

Parenting Adolescents in Times of a Pandemic: Changes in Relationship Quality, Autonomy Support, and Parental Control?

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This Dutch multi-informant study examined effects of the first COVID-19 lockdown (LD; e.g., school closure and social restrictions) on parent–adolescent relationships. Four biweekly measurements before and 4 biweekly measurements during the LD were collected among adolescents ($N = 179$, $M_{\text{age}} = 14.26$ years, 69% girls) and their parents ($N = 144$, $M_{\text{age}} = 47.01$ years, 81% female). Parents' educational level was relatively diverse: 12% low (high school or lower), 33% medium (vocational training), and 55% high (college or university). Adolescents and parents reported on parental support, parent–adolescent conflict, autonomy support, psychological control, behavioral control, and time spent on various activities. Adolescents spent more time with their parents during LD (before $M = 8.6$ hr, during $M = 12.7$ hr), but less time with friends (before $M = 8.1$ hr, during $M = 2.1$ hr), and reported on average 13 COVID-19-related rules. Preregistered piecewise growth models confirmed that autonomy support decreased immediately during the LD, but no mean level changes were observed in the other relationship dimensions. During the first 2 months of the LD, parents reported gradual increases in autonomy support and decreases in behavioral control. Moreover, significant differences between families were found in sudden and more gradual relationship changes, which correlated strongly with pre-LD characteristics of the relationship, and in some models with adolescent oppositional defiance and legitimacy beliefs. In sum, findings suggest resilience in most families, but also heterogeneity: Some families were negatively affected, and others were positively affected. A tailored approach is therefore needed to mitigate the impact of COVID-19 on family functioning.

Keywords: coronavirus, parenting, adolescents, adaptation, longitudinal

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At the time of publication of this article (June 2021), the 2019 coronavirus (COVID-19) has caused more than 3.8 million deaths

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worldwide. Over the last year, many governments took extensive preventive measures, which had a disruptive effect on the daily lives of families with children. In various countries there were periods of a societal lockdown (LD), in which adolescents could not physically attend school, had to stay at home instead, and were discouraged from having face-to-face contact with their friends. It is still largely unexplored territory how such sudden changes in the day-to-day routines of families, combined with uncertainty regarding the pandemic, may have impacted parent–adolescent relationships. Therefore, the overarching aim of this longitudinal study among Dutch families was to provide a preregistered examination to which extent parent–adolescent relationships were affected by COVID-19 LD measures, how families differ from each other, and which factors may explain differences in family risk and resilience.

Parent–Adolescent Relationships in Adolescence

In the larger literature on parenting adolescents (Smetana, 2017), three key dimensions of parent–adolescent relationships have been linked to adolescent well-being and positive development. That is, (a) relationship quality, including parental warmth (i.e., provision of affection, intimacy, comfort, and guidance) and parent–child conflict (i.e., quarreling, antagonism; Furman & Buhrmester, 1985); (b)

autonomy support (i.e., promotion of volitional functioning) versus psychological control (i.e., intrusiveness, guilt induction, and love withdrawal; Soenens et al., 2017); and (c) behavioral control (i.e., rules setting to regulate child's behavior; Smetana, 2017). A large amount of empirical studies suggests that positive adolescent development is correlated with parent–adolescent relationships characterized by (a) good relationship quality, in terms of relatively high levels of parental warmth and relatively low levels of conflicts, (b) autonomy supportive parenting rather than psychological controlling parenting, and (c) a level of behavioral control that matches with the developmental needs of the adolescent (e.g., Steinberg & Silk, 2002).

In each of these three parent–child relationship dimensions, adolescence (age range = 10–24 years) is marked by noticeable changes, which are partially driven by an adolescent's increasing need for autonomy (Soenens et al., 2017). From middle adolescence onward, relationships typically change from a hierarchically oriented relationship with a final say for the parent, to a more horizontal relationship in which both have an equal say (Branje, 2018; Koepke & Denissen, 2012; Smetana et al., 2006). More specifically the level of parental behavioral control and monitoring over issues such as friendships, money, and leisure activities gradually decreases over time (Lionetti et al., 2019). However, as parents and adolescents may have different expectancies regarding what an adolescent can decide for him- or herself, the adolescent's growing demand for independence may also give rise to conflicts and a temporary dip in parental warmth in middle adolescence (Branje, 2018; De Goede et al., 2009; Laursen et al., 1998).

Although raising an adolescent may cause daily hassles and conflicts over mundane issues, the majority of families are successful in making the transition from child dependence on parents to adolescent behavioral independence and volitional functioning (Meeus, 2016; Smetana et al., 2006). Hence, most families are in a relative equilibrium of family functioning under 'normal' circumstances. The impact of the COVID-19 LD upon this daily equilibrium in three key dimensions of parent–child relationships (i.e., relationship quality, autonomy supportive parenting, and behavioral control), however, is unknown. In the following, theoretical arguments and first empirical indications for such an impact are briefly discussed.

COVID-19 and Parent–Adolescent Relationships

The Family Adjustment and Adaptation Response (FAAR) model (Patterson, 2002) integrates family stress theory with work on individual and family resilience (Masten, 2001). According to this model, the daily equilibrium of family functioning results from a balance between demands and capabilities. Demands include normative and non-normative stressors, and ongoing family strains (e.g., daily hassles). Capabilities include coping behaviors of the individuals and family resources, including financial means.

Most families have an adaptive capacity when they are exposed to adversities or stressors (Henry et al., 2015; Patterson, 2002), such as a sudden increase in family demands to balance work and family life, a heightened levels of uncertainty, worry, and a drastic change of daily routines due to a LD (Masten & Motti-Stefanidi, 2020). The FAAR model distinguishes short-term from longer-term responses. In the short term, a temporary situation in which demands exceed capabilities may cause a disequilibrium in the daily family functioning or a crisis. However, in the longer term, the equilibrium of families can be restored, for instance by reducing demands (e.g., conflict resolution) or increasing capabilities

(e.g., coping behaviors). This process is called family adaptation. Here, we define successful family adaptation as the continued ability to promote development of the individual family members in light of adversity or stress (Patterson, 1988). Finally, heterogeneity between families is likely in these short-term disequilibrium and long-term adaptation processes. Given that the COVID-19 pandemic has only recently spread across the globe, it is still an open question to which extent it has disturbed the equilibrium of family functioning, and whether or not families manage to adapt.

Governmental-imposed LD measures could have triggered changes in the parent–adolescent relationship, as they may have increased demands and daily hassles. Novel rules installed by the government could demand that parents and adolescents renegotiate behavioral independence in domains such as personal hygiene (e.g., washing hands) or spending leisure time with peers. Whereas adolescents tend to find rules legitimate if they are well-explained and age-appropriate (Smetana & Asquith, 1994), adolescents were now faced with sudden restrictions of their freedom, which may lead to psychological reactance and oppositional defiance (Van Petegem et al., 2015). Earlier studies in normal circumstances have shown, for instance, that prohibition of contacts with friends could elicit oppositional defiance among adolescents as well as parent–adolescent conflicts (Keijsers et al., 2012; Van Petegem et al., 2017). Hence, apart from an increase in behavioral control by parents to reinforce rules at home (e.g., not seeing friends), we expected an increase in parent–adolescent conflict and a decrease in parental warmth as a result of the LD.

The pandemic may also cause negative feelings among parents (Achterberg et al., 2021) and adolescents (Magson et al., 2020). A recent review suggested that quarantine measures may lead to feelings of boredom and anger (Brooks et al., 2020). For adolescents, feelings of loneliness during the LD, in combination with the possibility that they receive less peer support because of social distancing, may place them at risk for other mental health problems such as depressive symptoms or (social) anxiety (Ellis et al., 2020; Loades et al., 2020; Marques de Miranda et al., 2020). Negative feelings in families may spill over from adolescents to parents and to the quality of their interaction (Russell et al., 2020; Van Eldik et al., 2020). Moreover, parents may experience highlighted stress levels, possibly due to a disturbance of the work–family life balance during the pandemic (Hiraoka & Tomoda, 2020; Miller et al., 2020). Increased parental stress has been linked to daily increases in psychological control within the same family (Van Der Kaap-Deeder et al., 2019). Hence, we expected that parents would become less autonomy supportive and more psychologically controlling after the start of the COVID-19 LD measures, related to the increase in individual and family level stressors.

Indeed, the first empirical studies indicate that COVID-19 LD measures negatively impact family functioning - although some parents reported spending more time together as a family as something positive (Brown et al., 2020; Janssen et al., 2020). For example, parents reported more mental health problems (Achterberg et al., 2021) and difficulties with managing their children's problem behavior or their children's academic functioning during the pandemic (Brown et al., 2020). Parental mental health problems, such as depressive and anxiety symptoms, in turn, predicted higher levels of parental stress (Achterberg et al., 2021; Brown et al., 2020). The extent to which parents experienced stress depended on family demands, such as their financial resources (Malkawi et al., 2020) or the extent to which they experienced quarantine as difficult

(Spinelli et al., 2020). Especially parents with younger children and children with more emotional and behavioral problems experienced the COVID-19 quarantine as more difficult (Spinelli et al., 2020).

Aims and Hypotheses

Our study was based on insights into normative demands in ongoing relationship transformations from adolescent psychology, combined with the FAAR model on family stress and resilience, and the first empirical studies on COVID-19. It seemed plausible that parents' and adolescents' relatively stable patterns of daily functioning were affected in terms of three key dimensions of parent–adolescent relationships (i.e., warmth vs. conflict, autonomy support vs. psychological control, and behavioral control). Our first aim was to test mean level change in the average family with biweekly measurements spanning 16 weeks (four measurements before LD and four measurements during LD). In comparison to pre-LD mean levels, we hypothesized more conflicts and less warmth (H1a), less autonomy support and more psychological control (H1b), and more behavioral control (H1c). We tested these hypotheses for adolescent and parent reports, expecting the same within-person changes for both informants. Above and beyond these more abrupt changes in family functioning (here operationalized as mean level change directly after LD announcement), we explored adaptation processes (here operationalized in terms of gradual changes during 2 months of LD) without a priori hypotheses.

Second, we investigated heterogeneity between families. Assuming some families will be more resilient to negative events and disruptions and others will be more vulnerable, we hypothesized significant differences between families in the rates of change reported by both informants (H2). We explored if these differences would be related to characteristics at the relationship level (i.e., mean level of family adjustment prior to LD), demands and capabilities at the individual level (i.e., trait-level parental anxiety, parental worry about COVID-19), child responses to changes in parenting, (i.e., oppositional defiance and legitimacy beliefs), and demographic variables (i.e., adolescent age, gender, and educational level).

