35, 0.07]	0.02 [−0.04, 0.08]	0.01 [−0.10, 0.11]
Day	γ_{10}	0.03 [−0.01, 0.07]	0.06*** [0.04, 0.08]	−0.04* [−0.07, −0.01]
Care difficulty	γ_{20}	−0.14*** [−0.20, −0.07]	0.40*** [0.37, 0.44]	0.06* [0.01, 0.11]
Random effects				
Level 1	σ^2_ϵ	1.36*** [1.22, 1.52]	0.45*** [0.40, 0.50]	0.85*** [0.76, 0.95]
	ρ	−0.30 [−0.61, 0.08]	−0.16 [−0.55, 0.29]	0.14 [−0.30, 0.53]
Level 2	σ^2_0	2.41*** [1.63, 3.56]	0.29** [0.15, 0.56]	0.52** [0.26, 1.05]
	σ^2_1	0.02* [0.01, 0.05]	0.004 [0.001, 0.02]	0.01 [0.001, 0.03]
	σ^2_{10}	−0.12† [−0.23, 0.004]	−0.03† [−0.06, 0.0002]	−0.03 [−0.09, 0.02]

Note. CI = confidence interval.
* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .10$.

greater closeness) were statistically significant. None of the indirect effects of self-image goals via daily negative emotions on daily well-being, parenting, and child adjustment were statistically significant.

In sum, parents' compassionate goals predicted greater daily well-being, parenting, and child adjustment via greater empathic emotions and lower negative emotions, whereas self-image goals were unrelated to empathic or negative emotions and, in turn, to well-being, parenting, or child adjustment.

Discussion

This 9-day daily experience study is among the first to evaluate parents' compassionate and self-image goals in relation to their children and their associations with parental well-being, parenting, and child adjustment overall and throughout the week. Consistent with prior research (Canevello & Crocker, 2015), compassionate and self-image goals were positively associated with one another,

Table 6

Indirect Effects of Compassionate Goals and Self-Image Goals via Empathic and Negative Emotions on Parents' Daily Well-Being, Parenting, and Child Adjustment

Effect	Compassionate goal		Self-image goal	
	Effect (*SE*)	95% CI	Effect (*SE*)	95% CI
Positive emotions				
Empathic emotions	0.60*** (0.10)	[0.41, 0.81]	−0.03 (0.07)	[−0.16, 0.10]
Negative emotions	0.09* (0.04)	[0.02, 0.17]	−0.03 (0.02)	[−0.08, 0.01]
Meaning				
Empathic emotions	0.39*** (0.07)	[0.25, 0.54]	−0.02 (0.04)	[−0.10, 0.06]
Negative emotions	0.16** (0.07)	[0.03, 0.30]	−0.06 (0.04)	[−0.14, 0.03]
Daily satisfaction				
Empathic emotions	0.39*** (0.08)	[0.25, 0.55]	−0.02 (0.04)	[−0.10, 0.06]
Negative emotions	0.17** (0.07)	[0.03, 0.31]	−0.06 (0.05)	[−0.15, 0.03]
Daily need satisfaction				
Empathic emotions	0.14*** (0.03)	[0.09, 0.20]	−0.01 (0.02)	[−0.04, 0.02]
Negative emotions	0.09* (0.04)	[0.02, 0.16]	−0.03 (0.02)	[−0.08, 0.02]
Closeness				
Empathic emotions	0.23** (0.08)	[0.09, 0.40]	−0.01 (0.03)	[−0.07, 0.04]
Negative emotions	0.11* (0.05)	[0.02, 0.23]	−0.04 (0.03)	[−0.11, 0.02]
Conflict				
Empathic emotions	−0.02 (0.02)	[−0.06, 0.02]	−0.01 (0.03)	[−0.07, 0.04]
Negative emotions	0.01 (0.01)	[−0.005, 0.03]	−0.04 (0.03)	[−0.11, 0.02]
Support				
Empathic emotions	0.06 (0.04)	[−0.01, 0.13]	−0.002 (0.01)	[−0.02, 0.01]
Negative emotions	−0.002 (0.01)	[−0.03, 0.03]	0.001 (0.01)	[−0.01, 0.01]

Note. *SE* = standard error; CI = confidence interval.
* $p < .05$. ** $p < .01$. *** $p < .001$.

yet they were distinctly associated with well-being, parenting, and child adjustment. Specifically, we found that parents' compassionate goals were associated with both global and daily well-being, along with more positive parenting and child adjustment. These positive associations with intrapersonal and interpersonal well-being were explained in part by their associations with greater empathic emotions and fewer negative emotions. By contrast, parents' self-image goals were associated with poorer parenting and child adjustment overall, but they were largely unrelated to global or daily well-being, nor were they related to daily parenting and child adjustment.

Compassionate Goals

The findings that parents' compassionate goals in relation to their children were associated with well-being, parenting, and child adjustment contribute to a growing body of research demonstrating the benefits of giving to others (e.g., Crocker et al., 2017). Prior research reveals that prosocial behavior (i.e., actions to support others) improves well-being and relationship quality (Deci et al., 2006; Nelson et al., 2016); however, this prior work focuses primarily on interdependent relationships among adults, such as friends or romantic partners. Parent–child relationships are unique because children are dependent on their parents to provide care. Thus, the actions that may seem like an act of kindness within interdependent relationships, such as preparing a meal for a friend, may be perceived as an obligation within parent–child relationships. Accordingly, considering specific acts of compassion or support may not predict well-being within parent–child relationships. Instead, the motivation behind such care may be more relevant to parents' well-being and relationship functioning.

Indeed, we found that parents' compassionate goals in relation to their children—such as being constructive, supportive, and compassionate about a child's weaknesses—were associated with their own well-being, parenting, and child adjustment in both global and daily reports, as well as self-reported outcomes and coded narrative descriptions of caregiving experiences. In terms of global well-being, parents' compassionate goals were associated with lower perceived stress and anxiety, but not life satisfaction or depressive symptoms. In terms of parenting and child adjustment, parents with more compassionate goals also reported that their children were better emotionally adjusted and behaved more positively and less negatively. Moreover, parents' compassionate goals were associated with reflective functioning skills, including greater interest and curiosity about their child's mental states and greater understanding of their child's behavior. To our knowledge, this study is the first to link parents' compassionate goals with reflective functioning, which has been associated with a host of positive outcomes, including children's attachment security, parental empathy, and supportive parenting behavior (Borelli et al., 2021; Luyten et al., 2017).

Parents' compassionate goals were also robustly associated with parents' well-being, parenting, and child adjustment in daily reports. Specifically, parents' compassionate goals were associated with more daily positive emotions, empathic emotions, life satisfaction, meaning, and need satisfaction and with lower daily negative emotions. These findings parallel existing research demonstrating that compassionate goals are associated with emotional well-being in other contexts (Crocker et al., 2017). In our study, parents with more compassionate goals felt closer to their children on a daily basis via greater empathic emotions and reduced negative emotions; however, compassionate goals were not associated with daily conflict or support. These findings converge with prior research demonstrating that parents' pursuit of child love and security goals were associated with parental well-being and rewarding caregiving experiences (Le et al., 2019). Relatedly, adolescents felt more loved by their parents on days their parents reported more support, regardless of whether they also reported conflict (Coffey et al., 2022). Thus, to the extent that compassionate goals encourage parents to engage in more supportive parenting practices, their children may feel more loved.

Our findings highlight empathic and negative emotions as two possible factors involved in these associations. Parents with greater compassionate goals felt more tenderness, sympathy, and compassion along with less frustration, sadness, and anxiety throughout the week, which were in turn associated with enhanced well-being, parenting, and child adjustment outcomes. These findings are consistent with prior research demonstrating the relevance of parental empathy for child development, including child attachment security and social/behavioral competence (Borelli et al., 2021; Meng et al., 2020). Conversely, exposure to parents' negative emotions has been linked to children's emotion regulation capabilities (Aktar & Bögels, 2017), which may further deteriorate parent–child relationship functioning. Additional research on other possible mechanisms, such as parenting behavior, would be informative.