Third, we aimed to obtain a first understanding of the magnitude of disruptions of day-to-day family routines, in terms of adolescent freedom (e.g., rules, time with peers) as well as adolescents' acceptance of parental rules. Earlier studies suggest that restriction of autonomy and freedom, especially when this is considered illegitimate control by adolescents, may lead to oppositional defiance and parent–adolescent conflicts (e.g., Assadi et al., 2011; Van Petegem et al., 2015). Therefore, we hypothesized that adolescents who reported more COVID-19-related rules, compared to other adolescents, would report more oppositional defiance and more conflicts with their parents (i.e., between-person correlation—H3a). Moreover, lower levels of legitimacy beliefs were expected to be related to higher levels of oppositional defiance and more parent–adolescent conflicts (i.e., between-person correlation—H3b). As the perception of the family functioning may differ between parents and adolescents and informant differences may indicate important relational tensions (Smetana et al., 2006), we took a multi-informant approach to test all the aforementioned hypotheses.

Method

Participants

Data ($N_{\text{adolescents}} = 179$ and $N_{\text{parents}} = 144$) came from a larger ongoing longitudinal study in the Netherlands, “One Size Does

Not Fit All” (Boele, Keijsers, & Bülow, 2020). Most of these adolescents participated with a parent ($N = 142$), whereas 37 adolescents participated without a parent. Two parents participated without a child, as their child had dropped out in an earlier stage.

Adolescents were on average 14.26 years old ($SD_{\text{age}} = 1.62$, range = 12–17 years). Most adolescents were female (69%), born in the Netherlands (97%), and had at least one sibling (91%). Seventeen percent of the adolescents followed prevocational secondary education (VMBO), 1% a vocational/technical training (MBO), 26% higher general secondary education (HAVO), 53% preuniversity secondary education (VWO), and 3% were in classes with mixed tracks (i.e., HAVO/VWO).

All participating parents were the primary caregiver (i.e., the parent with whom the adolescent spends most of the time), of which 117 were biological mothers (81%) and 27 were biological fathers (19%). Parents were on average 47.01 years old ($SD_{\text{age}} = 5.19$, range = 36–76 years). Most parents were born in the Netherlands (92%). In terms of educational level, 12% were low-educated (<1% did not finish high school, 11% had high school diploma), 33% were medium educated (vocational/technical training), and 55% were highly educated (college or university degree). Our sample was slightly higher educated than the population of 45- to 55-year-old adults in the Netherlands (which is 20% low, 41% medium, and 39% highly educated; Central Bureau of Statistics, 2020).

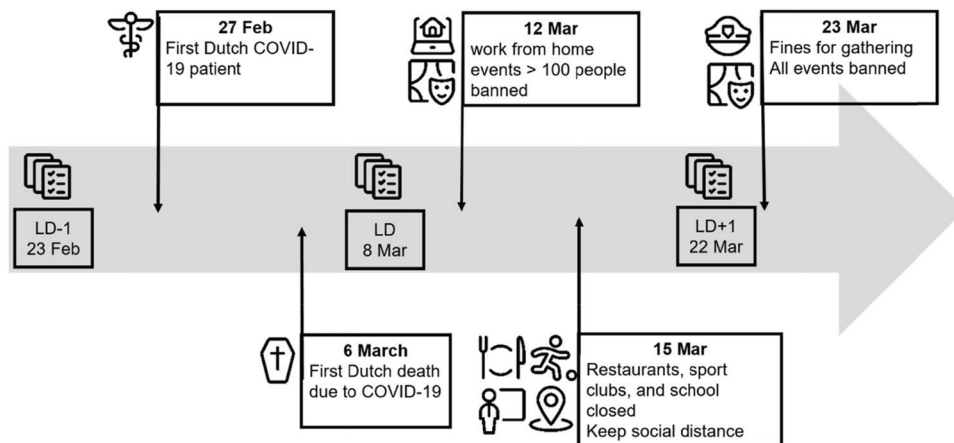
Procedure

Adolescents and their parents were recruited at a large high school in the south of the Netherlands with approximately 2,400 students. We informed them through information evenings for parents, newsletters, and class visits (September 2019 through November 2019). Adolescents were included if they were between 12 and 17 years old at the start of the study and encouraged to participate with at least one parent. After the inclusion of a first child, siblings were not allowed to participate, which was communicated to interested parents and adolescents. Prior to the start of the study, adolescents and parents provided active informed consent for themselves, and parents of adolescents under 16 years also provided active consent for the participation of their child. The study started in November 2019. We preregistered the original procedure before the start of the data collection (Boele, Keijsers, & Bülow, 2020).

Throughout the whole study, participants received online questionnaires (i.e., made in Qualtrics, 2020) by email and text messages. The overall study design spanned a year and consisted of one baseline questionnaire (30 min to 60 min), 26 biweekly questionnaires (5 min to 10 min), and four quarterly questionnaires (10 min to 20 min). Each questionnaire was sent on Sunday morning at 10:00 a.m., and participants had to complete the questionnaire before next Friday 10:00 a.m. Details can be found on OSF (Boele, Keijsers, & Bülow, 2020). Every Tuesday and Thursday morning, a reminder was sent by e-mail and text message to participants who did not yet complete the questionnaire. Adolescents received €5 (approx. \$6) for the first baseline questionnaire, €2 (approx. \$2) for the quarterly questionnaire, and €1 (approx. \$1) for the short biweekly questionnaire, and they could win an additional €10 (approx. \$12) in raffles if they completed the questionnaire. Parents received €0.75 (approx. \$1) for every completed questionnaire.

In the current study, eight biweekly measurements waves were used, spanning 16 weeks (see Figure 1, Figure 2, and Table 1). Four assessments (January 2020 through February 2020) took place prior to

Figure 1
Timeline of Dutch Governmental Measures to Restrict Spreading of COVID-19 and First Infection and Death Due to COVID-19



Note. Free icons from the streamline icons pack (<https://streamlineicons.com>). LD = Lockdown.

the detection of the first COVID-19 patient in the Netherlands (labeled LD -4 to LD -1) and start of the LD. One assessment took place in the week when the first COVID-19 measures were introduced by the Dutch government. This assessment was excluded because not all parents were already obliged to work from home. The four subsequent assessments, labeled LD + 1 to LD + 4 took place during the COVID-19 LD (end of March until mid-May 2020). The LD measures in the Netherlands consisted of keeping 1.5-m distance, prohibition of forming a group in public (i.e., more than two people), maximum of three visitors at home, working from home, and closing of schools, catering industry and cultural facilities (e.g., museums, theaters, restaurants, bars), and leisure facilities (e.g., sports, music, art clubs, see Figure 1). Fines were €390 approx. 473 Dollar for adults and €95 approx. 115 Dollar for adolescents if they violated the rules. These measures lasted until the last measurement wave (LD + 4, May, 2020). The

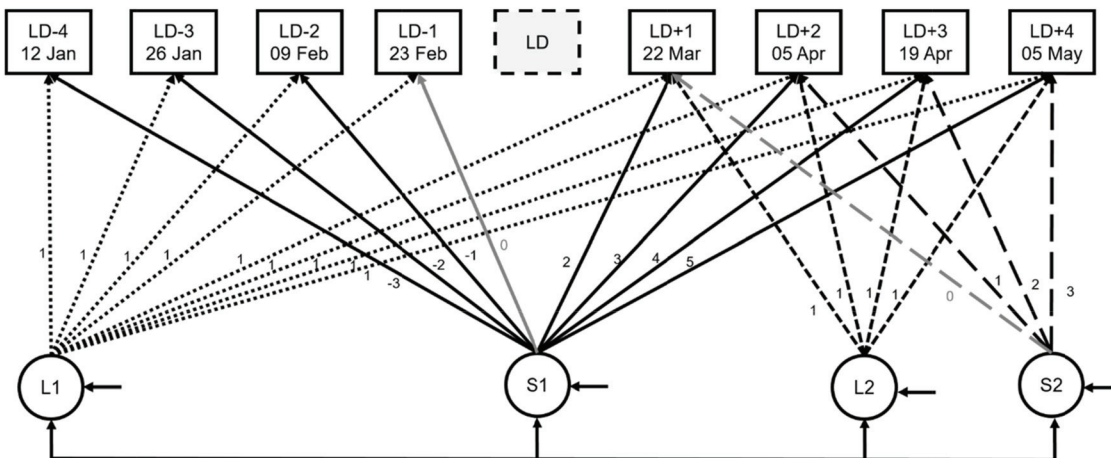
data collection “One Size Does Not Fit All,” as well as small changes to assess the impact of COVID-19, were approved by the Ethical Committee of Tilburg University (Record no.: EC-2019.65t).

Measures

Parental Warmth

Parental warmth was operationalized as parental support over the last 2 weeks. It was measured with a four-item version of the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985), which was translated in Dutch, shortened, and validated in earlier work (Dietvorst et al., 2018). One item was removed because of a possible high overtime stability (“How confident are you that the relationship with your mother/father will last

Figure 2
Specification of Piecewise Growth Model (Model 1)



Note. LD = lockdown. L1 = Level 1 (reflects the baseline functioning). S1 = Slope 1 (reflects normative linear gradual change over the course of the whole study); L2 = Level 2 (reflects the sudden lockdown change, controlling for L1 and S1); S2 = Slope 2 (reflects gradual linear lockdown change that cannot be explained by S1 or by L1 or L2).

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Table 1
Overview of Timing of Measurements

Construct	Measurement wave							
	LD - 4	LD - 3	LD - 2	LD - 1	LD + 1	LD + 2	LD + 3	LD + 4
Relationship dimensions								
Parental warmth	x	x	x	x	x	x	x	x
Parent-child conflict	x	x	x	x	x	x	x	x
Autonomy support	x	x	x	x	x	x	x	x
Psychological control	x	x	x	x	x	x	x	x
Behavioral control	x	x	x	x	x	x	x	x
COVID-19 specific measures								
Time with parents and peers					x			
COVID 19-related rules						x		
Oppositional defiance						x		
Legitimacy beliefs						x		
Parental anxiety and worry						x		

Note. LD = Lockdown.

anyway?") and to reduce burden on participants. An example item is "During the last 2 weeks, did your mother/father admire and respect you?" (see the online supplemental material at OSF [https://osf.io/bavf9/] for all items). The items were answered on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). Cronbach's alpha ranged from .87 to .92 for adolescent reports and from .75 to .83 for parent reports.