Self-Image Goals

In contrast to compassionate goals, parents' self-image goals were less consistently associated with parents' well-being, parenting, and child adjustment. Parents' self-image goals were associated with greater parent-reported child negative behavior and maladjustment and lower parent-reported child positive behavior, as well as poorer reflective functioning capabilities (i.e., greater prementalizing, less interest, and curiosity in mental states). Given the correlational nature of these findings, parents of children with more behavioral problems may be more concerned with how their child's actions reflect on their capabilities as a parent. Notably, however, prior research revealed that parents of children with autism spectrum disorder reported similar levels of self-image goals as a comparison sample of parents (Conti, 2015). Alternatively, self-image goals within adult relationships have been linked to a range of negative relational outcomes, such as greater hostility (Crocker et al., 2017). In the parent–child context, this dynamic may undermine parents' ability to effectively guide their children's behavior; however, parents' self-image goals were unrelated to most indicators of global and daily well-being, nor were they related to daily parenting and child adjustment.

Strengths, Limitations, and Future Directions

This study contributes to the limited literature on compassionate and self-image goals in parenting by using a relatively large sample and combining quantitative survey measures with qualitative, coder-rated daily narratives. Collecting a variety of parent-reported data across 9 days reduced retrospective bias and provided insight into parents' daily lived experiences. Even within the constraints of parent report, the diversity of indicators (e.g., emotions, relationship closeness, PRF, perceptions of children's behavior) offers a multidimensional portrait of family functioning than reliance on a single outcome.

By incorporating multiple indicators of parents' well-being, parenting, and child adjustment, our approach allowed us to assess the consistency of effects across diverse outcomes and, in turn, evaluate the robustness of these patterns. Compassionate goals showed a relatively robust profile, with associations that replicated across most indicators. Conversely, self-image goals exhibited a more differentiated pattern, with associations that were generally weaker or nonsignificant and that varied by domain and by specific measures, suggesting that the implications of self-image-driven parenting goals may be more context-dependent. Thus, the inclusion of multiple indicators enhances the validity of our conclusions by demonstrating which patterns are consistent across measures and domains and which are domain-specific.

At the same time, several limitations warrant caution. Because all measures were parent-reported, including the coded narratives, findings reflect parents' perceptions rather than direct observation of parent–child interactions. These perceptions may be influenced by parents' own emotions, well-being, goals, or social desirability. Future research could incorporate observational methods or child-reported outcomes to provide another perspective of parenting and child adjustment. Moreover, due to the correlational nature of these findings, we cannot establish whether parents' compassion causes improvements in their well-being and parenting outcomes. Experimental studies would be valuable in determining whether fostering compassionate or self-image goals affects parental well-being and relationship dynamics.

Additionally, self-image goals as measured in the present study primarily reflect attempts to maintain one's self-image within parent–child interactions. This approach is consistent with prior measures of self-image goals in other relationships (Crocker & Canevello, 2008); however, self-image goals in parenting may also involve parents' attempts to maintain a desirable image as a parent in the eyes of others. For example, given cultural pressures for intensive parenting (Hays, 1998), parents may wish for others to view them as a "good parent" who is highly involved in their child's life. Additional research evaluating parents' attempts to maintain their parenting self-image to others beyond their child would be informative.

Furthermore, although we employed a daily diary design, our analyses primarily examined between-person differences in goals and outcomes. This reflects both the secondary nature of the analyses and the available data set, in which compassionate and self-image goals were measured only at baseline. We therefore focused on the relatively stable aspects of parents' caregiving goals. However, prior research suggests that goals can fluctuate meaningfully from day to day (Crocker et al., 2017), and examining these fluctuations could provide new insights into how situational contexts shape parenting motivation and vice versa. Additionally, our well-being indicators were general rather than parenting-specific (e.g., parenting stress, parenting satisfaction). More research incorporating parenting-specific well-being outcomes would be informative. Finally, although we included parents from diverse backgrounds, many of whom are underrepresented in parenting research (e.g., single parents, fathers), the findings presented here primarily represent the experiences of White, middle-class families living in the United States. Research including more diverse samples is needed.

Implications and Conclusion

The present study suggests that compassionate goals in parenting are associated with more favorable psychological and relational patterns for parents and their families. Maintaining parental well-being while simultaneously fostering positive parenting and child adjustment is a crucial societal challenge. Creating environments that support and encourage compassionate goals in parenting would be valuable. Societal norms and expectations, especially related to parenting, may inadvertently pressure parents to adopt self-image goals, emphasizing external validation or performance-based success rather than intrinsic care and connection. Fostering compassion-based parenting norms may contribute to creating healthier, more resilient families.