Parent-Adolescent Conflict

To assess the frequency of conflicts between parents and adolescents in the last 2 weeks, we used three items from the NRI (Furman & Buhrmester, 1985; e.g., "During the last 2 weeks, did you and your mother/father annoy and get mad on each other?"). The items were answered on a 5-point Likert scale ranging from 1 (*never*) to 5 (*very often*). Cronbach's alpha for adolescent-reported data ranged from .85 to .90 and for parent-reported data also from .85 to .90.

Autonomy Support

Autonomy supportive parenting was operationalized as parents' promotion of adolescents' volitional functioning. Four items with the highest factor loadings were chosen from the factor analysis presented in Soenens et al. (2007), of which three items were from the Autonomy Support Scale of the Perception of Parents Scale (POPS; Grolnick et al., 1991) and one item was from Silk et al. (2003) measure on autonomy granting (e.g., "During the last 2 weeks, my mother/father allowed me to decide things for myself"). The items were rated on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). Cronbach's alpha of the scale ranged from .91 to .94 for the adolescent-reported data and .92 to .93 for the parent-reported data.

Psychological Control

Psychological control was measured with the Psychological Control-Disrespect Scale (Barber et al., 2012), which measures parents' disrespect of adolescents' individuality. In terms of validity, the most recent version of this scale (Barber et al., 2012) showed to be a better predictor of adolescent adaptation than the older version (Barber, 1996). We used the four items with the highest factor loadings in the original study (Barber et al., 2012),

for example "During the last 2 weeks, my mother/father did not respect me as a person (not letting me talk, favoring others over me, etc.)." We translated the items to Dutch and used a 5-point Likert response scale ranging from 1 (*never*) to 5 (*always*). Cronbach's alpha of the scale ranged for adolescent-reported data from .85 to .91 and for parent-reported data from .67 to .78.

Behavioral Control

Parental behavioral control was measured with three items derived from Kerr and Stattin (2000). This scale was shortened for another study based on confirmatory factor models (Keijsers et al., 2016). An example item is, "During the last 2 weeks, did your parents demand you to tell where you were going, with whom, and what you were going to do?" The Likert response scale ranged from 1 (*never*) to 5 (*always*). For one item about spending money, we added two answer options based on input of adolescents in focus groups: "I did not spend any money" and "my parents can always track my spending through a banking app," which we recoded as missing in this study. Cronbach's alpha was between .83 and .92 for adolescent-reported data and between .87 and .92 for parent-reported data.

Time With Parents and Peers

At the first survey during the LD (LD + 1) we asked how many hours the adolescents spend with parents and friends on a "normal" weekday and weekend-day (i.e., before LD) versus during the LD. We separately asked about face-to-face and online contact with friends. The parents answered slightly reworded questions. The scale ranged between 0 and 24 hr.

COVID-19-Related Rules

At LD + 1 we added an open question regarding new rules ("Did your parents install new rules because of the new situation with COVID-19? Briefly describe these new parental rules."). Two researchers grouped participants' answers into a list of 23 unique rules, including meeting no friends or meeting one friend at the time, prohibition to go outside (regularly), keeping distance, hygiene-related rules, and household chores. For instance, the answer "Do not meet with a big group of friends" and "Limit social

contact” were merged under the rule: “Restrict meeting friends.” At LD + 2, adolescents and parents rated whether these rules applied in their household (*yes* or *no*) to obtain insights into the prevalence.

Oppositional Defiance

Oppositional defiance was measured (LD + 2) with four items derived from the Oppositional Defiance Scale of Vansteenkiste et al. (2014). An example item is, “I do exactly the opposite of what my parents expect me to do.” The answer scale ranged from 1 (*not at all true*) to 5 (*completely true*). The original scale consists of eight items (Van Petegem et al., 2013) and the factor-structure of this four-item scale has been validated in two longitudinal studies (Vansteenkiste et al., 2014). The four-item scale showed good reliability (adolescents $\alpha = .87$, parents $\alpha = .84$).

Legitimacy Beliefs of Parental Authority

Ten items (LD + 2) measured adolescent legitimacy beliefs of parental authority (based on Smetana & Asquith, 1994) concerning rules about COVID-19. Items were adapted based on the COVID-19-related rules. Highly similar rules, such as “go outside regularly,” “avoid going outside,” and “do not go outside” were summed up to one item. An example item is, “Given the coronavirus pandemic, it is okay that my parents installed rules about what I can or cannot do with friends.” Adolescents rated these items on a 3-point scale with the following response options: 1 (*fully disagree*), 2 (*somewhat agree*), and 3 (*fully agree*). The reliability of the scale was acceptable ($\alpha = .85$).

Parental Anxiety and Worry (About COVID-19)

The State–Trait Anxiety Inventory Short (Marteau & Bekker, 1992) was used to measure self-reported parental anxiety (LD + 2). The scale consists of six items (e.g., “I feel tense”), which we translated to Dutch. The items were scored on a response scale ranging from 1 (*not at all*) to 4 (*very much*). The scale showed good reliability ($\alpha = .86$). The short six-item version had a strong correlation with the full 20-item version in previous studies (Marteau & Bekker, 1992; Van Der Bij et al., 2003). We created and added one item “I worry about COVID-19,” also scored on the same response scale.

Preregistered Plan of Analysis

We followed a preregistered plan of analysis to test our hypotheses (Bülow et al., 2021). H1 and H2 were tested using piecewise growth models (Flora, 2008) in *MPlus* (Muthén & Muthén, 2017; Version 8.3). Piecewise growth models, with additional slope factors, are specifically suited for disentangling ongoing processes of (developmental) change from change that occurs after a meaningful point in time, such as the onset of the LD. The model was estimated separately for each dependent variable and for each respondent (see Figure 2). The hypothesized nonlinear adaptation and adjustment to COVID-19 is disentangled by modeling two distinct but overlapping linear processes. A first intercept (L1) and slope (S1) were included to model the level and linear change over the whole study period (global trend). Because factor loadings were centered around measurement LD-1 (Wainer, 2000), the first intercept can be interpreted as relationship functioning directly before the LD. Additionally, the first slope can be interpreted as

normative (ongoing) changes in the relationship. The second intercept (L2) and slope (S2) captured changes in the level and linear slope during the LD, above and beyond global trends. The second intercept represents the mean level differences before versus directly after the announcement of the LD. It can be interpreted as a disequilibrium in the relationship at LD + 1 (providing a test of H1). The second slope captures gradual changes during the LD, above and beyond normative changes. By adding a variance term to the growth factors, each trajectory of estimated growth was allowed to vary across individuals. The variance of L2 was used to test H2 (differences between families in abrupt change). We exported the individual slope estimates of the final model and report correlations with moderators in R (R Core Team, 2019). This approach was chosen above the alternative to include all moderators in the model itself, to reduce model complexity. However, this approach does not account for estimation error of the parameters.

Model fit (as indicated in *Mplus*) was evaluated according to preregistered criteria (two out of three criteria needed to apply: RMSEA < .08, CFI > .90, TLI > .90). When model fit was insufficient, models were respecified according to a preregistered stepwise approach (e.g., removing parameters to simplify the model). In addition to these growth models, H3 was tested by computing Pearson correlations in R (R Core Team, 2019).

Missing Data

The baseline questionnaire, including demographic measures age, gender, and educational level had no missing values. The compliance of the biweekly questionnaires was 83% for adolescents and 93% for parents. The pattern of missing data was analyzed using Little’s missing completely at random (MCAR) test in SPSS (IBM Corp, 2016; preregistered inference criterion $\chi^2 > 5.00$). Both adolescent data, $\chi^2(493) = 379.57, p = 1.00; \chi^2 = .77$ and parent data, $\chi^2(456) = 554.44, p = .001; \chi^2 = 1.22$ suggested only small deviations from the MCAR pattern. Therefore, all available data were used in the analysis, using full information maximum likelihood estimation.

Results

Table 2 shows descriptive statistics of the sample. As some children participated without a parent, and some parents without a child, explorative tests of informant differences are presented using unpaired *t*-tests (paired *t*-tests of complete dyads can be found in Table S1 in the online supplemental material at OSF). In some assessments, adolescents perceived their relationship with their parent as warmer (*d* range = .26–.29), less conflicted (*d* range = .26–.41), more psychologically controlling (*d* range = .26–.31) and more behavioral controlling (*d* range = .33–.54) than their parents. No informant differences were found in autonomy support. The variables were normally distributed (skewness < 3.00; kurtosis < 10.00; Kline, 2011), except for one assessment of Psychological Control (LD + 3, parents and adolescents).

Daily Routines and Rules

Directly after the LD announcement (LD + 1), medium-sized to large changes occurred in the day-to-day routines of families. Both adolescents and their parents reported retrospectively to spend