References

Aktar, E., & Bögels, S. M. (2017). Exposure to parents' negative emotions as a developmental pathway to the family aggregation of depression and anxiety in the first year of life. *Clinical Child and Family Psychology Review*, *20*(4), 369–390. https://doi.org/10.1007/s10567-017-0240-7

Arend, M. G., & Schäfer, T. (2019). Statistical power in two-level models: A tutorial based on Monte Carlo simulation. *Psychological Methods*, *24*(1), 1–19. https://doi.org/10.1037/met0000195

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*(4), 596–612. https://doi.org/10.1037/0022-3514.63.4.596

Ashton-James, C. E., Kushlev, K., & Dunn, E. W. (2013). Parents reap what they sow: Child-centrism and parental well-being. *Social Psychological and Personality Science*, *4*(6), 635–642. https://doi.org/10.1177/1948550613479804

Beck, A. T., & Steer, R. A. (1984). Internal consistencies of the original and revised Beck Depression Inventory. *Journal of Clinical Psychology*, *40*(6), 1365–1367. https://doi.org/10.1002/1097-4679(198411)40:6<1365::AID-JCLP2270400615>3.0.CO;2-D

Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, *54*(1), 579–616. https://doi.org/10.1146/annurev.psych.54.101601.145030

Borelli, J. L., Stern, J. A., Marvin, M. J., Smiley, P. A., Pettit, C., & Samudio, M. (2021). Reflective functioning and empathy among mothers of school-aged children: Charting the space between. *Emotion*, *21*(4), 783–800. https://doi.org/10.1037/emo0000747

Canevello, A., & Crocker, J. (2015). How self-image and compassionate goals shape intrapsychic experiences. *Social and Personality Psychology Compass*, *9*(11), 620–629. https://doi.org/10.1111/spc3.12206

Canevello, A., & Crocker, J. (2020). Prosocial orientations: Distinguishing compassionate goals from other constructs. *Frontiers in Psychology*, *11*, Article 538165. https://doi.org/10.3389/fpsyg.2020.538165

Chen-Bouck, L., Patterson, M. M., Qiao, B., & Peng, A. (2023). Evaluation of the effectiveness of an empathy training on empathy skills, life satisfaction, and relationship quality for Chinese adolescents and their mothers: A mixed methods study. *Journal of Adolescent Research*, *38*(4), 591–631. https://doi.org/10.1177/07435584211064209

Coffey, J. K., Xia, M., & Fosco, G. M. (2022). When do adolescents feel loved? A daily within-person study of parent–adolescent relations. *Emotion*, *22*(5), 861–873. https://doi.org/10.1037/emo0000767

Cohen, S., Kamarck, T., & Mermelstein, R. (1994). Perceived Stress Scale. In S. Cohen, R. C. Kessler, & L. U. Gordon (Eds.), *Measuring stress: A guide for health and social scientists* (pp. 235–283). Oxford University Press.

Conti, R. (2015). Compassionate parenting as a key to satisfaction, efficacy, and meaning among mothers of children with Autism. *Journal of Autism and Developmental Disorders*, *45*(7), 2008–2018. https://doi.org/10.1007/s10803-015-2360-6

Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals.

Journal of Personality and Social Psychology, *95*(3), 555–575. https://doi.org/10.1037/0022-3514.95.3.555

Crocker, J., Canevello, A., & Brown, A. A. (2017). Social motivation: Costs and benefits of selfishness and otherishness. *Annual Review of Psychology*, *68*(1), 299–325. https://doi.org/10.1146/annurev-psych-010416-044145

Deci, E. L., La Guardia, J. G., Moller, A. C., Scheiner, M. J., & Ryan, R. M. (2006). On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin*, *32*(3), 313–327. https://doi.org/10.1177/0146167205282148

Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology*, *47*(5), 1105–1117. https://doi.org/10.1037/0022-3514.47.5.1105

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302. https://doi.org/10.1037/0033-2909.125.2.276

Dix, T. (1991). The affective organization of parenting: Adaptive and maladaptive processes. *Psychological Bulletin*, *110*(1), 3–25. https://doi.org/10.1037/0033-2909.110.1.3

Duarte, J., & Pinto-Gouveia, J. (2015). Focusing on self or others has different consequences for psychological well-being: A longitudinal study of the effects of distinct interpersonal goals. *Journal of Social and Clinical Psychology*, *34*(9), 809–825. https://doi.org/10.1521/jscp.2015.34.9.809

Eibach, R. P., & Mock, S. E. (2011). Idealizing parenthood to rationalize parental investments. *Psychological Science*, *22*(2), 203–208. https://doi.org/10.1177/0956797610397057

Hardee, J. T. (2003). An overview of empathy. *The Permanente Journal*, *7*(4), 51–54. https://doi.org/10.7812/TPP/03-072

Hays, S. (1998). *The cultural contradictions of motherhood*. Yale University Press.

Jiang, T., Canevello, A., & Crocker, J. (2023). How relationships foster growth: Compassionate goals predict growth-seeking through perceived available support independent of relationship security. *Personality and Social Psychology Bulletin*, *49*(6), 852–870. https://doi.org/10.1177/01461672221080949

Kim, C. N., & Kerr, M. L. (2024). Different patterns of endorsement of intensive mothering beliefs: Associations with parenting guilt and parental burnout. *Journal of Family Psychology*, *38*(7), 1098–1107. https://doi.org/10.1037/fam0001241

Kirby, J. N., Grzazek, O., & Gilbert, P. (2019). The role of compassionate and self-image goals in predicting psychological controlling and facilitative parenting styles. *Frontiers in Psychology*, *10*, Article 1041. https://doi.org/10.3389/fpsyg.2019.01041

Le, B. M., & Impett, E. A. (2015). The rewards of caregiving for communally motivated parents. *Social Psychological and Personality Science*, *6*(7), 758–765. https://doi.org/10.1177/1948550615581498

Le, B. M., & Impett, E. A. (2019). Parenting goal pursuit is linked to emotional well-being, relationship quality, and responsiveness. *Journal of Social and Personal Relationships*, *36*(3), 879–904. https://doi.org/10.1177/0265407517747417

Lishner, D. A., Batson, C. D., & Huss, E. (2011). Tenderness and sympathy: Distinct empathic emotions elicited by different forms of need. *Personality and Social Psychology Bulletin*, *37*(5), 614–625. https://doi.org/10.1177/0146167211403157

Luthar, S. S., & Ciciolla, L. (2015). Who mothers mommy? Factors that contribute to mothers' well-being. *Developmental Psychology*, *51*(12), 1812–1823. https://doi.org/10.1037/dev0000051

Luyten, P., Mayes, L. C., Nijssens, L., & Fonagy, P. (2017). The Parental Reflective Functioning Questionnaire: Development and preliminary validation. *PLOS ONE*, *12*(5), Article e0176218. https://doi.org/10.1371/journal.pone.0176218

Meng, K., Yuan, Y., Wang, Y., Liang, J., Wang, L., Shen, J., & Wang, Y. (2020). Effects of parental empathy and emotion regulation on social competence and emotional/behavioral problems of school-age children. *Pediatric Investigation*, *4*(2), 91–98. https://doi.org/10.1002/ped4.12197

National Research Council. (2019). Fostering caregiver well-being toward healthy child development. In J. E. DeVoe, A. Geller, & Y. Negussie (Eds.), *Vibrant and healthy kids: Aligning science, practice, and policy to advance health equity* (pp. 233–300). The National Academies Press. https://doi.org/10.17226/25466

Nelson, S. K., Kushlev, K., & Lyubomirsky, S. (2014). The pains and pleasures of parenting: When, why, and how is parenthood associated with more or less well-being? *Psychological Bulletin*, *140*(3), 846–895. https://doi.org/10.1037/a0035444

Nelson, S. K., Layous, K., Cole, S. W., & Lyubomirsky, S. (2016). Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing. *Emotion*, *16*(6), 850–861. https://doi.org/10.1037/emo0000178

Nelson-Coffey, S. K., & Cavanaugh, L. A. (2022). Baby fever: Situational cues shift the desire to have children via empathic emotions. *Journal of Experimental Psychology: Applied*, *28*(2), 438–450. https://doi.org/10.1037/xap0000381