Table 2
Descriptive Statistics of Longitudinal Data

Variable	Adolescent		Parent		Respondent difference ^a				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>	95% CI
Parental warmth									
LD - 4	4.61	0.54	4.55	0.40	1.07	308	.284	0.12	[-0.05, 0.17]
LD - 3	4.63	0.50	4.51	0.45	2.24	301	.026	0.26	[0.01, 0.23]
LD - 2	4.62	0.54	4.55	0.47	1.21	303	.226	0.14	[-0.04, 0.19]
LD - 1	4.64	0.54	4.54	0.42	1.71	287	.089	0.20	[-0.02, 0.21]
LD + 1	4.63	0.53	4.54	0.47	1.56	270	.120	0.19	[-0.02, 0.21]
LD + 2	4.63	0.54	4.48	0.48	2.42	269	.016	0.29	[0.03, 0.27]
LD + 3	4.62	0.48	4.53	0.44	1.55	245	.123	0.20	[-0.02, 0.21]
LD + 4	4.66	0.48	4.54	0.44	2.27	276	.024	0.27	[0.02, 0.24]
Parent-adolescent conflict									
LD - 4	1.84	0.76	1.93	0.73	1.04	307	.298	0.12	[-0.26, 0.08]
LD - 3	1.67	0.67	1.96	0.73	3.55	301	<.001	0.41	[-0.44, -0.13]
LD - 2	1.75	0.69	1.97	0.76	2.64	303	.009	0.30	[-0.38, -0.06]
LD - 1	1.78	0.76	1.92	0.71	1.65	286	.100	0.19	[-0.31, 0.03]
LD + 1	1.77	0.72	1.95	0.72	2.11	270	.036	0.26	[-0.35, -0.01]
LD + 2	1.78	0.81	2.01	0.73	2.38	268	.018	0.29	[-0.41, -0.04]
LD + 3	1.80	0.72	1.92	0.69	1.37	245	.171	0.18	[-0.30, 0.05]
LD + 4	1.78	0.76	1.94	0.66	1.93	276	.054	0.23	[-0.33, 0.00]
Autonomy support									
LD - 4	4.17	0.69	4.27	0.48	1.50	298.65 ^b	.136	0.17	[-0.23, 0.03]
LD - 3	4.20	0.70	4.24	0.51	0.52	295.09 ^b	.603	0.06	[-0.17, 0.10]
LD - 2	4.24	0.64	4.22	0.53	0.32	302.72 ^b	.748	0.04	[-0.11, 0.15]
LD - 1	4.25	0.64	4.24	0.51	0.19	282.94 ^b	.852	0.02	[-0.12, 0.15]
LD + 1	4.14	0.67	4.01	0.68	1.55	270	.121	0.19	[-0.03, 0.29]
LD + 2	4.12	0.77	4.06	0.65	0.65	266.95 ^b	.518	0.08	[-0.11, 0.22]
LD + 3	4.18	0.73	4.25	0.58	0.79	228.15 ^b	.428	0.10	[-0.23, 0.10]
LD + 4	4.22	0.69	4.24	0.53	0.18	266.70 ^b	.859	0.02	[-0.16, 0.13]
Psychology control									
LD - 4	1.35	0.58	1.20	0.34	2.80	280.83 ^b	.005	0.31	[0.04, 0.25]
LD - 3	1.29	0.50	1.20	0.35	1.66	301	.098	0.19	[-0.2, 0.18]
LD - 2	1.32	0.56	1.20	0.37	2.33	288.02 ^b	.021	0.26	[0.02, 0.23]
LD - 1	1.28	0.56	1.21	0.34	1.20	287	.232	0.14	[-0.04, 0.18]
LD + 1	1.25	0.49	1.21	0.38	0.75	270	.452	0.09	[-0.06, 0.14]
LD + 2	1.27	0.57	1.20	0.35	1.16	268	.248	0.14	[-0.05, 0.18]
LD + 3	1.29	0.60	1.15	0.33	2.30	183.30 ^b	.023	0.30	[0.02, 0.27]
LD + 4	1.29	0.57	1.22	0.39	1.08	276	.280	0.13	[-0.05, 0.28]
Behavioral control									
LD - 4	2.52	1.37	1.90	1.06	4.47	306.85 ^b	<.001	0.50	[0.35, 0.89]
LD - 3	2.42	1.26	1.93	1.04	3.74	300.88 ^b	<.001	0.42	[0.23, 0.75]
LD - 2	2.49	1.30	1.86	1.01	4.78	302.06 ^b	<.001	0.54	[0.37, 0.89]
LD - 1	2.48	1.31	2.03	1.14	3.14	286.99 ^b	.002	0.37	[0.17, 0.74]
LD + 1	2.31	1.32	2.05	1.17	1.72	271	.086	0.21	[-0.04, 0.56]
LD + 2	2.38	1.46	1.99	1.15	2.42	262.35	.016	0.29	[0.07, 0.70]
LD + 3	2.48	1.53	1.84	1.09	3.75	213.90	<.001	0.48	[0.30, 0.97]
LD + 4	2.38	1.48	1.95	1.09	2.79	262.47	.006	0.33	[0.13, 0.74]

Note. LD = Lockdown; *t* = *t*-value; *df* = degrees of freedom; *p* = *p*-value; *d* = Cohen's *d*; 95% CI = 95% confidence interval.

^a Unpaired *t*-tests. ^b Correction for unequal variances.

significantly more time together than before (see Table 3, *d* range = .20–.67). Adolescents also spent less time with their friends face-to-face (*d* range = .84–1.82), but more time with each other online or through phone than before (*d* = .58).

All adolescents reported to have new COVID-19-related rules (see Tables 4 and 5; on average, 13 novel rules in adolescents' reports, 14 in parents' reports). Apart from reinforcing government guidelines at home (e.g., social distancing), rules to structure daily routines were frequently introduced (e.g., 61% "get up on time," 67% "do homework"). Differences were also observed. Whereas some adolescents were urged to go outside (66%), a small minority was mandated to

stay home (4%), and whereas some adolescents (8%) had to restrict their time for gaming and phone use, a larger percentage of adolescents were allowed to spend more time on their phone (43%). Regarding friends, 21% of the adolescents (vs. 29% of the parents) reported that they could not meet any friend, and 37% (vs. 63% of the parents) reported they could only meet one friend. Although parents and adolescents reported similar topics, the frequency of rules reported by parents was generally higher than adolescents' perception. Adolescents' legitimacy beliefs of the new rules was generally medium high (see Tables 4 and 6; most agreed somewhat) and they reported low levels of oppositional defiance (see Table 4).

Table 3
Time With Family and Friends Before and During Lockdown (Hours Per Day)

Time with...	Before (retrospective)		Currently (LD + 1)		Difference (before vs. currently)				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>	95% CI
Adolescent report									
Primary caregiver (week)	8.55	5.47	12.72	6.94	10.13	140	<.001	0.65	[3.36, 4.99]
Primary caregiver (weekend)	12.34	6.18	14.13	6.82	5.19	140	<.001	0.27	[1.11, 2.47]
Secondary caregiver (week)	7.00	5.32	10.52	7.04	8.76	140	<.001	0.54	[2.75, 4.45]
Secondary caregiver (weekend)	11.31	6.38	12.70	7.26	3.93	140	<.001	0.20	[0.69, 2.09]
Friends (week)	8.14	3.53	2.14	3.02	-17.15	140	<.001	-1.82	[6.69, 5.31]
Friends (weekend)	6.60	5.79	2.34	3.72	-9.79	140	<.001	-0.84	[-1.04, -0.64]
Friends (online/phone)	3.23	3.69	5.64	4.41	8.63	140	<.001	0.58	[1.98, 2.96]
Parent report									
Adolescent (week)	5.95	3.76	10.55	6.70	12.14	130	<.001	0.67	[3.85, 5.35]
Adolescent (weekend)	10.31	5.23	12.76	6.31	7.11	130	<.001	0.41	[1.77, 3.13]

Note. LD = Lockdown; *t* = *t*-value; *df* = degrees of freedom; *p* = *p*-value; *d* = Cohen's *d*; 95% CI = 95% confidence interval. Differences were calculated with paired *t*-tests, comparing participants reports about the situation before the lockdown and during the lockdown (both measured at LD + 1).

Changes in Parent-Adolescent Relationship Quality Over Time (H1)

According to the preregistered plan, ten piecewise growth models were estimated (5 [construct] × 2 [respondent]) to assess changes in parent-adolescent relationships. To control for skewness, we used the maximum likelihood for robust standard errors for the models involving psychological control. Nine out of 10 models had a good fit (CFI range = .95-1.00; TLI range = .94-1.04; RMSEA range = .00-.10; see Table 7), except for the model for adolescent-reported psychological control. Even after respecifying the model to reduce the model complexity, no sufficient fit could be achieved (intercept-only model with six measurements: RMSEA = .09, CFI = .83, TLI = .86). Therefore, we could not test our hypothesis for this model. Sensitivity analyses were run for two models with a sufficient fit (adolescent-reported conflict and parent-reported psychological control) to assess the impact of Heywood cases (that is, variances of the disequilibrium parameter (L2) were negative). In these sensitivity analyses, the variances of the latent growth factors were restricted to be larger than 0 (see Table S2 in the online supplemental material at OSF), the fit remained sufficient, and the result pattern did not change. As an additional sensitivity analysis, an alternative model fit is presented in the online supplemental material (see Table S3 at OSF), which follows the recommendations of Widaman and Thompson (2003). The covariance-matrix of all SEM models are

Table 4
Descriptive Statistics for Single Measurements (LD + 1)

Variable (respondent)	<i>M</i>	<i>SD</i>	Range
Number COVID-19 rules (A)	13.04	3.96	2-16
Number COVID-19 rules (P)	14.36	3.04	2-19
Legitimacy beliefs regarding COVID-19 rules (A)	2.12	0.46	1-3
Oppositional defiance (A)	1.31	0.58	1-4
Oppositional defiance (P)	1.45	0.64	1-3.5
Parental anxiety (P)	2.02	0.57	1-3.4
Parental worry about COVID-19 (P)	2.62	0.75	1-4

Note. LD = Lockdown; A = adolescent; P = parent.

available in the online supplemental material (see Tables S4 through S13 at OSF).

We had hypothesized a disequilibrium (i.e., sudden mean level changes after the LD announcement) in all relationship dimensions

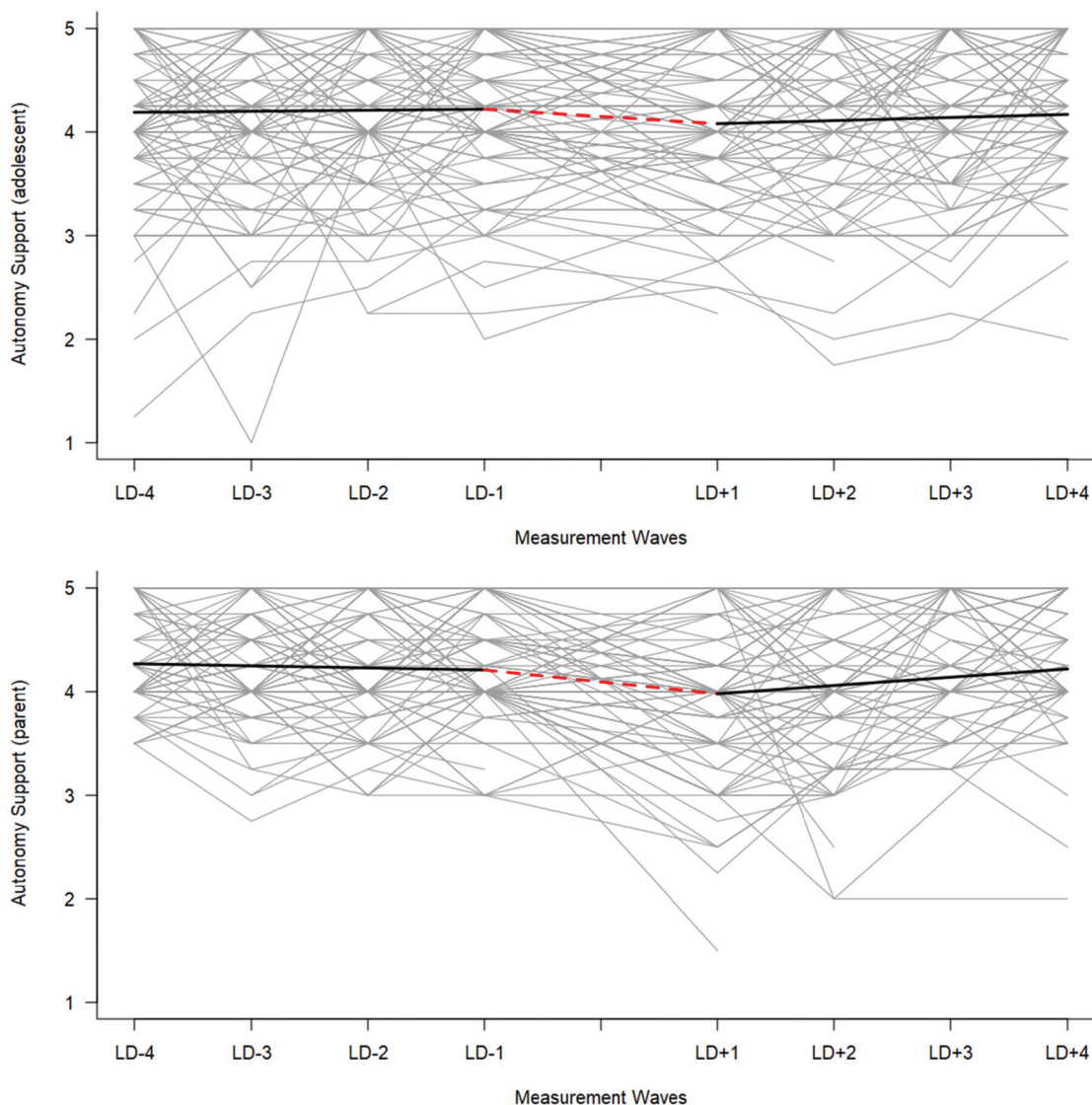
Table 5
New COVID-19 Rules by Respondent and Domain

Rule	Adolescent		Parent	
	<i>n</i>	%	<i>n</i>	%
Daily routines				
Get up on time	86	61	94	73
Have a schedule	70	50	97	75
Help with household	67	48	66	51
Go outside regularly	92	66	101	78
Avoid going outside	41	29	22	17
Do not go outside	5	4	0	0
Keep sporting	94	67	114	88
Do homework	99	71	115	89
Less phone use/gaming	11	8	6	5
More phone use/gaming	60	43	76	59
Friends				
Restrict meeting friends	105	75	99	77
Meet only one friend	52	37	81	63
Meet no friends	30	21	37	29
Health				
Eat healthy	63	45	53	41
Wash hands ^a	120	85	112	87
Extra hygiene	57	41	26	20
Cough in elbow ^a	125	89	124	96
Social distancing				
Do not visit grandparents	111	79	102	79
Do no visit parents ^b	55	39	40	31
Keep Distance	128	91	127	98
Avoid crowded places ^a	109	78	117	91
Avoid physical contact ^a	117	84	115	89
Stay at home if sick ^a	135	96	129	100

Note. *n* = number of participants indicating that this rule applies in their family. ^a Dutch governmental rules to avoid the spread of COVID-19. ^b We intended to ask if they were restricted in seeing one of their parents (when parents are separated and living apart); but, given the high ratings of children who lived with both parents on this item, we suspect that this item was misinterpreted by some adolescents, as the Dutch word of parent is similar to the Dutch word of elderly. Therefore, this item should be interpreted with caution.

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Figure 3
Change in Autonomy Support Over Time



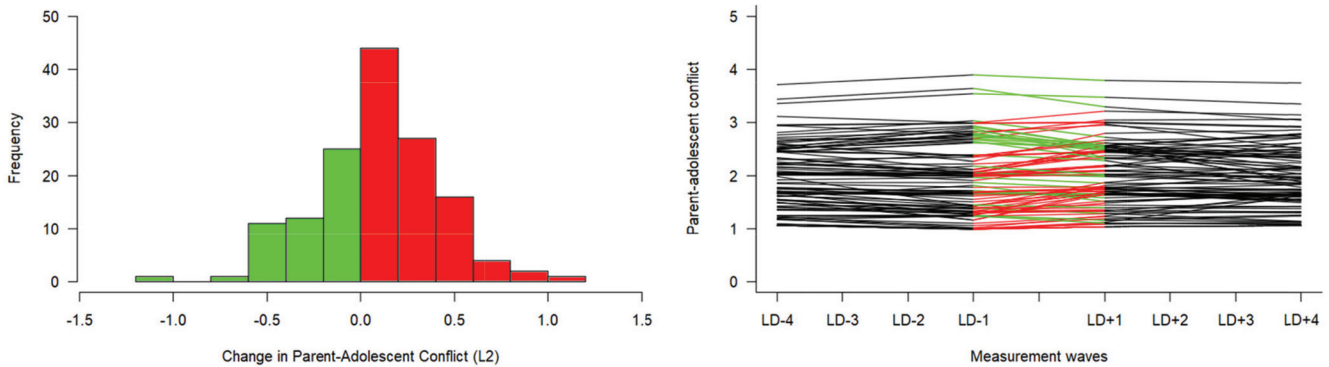
Note. Gray lines indicate observed scores. Bold lines indicate average estimated mean level change. Red dotted line depicts average mean level change when lockdown started. The upper panel depicts adolescent-reported autonomy support ($N = 179$), the lower panel parent-reported autonomy support ($N = 144$). LD = Lockdown. See the online article for color version of this figure.

(i.e., significant mean of L2 [H1]). The only significant mean level change was observed for autonomy support, which was lower directly after the announcement of the LD, both in the adolescent-reported model ($M L2 = -.16, p = .009, d = -.29$) and the parent-reported model ($M L2 = -.19, p = .002, d = -.48$; see Figure 3). Contrary to our predictions, mean level changes in the other models were not significant (see Table 7). Therefore, seven out of nine hypotheses regarding a mean level change were rejected. A significant gradual decline of parent-reported behavioral control ($M S2 = -.06, p = .047$) and a gradual increase in parent-reported autonomy support ($M S2 = .10, p < .001$) were observed in the 8 weeks of the LD. In none of the models, an overall gradual normative trend emerged over the 16 weeks of the study (nonsignificant mean of S1).

Between-Family Variances in Change (H2)

We further hypothesized (H2) significant differences between families in the sudden mean level changes after the onset of the LD (significant variance of L2). H2 was confirmed for four out of nine models (see also Figure S1 in the online supplemental material at OSF), namely for parental warmth (adolescent report), parent-adolescent conflict (parent report; see Figure 4), autonomy support (adolescent report; see Figure 3), and behavioral control (parent report). However, the effect of variance around L2 for behavioral control should be interpreted cautiously as it did not reach significance after controlling for multiple testing (see Table 7). Families also differed in the gradual change (significant variance of S2) of

Figure 4
Change in Parent-Adolescent Conflict From Parent Report



Note. Left panel: distribution of change parameter L2 (Level 2: sudden change after onset of lockdown) in parent-adolescent conflict during lockdown. Green (light gray) bars show decrease in parent-adolescent conflict, red (dark gray) bars show increase in parent-adolescent conflict. Right panel: over time changes in parent-adolescent conflict. Green (light gray) lines show decrease in parent-adolescent conflict. Red (dark gray) lines show increase in parent-adolescent conflict. LD = Lockdown. See the online article for color version of this figure.

parental warmth (parent-report), parent-adolescent conflict (parent-report), and autonomy support (adolescent-report; see Table 7).

To better understand these differences between families, we explored correlates of the relationship disequilibrium (L2) and the gradual change during LD (i.e., S2, presented in the online supplemental material; see Table S14 through S18 at OSF), namely the level of family functioning before LD (L1), parental factors (parental anxiety and worry about COVID-19), adolescents' reaction toward novel rules (oppositional defiance and legitimacy beliefs), and demographics (age, gender, and adolescent educational level).

In most relationship dimensions, pre-LD mean levels of functioning (L1) were associated with sudden changes after the onset of the LD (L2). Families with relatively higher levels of warmth decreased more strongly in warmth (adolescent report: $r[177] = -.23, p = .002$). Higher levels of conflict were positively associated with an increase in adolescent reported conflict

($r[177] = .79, p < .001$), but this association was negative in parent-reported conflict data ($r[142] = -.45, p < .001$). Higher baseline levels of autonomy support were associated with less pronounced decreases or stronger increases in autonomy support (parent report: $r[142] = .35, p < .001$). Higher baseline levels of psychological control were associated with a stronger increase in psychological control (parent report: $r[142] = .37, p < .001$). Families with higher baseline levels of behavioral control, reported stronger increases in control (adolescent report: $r[177] = .78, p < .001$). Turning to parental factors (that is, parental trait-level anxiety and worry about COVID-19), both were unrelated to the changes in the relationship dimensions during LD after controlling for preexisting levels of family functioning. When testing associations with adolescents' reaction toward novel rules in terms of legitimacy beliefs and oppositional defiance, 4 out of 54 tests were significant after controlling for preexisting levels of family functioning (see Tables S14 through S18 in the online supplemental material at OSF), although controlling for multiple testing would make these disappear. In terms of short-term changes (L2), parents who experienced more adolescent oppositional defiance reported a steeper decrease in autonomy supportive parenting ($r[126] = -.20, p = .022$), and stronger legitimacy beliefs as reported by adolescents correlated with an increase in parent-reported psychological control ($r[110] = .28, p = .003$). Demographic variables were unrelated to the short-term or longer-term changes in relationship quality after controlling for the preexisting characteristics of the relationship.

Table 6
Legitimacy Beliefs Concerning New COVID-19 Rules by Domain

Rule	Disagree	Agree somewhat	Totally agree
Daily routines			
Leisure time	24%	47%	29%
Have schedule	40%	48%	12%
Do homework	34%	41%	26%
Go outside	21%	49%	31%
Sport	22%	49%	29%
Friends			
Activities with friends	14%	37%	49%
Health			
Eat healthy	31%	44%	25%
Hygiene	25%	46%	29%
Social distancing			
See family	9%	35%	56%
Keep distance	7%	29%	64%

Note. Values represent answers to the item, "Given the coronavirus pandemic, it is okay that my parents installed rules about . . .". Values in bold-face type indicate the highest percentage per rule.