Nelson-Coffey, S. K., & Coffey, J. K. (2018). *Parenting diary study, 2018* [Data set]. UNC Dataverse. https://doi.org/10.15139/S3/CMMGBP

Pu, D. F., & Rodriguez, C. M. (2023). Child and parent factors predictive of mothers' and fathers' perceived family functioning. *Journal of Family Psychology*, *37*(1), 121–131. https://doi.org/10.1037/fam0000971

Rizzo, K. M., Schiffrin, H. H., & Liss, M. (2013). Insight into the parenthood paradox: Mental health outcomes of intensive mothering. *Journal of Child and Family Studies*, *22*(5), 614–620. https://doi.org/10.1007/s10826-012-9615-z

Rockwood, N. J., & Hayes, A. F. (2017, 25–28 May). *MLmed: An SPSS macro for multilevel mediation and conditional process analysis* [Poster presentation]. Annual meeting of the Association of Psychological Science (APS), Boston, MA, United States.

Sandvik, E., Diener, E., & Seidlitz, L. (1993). Subjective well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality*, *61*(3), 317–342. https://doi.org/10.1111/j.1467-6494.1993.tb00283.x

Shanafelt, T. D., West, C., Zhao, X., Novotny, P., Kolars, J., Habermann, T., & Sloan, J. (2005). Relationship between increased personal well-being and enhanced empathy among internal medicine residents. *Journal of General Internal Medicine*, *20*(7), 559–564. https://doi.org/10.1007/s11606-005-0102-8

Sheldon, K. M., & Hilpert, J. C. (2012). The Balanced Measure of Psychological Needs (BMPN) scale: An alternative domain general measure of need satisfaction. *Motivation and Emotion*, *36*(4), 439–451. https://doi.org/10.1007/s11031-012-9279-4

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195152968.001.0001

Slatcher, R. B., & Trentacosta, C. J. (2012). Influences of parent and child negative emotionality on young children's everyday behaviors. *Emotion*, *12*(5), 932–942. https://doi.org/10.1037/a0027148

Smith, C. V., Bilsky, S. A., Fuentes, J. D., & Hadden, B. W. (2023). Looking good or being good? Parenting goals predict need satisfaction and frustration in mothers and fathers. *Journal of Child and Family Studies*, *32*(8), 2444–2452. https://doi.org/10.1007/s10826-023-02604-1

Spielberger, C. D., Gonzalez-Reigosa, F., Martinez-Urrutia, A., Natalicio, L. F., & Natalicio, D. S. (1971). The State-Trait Anxiety Inventory. *Revista Interamericana de Psicologia/Interamerican Journal of Psychology*, *5*(3–4). https://journal.sipsych.org/index.php/IJP/article/view/620

Steger, M. F., Kashdan, T. B., & Oishi, S. (2008). Being good by doing good: Daily eudaimonic activity and well-being. *Journal of Research in Personality*, *42*(1), 22–42. https://doi.org/10.1016/j.jrp.2007.03.004

Venard, G., Zimmermann, G., Antonietti, J. P., Nunes, C. E., & Van Petegem, S. (2024). Parenting under pressure: Associations between perceived social pressure and parental involvement among mothers and fathers. *Journal of Child and Family Studies*, *33*(12), 3813–3825. https://doi.org/10.1007/s10826-024-02945-5

Waters, L. (2020). Using positive psychology interventions to strengthen family happiness: A family systems approach. *The Journal of Positive Psychology*, *15*(5), 645–652. https://doi.org/10.1080/17439760.2020.1789704

Weidman, A. C., & Tracy, J. L. (2020). A provisional taxonomy of subjectively experienced positive emotions. *Affective Science*, *1*(2), 57–86. https://doi.org/10.1007/s42761-020-00009-7

Wen, X., Zhang, Q., Zhou, Y., Du, J., & Xu, W. (2022). Mindfulness and intimate relationship satisfaction in daily life: The role of empathy. *PsyCh Journal*, *11*(4), 500–509. https://doi.org/10.1002/pchj.535

Yue, Z., & Yang, J. Z. (2021). Compassionate goals, prosocial emotions, and prosocial behaviors during the COVID-19 pandemic. *Journal of Community & Applied Social Psychology*, *32*(3), 476–489. https://doi.org/10.1002/casp.2507

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