Adolescents' Response to Novel Situation (H3)

To understand adolescent responses to the LD, we assessed how adolescent legitimacy beliefs and oppositional defiance were correlated with parent-adolescent conflicts. As parent-adolescent conflict and oppositional defiance were low and not normally distributed, we calculated nonparametric Spearman correlations (rather than Pearson correlations). Contrary to our between-person predictions (H3a), the number of new rules was not correlated with adolescent reports of parent-adolescent conflict, $r(138) = .06, p = .504$, and not correlated

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Table 7
Results of Piecewise Growth Models

Measure	Growth factor	<i>M</i>	<i>SE</i>	Variance	<i>SE</i>	RMSEA, CFI, TLI ^a
Adolescent						
Parental warmth	L1	4.63***	0.04	0.25***	0.03	.04
	S1	0.01	0.01	0.01**	0.00	.99
	L2	-0.02	0.04	0.11***	0.03	.99
	S2	0.00	0.01	0.01	0.00	
Parent-adolescent conflict	L1	1.75***	0.05	0.35***	0.05	.09
	S1	-0.01	0.02	0.00	0.01	.97
	L2	0.10	0.06	-0.03 ^b	0.09	.96
	S2	0.00	0.02	0.01	0.01	
Autonomy support	L1	4.22***	0.05	0.31***	0.05	.04
	S1	0.01	0.02	0.01	0.01	.99
	L2	-0.16**	0.06	0.25**	0.09	.99
	S2	0.02	0.02	0.04***	0.01	
Psychological control ^c	L1	1.29***	0.04	0.22***	0.04	.09
	S1					.83
	L2					.86
	S2					
Behavioral control	L1	2.55***	0.10	1.26***	0.18	.08
	S1	0.02	0.02	0.01	0.02	.98
	L2	-0.11	0.10	0.01	0.23	.97
	S2	-0.02	0.03	0.03	0.03	
Parent						
Parental warmth	L1	4.54***	0.04	0.15***	0.02	.06
	S1	0.00	0.01	0.003	0.00	.99
	L2	-0.03	0.04	0.04	0.03	.99
	S2	0.00	0.01	0.01**	0.00	
Parent-adolescent conflict	L1	1.92***	0.06	0.48***	0.06	.08
	S1	-0.01	0.01	0.01	0.01	.98
	L2	0.09	0.06	0.21*	0.09	.98
	S2	<0.01	0.02	0.02*	0.01	
Autonomy support	L1	4.21***	0.04	0.16***	0.03	.10
	S1	-0.02	0.01	0.00	0.00	.95
	L2	-0.19**	0.06	0.08	0.08	.94
	S2	0.10***	0.02	0.01	0.01	
Psychological control	L1	1.20***	0.03	0.07***	0.02	.00
	S1	0.00	0.01	0.02	0.00	1.00
	L2	0.00	0.03	-0.01 ^b	0.04	1.04
	S2	<0.02	0.01	0.00	0.00	
Behavioral control	L1	2.00***	0.09	0.99***	0.15	.04
	S1	0.03	0.02	0.02	0.01	1.00
	L2	0.00	0.10	0.32*^d	0.18	.99
	S2	-0.06*	0.03	0.03	0.02	

Note. RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index. Variances were tested one-sided, as they cannot < 0. Level 1 (L1 intercept) reflects the baseline functioning. Slope 1 (S1) reflects normative linear gradual change over the course of the whole study. Level 2 (L2 or intercept) reflects the sudden lockdown change, controlling for L1 and S1, and is used to test Hypothesis 1. Slope 2 (S2) reflects gradual linear lockdown change that cannot be explained by S1 or by L1 or L2. Variance around L2 is used to test Hypothesis 2. Parameters that support the hypotheses are presented in boldface type.

^a These fit indices were calculated with Mplus. ^b Heywood cases (Variance < 0); sensitivity tests were conducted. ^c Model fit did not meet our standards. ^d When correcting the alpha level for multiple testing (hypotheses tested twice for both informants), this effect did not reach significance and should be interpreted cautiously.

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

with oppositional defiance when correcting for multiple testing for two informants, $r(138) = -.17, p = .044$. For parent reports, new rules were not correlated with parent-adolescent conflict, $r(127) = -.03, p = .713$, nor with oppositional defiance, $r(127) = .06, p = .514$. Adolescent legitimacy beliefs were not correlated with parent-adolescent conflict, $r(138) = -.09, p = .279$, but negatively correlated with oppositional defiance, $r(138) = -.22, p = .010$, as expected (H3b). That is, adolescents who thought it was more legitimate that their parents installed novel rules regarding COVID-19, compared with others, were less oppositional than others.

Discussion

According to theories on family resilience (Henry et al., 2015; Patterson, 2002), the equilibrium of daily functioning in families may get disturbed when situational demands outweigh the family's resources and capabilities. As the COVID-19 pandemic could affect the family system (Masten & Motti-Stefanidi, 2020), this multi-informant eight-wave study among Dutch families examined its impact on three key dimensions of parent-adolescent relationships: parental warmth (vs. conflict), autonomy support (vs. psy-

chological control), and behavioral control. Findings demonstrated that the daily routines of families with adolescents changed quite strongly during the LD, with youths spending more time with their parents and less time with friends. Moreover, an average of 13 new family rules were installed directly after the announcement of the LD (e.g., not seeing friends). The impact on the parent–adolescent relationship was modest at best, however. Most adolescents seemed to think that these novel rules were legitimate. In terms of relationship changes, although parents became less autonomy supportive at the beginning of the LD, this recovered according to parents (but not their children) 2 months into the LD. For the other dimensions of parent–adolescent relationships, disruptions of day-to-day routines did not have sufficient magnitude to disrupt the dynamic equilibrium in the average family, counter to our expectations.

However, we also found that small effects at the aggregate level may have masked heterogeneity between families: Whereas some parent–adolescent relationships seem to have benefited from the changes in their daily life (e.g., more warmth, less conflict), other families may have faced poorer family functioning (e.g., less warmth, more conflict; Janssen et al., 2020). The preexisting characteristics of the relationships, and to a lesser extent adolescents' legitimacy beliefs and oppositional defiance, partially explained these divergent response patterns. Neither parental trait-level anxiety or COVID-19-related worry, nor demographic variables were related to these differences. In the following text, we discuss these findings in light of the study's limitations and provide potential practical implications.

Family Disequilibrium and Adaptation During LD

In this study we tested more immediate changes in the daily routines and family functioning during LD as well as possible adaptation processes over 2 months in three key dimensions of parent–adolescent relationships. As primary socialization agents, parents play a fundamentally important role in teaching and monitoring behaviors of their adolescents. One of the stronger changes in family routines was the introduction of more than a dozen novel rules by parents (e.g., restrictions to see friends, getting up on time, washing hands). These rules reduced adolescents' freedom to decide on issues in quite personal domains, such as hygiene and friendships (Smetana & Asquith, 1994), and may as such impact the equilibrium of parent–adolescent relationships. Consistent with this, longitudinal models indeed revealed a decrease in autonomy supportive parenting according to adolescents ($d = -.29$) and parents ($d = -.48$). Although these effects observed over 4 weeks were only small to medium-sized, the magnitude was similar to longitudinal studies that assess changes over several years of development (De Goede et al., 2009). Our findings also provided some evidence for the adaptive capacity of families described in resilience literature (e.g., Masten & Motti-Stefanidi, 2020): In the 2 months of the LD, parents reported that their level of autonomy support had been restored (but this could not be detected in the adolescent report).

As adolescents' increasing need for autonomy is a driving force in relationship transformations and conflicts may emerge over decision making, we had expected that a reduction of freedom would affect the parent–adolescent relationship. However, counter to our expectations, levels of warmth, conflict, behavioral control, and psychological control did not suddenly change during the LD (see also, Janssen et al., 2020). Apart from the short time frame of

observation, one potential explanation for this small impact lies in adolescents' legitimacy beliefs.

Conflicts may emerge over issues that are multifaceted (Smetana & Asquith, 1994). For instance, adolescents may find friendships a personal choice and may respond with oppositional defiance when parents try to protect their adolescents from hanging around with certain peers (Keijsers et al., 2012). Indeed, we also observed informant differences: Adolescents perceived the relationship as warmer, less conflicted, but also more psychologically and behaviorally controlling than their parents. However, on many other aspects, parents and children seemed to agree. No informant differences were found in autonomy support. In terms of COVID-19 induced change, both adolescents and parents reported declines in autonomy support, although directly comparing the adolescent and parent models was hindered by incomplete dyads.

Moreover, 29% of the parents prohibited face-to-face contact with friends to ensure social distancing, yet 49% of the adolescents thought it was okay that parents interfered. This suggests that most parents and adolescents in this Dutch sample agreed that not seeing friends in times of COVID-19 may actually be prudential, and adolescents may therefore be quite accepting of these novel rules, although we did not assess whether or not they obeyed the rules (Darling et al., 2008). Relatedly, levels of oppositional defiance and parent–adolescent conflicts were low in this study. Moreover, results indicate that adolescents have compensated missing their friends to some extent by an increase in social media use (from 3 hr normally to 6 hr during the LD). In sum, in the average Dutch family, the impact of COVID-19 on parent–adolescent relationships was threefold: (a) a strong change in time spent together at the cost of spending time with friends, (b) more than a dozen novel rules, and (c) a sudden drop in experienced and provided autonomy support.

Heterogeneity Among Families

Most modern theories on parent–child relationships acknowledge that each family is a unique dynamic system. When situational demands suddenly change, as is the case with LD measures, this may lead to daily hassles and stress in some families, but it may also provide opportunities for others. As predicted by the FAAR model (Patterson, 2002), significant heterogeneity was found in terms of changes in relationship quality. Findings suggest that whereas for some families the parent–adolescent relationship improved during the LD, for other families the parent–adolescent relationship deteriorated.

To foster family resilience in times of increased daily hassles or family risk, and to understand why this heterogeneity emerges, multiple levels of the system need to be studied to assess short-term and longer-term adaptation processes (Henry et al., 2015; Masten & Motti-Stefanidi, 2020). Therefore, we assessed whether demographics, and the more proximally related relationship qualities, parental factors, and child factors could explain the impact of the COVID-19 measures on the relationship.

Most strongly, families with higher baseline mean levels of autonomy supportive parenting, psychological control, and behavioral control, became more autonomy supporting, more psychologically controlling, and more behaviorally controlling, respectively, directly after the onset of the LD. Such divergent change trajectories depending on earlier levels of functioning have also been reported under normal circumstances (Laursen et al., 2010): Oftentimes, the poor get poorer and the rich get richer.

To a lesser extent, adolescents' responses to the novel day-to-day situation during LD might explain some of the differences between families. Indeed, adolescents who felt that parental rules were less legitimate also reported more oppositional defiance than other adolescents, which may lead to an additional demand on the family system as a whole. However, one limitation was that adolescents' reaction toward the novel situation was assessed 3 weeks after the LD. With regard to parental factors, earlier literature suggests that parental levels of stress may affect parenting practices (e.g., Van Der Kaap-Deeder et al., 2019), which was not supported in this study after taking earlier levels of psychological control into account.

Eight weeks into the LD, the first signs of the adaptive capacity of families were observed, and this flexibility to adapt also differed from family to family. Although this is just a relatively short time window, small effects could possibly accumulate and grow over time, both for better and worse (Masten & Motti-Stefanidi, 2020). Family demands may pile up over time as the pandemic endures (e.g., due to job loss and financial concerns) and stress of parents may directly undermine their capacity to support adolescents' autonomy development (e.g., Van Der Kaap-Deeder et al., 2019). The extent to which sudden changes may have impacted the developmental trajectory of family functioning, or whether families bounce back or even flourish in the 'new normal' is still an open question.

Practical Implications

As the pandemic will probably endure or new pandemics may arise, studies like these on the impact of the first LD may help to find resources of resilience and promising targets for supporting families with adolescents. After an initial decrease in autonomy supportive parenting, parents managed to increase their autonomy support again despite enduring societal restrictions. This flexibility to adjust can be considered a sign of family adaptation (Patterson, 1988) and may serve as an important family resource to navigate challenges, stress, and increasing uncertainty when the pandemic endures. For instance, it has been suggested that parents may use adversity as an opportunity to teach adolescents how to regulate negative emotions and how to cope with stress (Henry et al., 2015). Autonomy supportive parenting in particular may help adolescents to regulate heightened negative emotions during COVID-19 and may as such serve as a protective factor against adolescent internalizing problems (Brenning et al., 2015).

At the same time, by demonstrating large heterogeneity between families, this study suggests that protective resources are more readily mobilized in families who were already better functioning. On the other end of the spectrum, there was a meaningful subset of families in which parent-adolescent conflicts and psychological control increased. Specific worries have been expressed regarding families who are more vulnerable, for instance due to poverty, divorce, or parent's or children's psychopathology or somatic diseases (Malkawi et al., 2020; Masten & Motti-Stefanidi, 2020). COVID-19 may cause significant stress and developmental risk for them, especially considering reports that the youth care system might be struggling to provide sufficient professional support (Clemens et al., 2020). Hence societal investments in alternative manners to teach adolescents how to cope with stress and negative emotions, without requiring face-to-face contact or home visits, such as eHealth, is therefore needed and opportune (Keijsers & Bülow, 2021).

Limitations

Although the study employed a preregistered analysis plan and eight-wave longitudinal design with multiple informants covering periods before and during LD, the findings need to be interpreted in light of several limitations. Relatively higher educated and well-functioning families were overrepresented in this study. Future research is needed in more diverse samples including families who are already at risk or are from a different cultural background.

There are also several methodological limitations. First, some items may not have applied to each child during the LD, such as the items of behavioral control (e.g., "Before you left on the weekend, did your parents demand you to tell them where you were going and with whom?"). Therefore, results concerning behavioral control should be interpreted cautiously. Second, time spent with parents and peers before the LD was retrospectively asked during the COVID-19 LD, and hence, responses could be biased. Third, we have to carefully reflect on the number of null-hypotheses significance tests that were carried out. Especially exploring several moderators of relationship change led to 162 significance tests, which could have led to several false positive findings. Consequently, these results should be interpreted cautiously.

Finally, it is still an open question if, and how, COVID-19 may affect family functioning beyond the here studied time window. On the one hand, it may have been that the more immediate processes of disequilibrium (e.g., conflicts over novel rules) had already been resolved at the first post LD assessment. Assessing short-term fluctuations within families and short-term mechanisms that cause change calls for a different type of study design, such as daily diaries or Experience Sampling Methods (Boele, Denissen, et al., 2020; Janssen et al., 2020). On the other hand, it might be that there is a long-term impact, so more research is urgently needed. Especially in already vulnerable families, stress and vulnerabilities may pile up, spread across developmental domains, and trigger a trajectory of family malfunctioning (Patterson, 2002).

Conclusion

This study examined whether parent-adolescent relationships were affected by COVID-19 LD measures, by studying abrupt and more gradual changes in three key domains of parent-adolescent relationships. The day-to-day routines of Dutch families changed quite strongly in terms of hours spent together and with friends. Directly after the onset of the LD, parents also became less autonomy supportive. Autonomy support was adapted to the new situation in the 2 months thereafter, allowing more adolescent volitional functioning despite the endurance of the LD. Whereas some parent-adolescent relationships seemed to have benefited from spending more time together, other families seemed to be struggling, resulting in poorer family functioning. Although there were between-family differences in the worry parents expressed and adolescents' acceptance of the novel situation, only the pre-existing characteristics of the relationship and to a lesser extent adolescent legitimacy beliefs and oppositional defiance could explain some of the divergent patterns of relationship change.

References

- Achterberg, M., Dobbelaar, S., Boer, O. D., & Crone, E. A. (2021). Perceived stress as mediator for longitudinal effects of the COVID-19

- lockdown on wellbeing of parents and children. *Scientific Reports*, 11(1), 2971. Advance online publication. <https://doi.org/10.1038/s41598-021-81720-8>
- Assadi, S. M., Smetana, J., Shahmansouri, N., & Mohammadi, M. (2011). Beliefs about parental authority, parenting styles, and parent—Adolescent conflict among Iranian mothers of middle adolescents. *International Journal of Behavioral Development*, 35(5), 424–431. <https://doi.org/10.1177/0165025411409121>
- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, 67(6), 3296–3319. <https://doi.org/10.2307/1131780>
- Barber, B. K., Xia, M., Olsen, J. A., McNeely, C. A., & Bose, K. (2012). Feeling disrespected by parents: Refining the measurement and understanding of psychological control. *Journal of Adolescence*, 35(2), 273–287. <https://doi.org/10.1016/j.adolescence.2011.10.010>
- Boele, S., Denissen, J., Moopen, N., & Keijsers, L. (2020). Over-time fluctuations in parenting and adolescent adaptation within families: A systematic review. *Adolescent Research Review*, 5, 317–339. <https://doi.org/10.1007/s40894-019-00127-9>
- Boele, S., Keijsers, L., & Bülow, A. (2020). One size does not fit all. *Open Science Framework*. Retrieved April 29, 2020, from <https://osf.io/e2jzk/>
- Branje, S. J. T. (2018). Development of parent—adolescent relationships: Conflict interactions as a mechanism of change. *Child Development Perspectives*, 12(3), 171–176. <https://doi.org/10.1111/cdep.12278>
- Brenning, K., Soenens, B., Petegem, S., Van., & Vansteenkiste, M. (2015). Perceived maternal autonomy support and early adolescent emotion regulation: A longitudinal study. *Social Development*, 24(3), 561–578. <https://doi.org/10.1111/sode.12107>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect: The International Journal*, 110(2), 104699. <https://doi.org/10.1016/j.chiabu.2020.104699>
- Central Bureau of Statistics. (2020). *Bevolking: hoogstbehaald onderwijsniveau en onderwijsrichting* [Population: Highest education level and educational track]. Retrieved April, 29 2020, from <https://opendata.cbs.nl/>
- Clemens, V., Deschamps, P., Fegert, J. M., Anagnostopoulos, D., Bailey, S., Doyle, M., Eliez, S., Hansen, A. S., Hebebrand, J., Hillegers, M., Jacobs, B., Karwautz, A., Kiss, E., Kotsis, K., Kumperscak, H. G., Pejovic_Milovancevic, M., Råberg Christensen, A. M., Raynaud, J. P., Westerinen, H., & Visnapuu-Bernadt, P. (2020). Potential effects of “social” distancing measures and school lockdown on child and adolescent mental health. *European Child & Adolescent Psychiatry*, 29(6), 739–742. <https://doi.org/10.1007/s00787-020-01549-w>
- Darling, N., Cumsille, P., & Martínez, M. L. (2008). Individual differences in adolescents’ beliefs about the legitimacy of parental authority and their own obligation to obey: A longitudinal investigation. *Child Development*, 79(4), 1103–1118. <https://doi.org/10.1111/j.1467-8624.2008.01178.x>
- De Goede, I. H. A., Branje, S. J. T., & Meeus, W. H. J. (2009). Developmental changes in adolescents’ perceptions of relationships with their parents. *Journal of Youth and Adolescence*, 38(1), 75–88. <https://doi.org/10.1007/s10964-008-9286-7>
- Dietvorst, E., Hiemstra, M., Hillegers, M. H. J., & Keijsers, L. (2018). Adolescent perceptions of parental privacy invasion and adolescent secrecy: An illustration of Simpson’s paradox. *Child Development*, 89(6), 2081–2090. <https://doi.org/10.1111/cdev.13002>
- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science*, 52(3), 177–187. <https://doi.org/10.1037/cbs0000215>
- Flora, D. B. (2008). Specifying piecewise latent trajectory models for longitudinal data. *Structural Equation Modeling*, 15(3), 513–533. <https://doi.org/10.1080/10705510802154349>
- Furman, W., & Buhrmester, D. (1985). Children’s perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21(6), 1016–1024. <https://doi.org/10.1037/0012-1649.21.6.1016>
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children’s perceptions of their parents. *Journal of Educational Psychology*, 83(4), 508–517. <https://doi.org/10.1037/0022-0663.83.4.508>
- Henry, C. S., Sheffield Morris, A., & Harrist, A. W. (2015). Family resilience: Moving into the third wave. *Family Relations*, 64(1), 22–43. <https://doi.org/10.1111/fare.12106>
- Hiraoka, D., & Tomoda, A. (2020). Relationship between parenting stress and school closures due to the COVID-19 pandemic. *Psychiatry and Clinical Neurosciences*, 74(9), 497–498. <https://doi.org/10.1111/pcn.13088>
- IBM Corp. (2016). IBM SPSS statistics for windows (Version 24.0) [Computer software]. <https://www.ibm.com/analytics/spss-statistics-software>
- Janssen, L. H. C., Kullberg, M. J., Verkuil, B., van Zwieten, N., Wever, M. C. M., van Houtum, L. A. E. M., Wentholt, W. G. M., Elzinga, B. M. (2020). Does the COVID-19 pandemic impact parents’ and adolescents’ well-being? An EMA-study on daily affect and parenting. *PLoS ONE*, 15(10), e0240962. <https://doi.org/10.1371/journal.pone.0240962>
- Keijsers, L., Branje, S., Hawk, S. T., Schwartz, S. J., Frijns, T., Koot, H. M., Lier, P. V., & Meeus, W. (2012). Forbidden friends as forbidden fruit: Parental supervision of friendships, contact with deviant peers, and adolescent delinquency. *Child Development*, 83(2), 651–666. <https://doi.org/10.1111/j.1467-8624.2011.01701.x>
- Keijsers, L., & Bülow, A. (2021). Growing up in times of covid-19: When a window of opportunity is temporarily close. In E. Aarts, H. Fleurent, M. Sitskoorn & T. Wilthagen (Eds.), *The new common - how the covid-19 pandemic is transforming society* (pp. 117–123). Springer International Publishing. <https://doi.org/10.1007/978-3-030-65355-2>
- Keijsers, L., Voelkle, M. C., Maciejewski, D., Branje, S., Koot, H., Hiemstra, M., & Meeus, W. (2016). What drives developmental change in adolescent disclosure and maternal knowledge? Heterogeneity in within-family processes. *Developmental Psychology*, 52(12), 2057–2070. <https://doi.org/10.1037/dev0000220>
- Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology*, 36(3), 366–380. <https://doi.org/10.1037/0012-1649.36.3.366>
- Kline, R. B. (2011). *Methodology in the social sciences: Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.
- Koepke, S., & Denissen, J. J. A. (2012). Dynamics of identity development and separation-individuation in parent—child relationships during adolescence and emerging adulthood—A conceptual integration. *Developmental Review*, 32(1), 67–88. <https://doi.org/10.1016/j.dr.2012.01.001>
- Laursen, B., Coy, K. C., & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development*, 69(3), 817–832. <https://doi.org/10.1111/j.1467-8624.1998.00817.x>
- Laursen, B., DeLay, D., & Adams, R. E. (2010). Trajectories of perceived support in mother-adolescent relationships: The poor (quality) get poorer. *Developmental Psychology*, 46(6), 1792–1798. <https://doi.org/10.1037/a0020679>
- Lionetti, F., Palladino, B. E., Moses Passini, C., Casonato, M., Hamzallari, O., Ranta, M., Dellagiulia, A., & Keijsers, L. (2019). The development of parental monitoring during adolescence: A meta-analysis. *European Journal of Developmental Psychology*, 16(5), 552–580. <https://doi.org/10.1080/17405629.2018.1476233>
- Loades, M. E., Chatburn, E., Higon-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., McManus, M. N., Borwick, C., & Crawley, E. (2020). Rapid systematic review: The impact of social isolation and loneliness on the mental health of children and adolescents in the

- context of COVID-19. *Journal of the American Academy of Child & Adolescent Psychiatry*, 59(11), 1218–1239. <https://doi.org/10.1016/j.jaac.2020.05.009>
- Magson, N. R., Fardouly, J., Freeman, J. Y. A., Rapee, R. M., Richardson, C. E., & Oar, E. L. (2020). Risk and protective factors for prospective changes in adolescent mental health during the COVID-19 pandemic. *Journal of Youth and Adolescence*. Advance online publication. <https://doi.org/10.1007/s10964-020-01332-9>
- Malkawi, S. H., Almhdawi, K., Jaber, A. F., & Alqatarnah, N. S. (2020). COVID-19 quarantine-related mental health symptoms and their correlates among mothers: A cross sectional study. *Maternal and Child Health Journal*. Advance online publication. <https://doi.org/10.1007/s10995-020-03034-x>
- Marques de Miranda, D., da Silva Athanasio, B., Sena Oliveira, A. C., & Simoes-E-Silva, A. C. (2020). How is COVID-19 pandemic impacting mental health of children and adolescents? *International Journal of Disaster Risk Reduction*, 51 (August), 101845. <https://doi.org/10.1016/j.ijdr.2020.101845>
- Marteau, T. M., & Bekker, H. (1992). The development of a six-item short-form of the state scale of the Spielberger State-Trait Anxiety Inventory (STAI). *British Journal of Clinical Psychology*, 31(3), 301–306. <https://doi.org/10.1111/j.2044-8260.1992.tb00997.x>
- Masten, A. S. (2001). Ordinary magic. Resilience processes in development. *American Psychologist*, 56(3), 227–238. <https://doi.org/10.1037/0003-066X.56.3.227>
- Masten, A. S., & Motti-Stefanidi, F. (2020). Multisystem resilience for children and youth in disaster: Reflections in the context of COVID-19. *Adversity and Resilience Science*, 1(2), 95–12. <https://doi.org/10.1007/s42844-020-00010-w>
- Meeus, W. (2016). Adolescent psychosocial development: A review of longitudinal models and research. *Developmental Psychology*, 52(12), 1969–1993. <https://doi.org/10.1037/dev0000243>
- Miller, J. J., Cooley, M. E., & Mihalec-Adkins, B. P. (2020). Examining the impact of COVID - 19 on parental stress: A study of foster parents. *Child & Adolescent Social Work Journal*. Advance online publication. <https://doi.org/10.1007/s10560-020-00725-w>
- Muthén, L. K., & Muthén, B. (2017). *Mplus user's guide*. (8th edition).
- Patterson, J. M. (1988). Families experiencing stress. I. The family adjustment and adaptation response model. II. Applying the FAAR model to health-related issues for intervention and research. *Family Systems Medicine*, 6(2), 202–237. <https://doi.org/10.1037/h0089739>
- Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family*, 64(2), 349–360. <https://doi.org/10.1111/j.1741-3737.2002.00349.x>
- Qualtrics. (2020). Qualtrics. <https://www.qualtrics.com>.
- R Core Team. (2019). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Retrieved April 29, 2020, from <https://www.r-project.org/>
- Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent-child relationship. *Child Psychiatry and Human Development*, 51(5), 671–682. <https://doi.org/10.1007/s10578-020-01037-x>
- Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence*, 13(1), 113–128. <https://doi.org/10.1111/1532-7795.1301004>
- Smetana, J. G. (2017, February). Current research on parenting styles, dimensions, and beliefs. *Current Opinion in Psychology*, 15, 19–25. <https://doi.org/10.1016/j.copsyc.2017.02.012>
- Smetana, J. G., & Asquith, P. (1994). Adolescents' and parents' conceptions of parental authority and personal autonomy. *Child Development*, 65(4), 1147–1162. <https://doi.org/10.2307/1131311>
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, 57(1), 255–284. <https://doi.org/10.1146/annurev.psych.57.102904.190124>
- Soenens, B., Vansteenkiste, M., & Van Petegem, S. (Eds.). (2017). *Autonomy in adolescent development: Towards conceptual clarity*. Psychology Press. <https://doi.org/10.4324/9781315636511>
- Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promotion of independence versus promotion of volitional functioning. *Developmental Psychology*, 43(3), 633–646. <https://doi.org/10.1037/0012-1649.43.3.633>
- Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' stress and children's psychological problems in families facing the COVID-19 outbreak in Italy. *Frontiers in Psychology*, 11, 1713. <https://doi.org/10.3389/fpsyg.2020.01713>
- Steinberg, L., & Silk, J. S. (2002). Parenting Adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 1. Children and parenting* (2nd ed., pp. 103–134). Lawrence Erlbaum.
- van der Bij, A. K., de Weerd, S., Cikot, R. J. L. M., Steegers, E. A. P., & Braspenning, J. C. C. (2003). Validation of the Dutch short form of the State scale of the Spielberger State-Trait Anxiety Inventory: Considerations for usage in screening outcomes. *Community Genetics*, 6(2), 84–87. <https://doi.org/10.1159/000073003>
- Van Der Kaap-Deeder, J., Soenens, B., Mabbe, E., Dieleman, L., Mouratidis, A., Campbell, R., & Vansteenkiste, M. (2019). From daily need experiences to autonomy-supportive and psychologically controlling parenting via psychological availability and stress. *Parenting*, 19(3), 177–202. <https://doi.org/10.1080/15295192.2019.1615791>
- van Eldik, W. M., de Haan, A. D., Parry, L. Q., Davies, P. T., Luijk, M. P. C. M., Arends, L. R., & Prinzie, P. (2020). The interparental relationship: Meta-analytic associations with children's maladjustment and responses to interparental conflict. *Psychological Bulletin*, 146(7), 553–594. <https://doi.org/10.1037/bul0000233>
- Van Petegem, S., Soenens, B., Vansteenkiste, M., & Beyers, W. (2015). Rebels with a cause? Adolescent defiance from the perspective of reactance theory and self-determination theory. *Child Development*, 86(3), 903–918. <https://doi.org/10.1111/cdev.12355>
- Van Petegem, S., Vansteenkiste, M., & Beyers, W. (2013). The jingle-jangle fallacy in adolescent autonomy in the family: In search of an underlying structure. *Journal of Youth and Adolescence*, 42(7), 994–1014. <https://doi.org/10.1007/s10964-012-9847-7>
- Van Petegem, S., Vansteenkiste, M., Soenens, B., Zimmermann, G., Antonietti, J. P., Baudat, S., & Audenaert, E. (2017). When do adolescents accept or defy maternal prohibitions? The role of social domain and communication style. *Journal of Youth and Adolescence*, 46(5), 1022–1037. <https://doi.org/10.1007/s10964-016-0562-7>
- Vansteenkiste, M., Soenens, B., Van Petegem, S., & Duriez, B. (2014). Longitudinal associations between adolescent perceived degree and style of parental prohibition and internalization and defiance. *Developmental Psychology*, 50(1), 229–236. <https://doi.org/10.1037/a0032972>
- Wainer, H. (2000). The centercept: An estimable and meaningful regression parameter. *Psychological Science*, 11(5), 434–436. <https://doi.org/10.1111/1467-9280.00284>
- Widaman, K. F., & Thompson, J. S. (2003). On specifying the null model for incremental fit indices in structural equation modeling. *Psychological Methods*, 8(1), 16–37. <https://doi.org/10.1037/1082-989X.8.1.16>

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