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Jing Yu  
*National Institute of Child Health and Human Development (NICHD)*

Charissa S.L. Cheah  
*University of Maryland, Baltimore County*

Craig H. Hart  
*Brigham Young University*

Chongming Yang  
*Brigham Young University*

Joseph A. Olsen  
*Brigham Young University*

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National Institute of Child Health and Human Development

Charissa S.L. Cheah
University of Maryland at Baltimore

Craig H. Hart
Brigham Young University, craig_hart@byu.edu

Chongming Yang
Brigham Young University

Joseph A. Olsen
Brigham Young University

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Regular Article

Longitudinal effects of maternal love withdrawal and guilt induction on Chinese American preschoolers’ bullying aggressive behavior

Jing Yu1, Charissa S. L. Cheah2, Craig H. Hart3, Chongming Yang4 and Joseph A. Olsen4

1National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD, USA; 2Department of Psychology, University of Maryland, Baltimore County, Baltimore, MD, USA; 3School of Family Life, Brigham Young University, Provo, UT, USA and 4College of Family, Home, and Social Sciences, Brigham Young University, Provo, UT, USA

Abstract

Bullying has been understudied among preschool children, especially those from Chinese American families. Previous research has also neglected the dimensional effects of psychological control on child bullying development. This study examined two psychological control dimensions, love withdrawal and guilt induction, and their effects on children’s bullying aggressive behavior using a longitudinal design. Participants were first-generation Chinese American mothers (N = 133; mean age [Mage] = 37.82) and their preschool children (Mage = 4.48). Chinese immigrant mothers reported their psychologically controlling parenting and teachers rated children’s bullying aggressive behaviors in the school setting. Confirmatory factor analyses were conducted to establish the psychometric properties and cross-wave measurement equivalence of the study constructs. Cross-lagged structural equation modeling analysis indicated that maternal love withdrawal prospectively predicted more bullying aggressive behavior, whereas guilt induction predicted less bullying aggressive behavior in children 6 months later. These results held after controlling for the initial level of children’s problem behaviors and demographic variables (child age, gender, and maternal education). For child effects, child bullying aggressive behavior predicted more maternal guilt induction over time but not love withdrawal. Our findings highlight the importance of construct specificity and cultural context in understanding associations between parenting and child development.

Keywords: aggression, bullying, guilt induction, love withdrawal, psychological control

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Parenting and child bullying in early childhood

Several theoretical perspectives can be drawn upon to frame conceptual linkages between parenting and bullying aggressive behavior. Social learning theory, for example, suggests that parents who use psychologically controlling interaction styles model manipulative, aversive behaviors that their children subsequently tend to enact with peers. Specifically, parents who threaten to withdraw love and attention unless a child is compliant with their wishes may mirror relationally aggressive child threats to end a relationship unless a friend is compliant with their wishes (e.g., Nelson et al., 2013). Parenting associations with bullying aggressive behavior may also be mediated by social cognitive variables that include deficits in how children learn to process social information. Parents who model maladaptive processing or engage in aversive parenting that promotes a hostile home environment may facilitate the development of children’s hostile intent attributes that are linked to aggressive behavior (e.g., Nelson & Coyne, 2009; Nelson, Mitchell, & Yang, 2008).

Attachment theory also provides a theoretical framework that emphasizes the importance of sensitivity and responsiveness in how parents interact with their young children (Bowlby, 1988; Michiels, Grietens, Onghena, & Kuppens, 2008). Parents who engage in aversive, controlling behaviors may weaken the attachment relationship with their child, thus promoting an internal working model in which they expect that others will not be sensitive to their needs. Accordingly, the child’s perceived lack of acceptance in the parent-child relationship may lend itself to relational insecurity in associations with others and to generalized expectations for rejection or conditional acceptance by peers, which is contrary to the fundamental human need for close, emotionally secure relationships (Deci & Ryan, 2000). Aggressive and negative behaviors in which children attempt to preemptively avert rejection and seek to avertively dominate their peers is posited to be how children inappropriately cope with relational insecurity (Soenens, Vansteenkiste, Goossens, Duriez & Niemiec, 2008). Casas et al. (2006) provided some support for this notion in a study that linked insecure attachment to higher levels of childhood physical and relational aggression.

With regard to empirical support for the theoretical perspectives noted previously for linkages between parenting and child bullying, Lereya, Samara, and Wolke (2013) conducted a meta-analysis of 70 studies that explored associations between parenting and child bullying, focusing primarily on peer victimization as well as bully/victims. The meta-analysis revealed that children who were bullies and victims were less likely to experience authoritative, sensitive, and responsive parenting and were more likely to be exposed to authoritarian, rejecting, and inconsistent parenting. Only 1 of the 70 studies examined young children using a longitudinal design, which showed that child bullying since age 5 years retrospectively reported by teachers and parents at age 7 were predicted by earlier child maltreatment (e.g., physical abuse) and low maternal warmth (Bowes, Arseneault, Maughan, & Taylor, 2009). Recently, Rajendran et al. (2016) found that parental support for child autonomy at ages 4 to 5 predicted reduced child bullying during the early school years; however, the authors did not find any longitudinal links between parental negative affect, emotionally supportive parenting, or the quality of parent–child interactions and child bullying. Although the trends are not entirely consistent across these limited early childhood studies, extant longitudinal findings suggest that certain parenting practices may predict later child bullying aggressive behavior.

Psychologically controlling parenting and role of culture

The current study focused on longitudinal linkages between psychologically controlling parenting and child bullying aggression, which have not yet been extensively examined. Parental psychological control refers to parents’ indirect control of children’s behavior through the manipulation of their thoughts and feelings and includes an array of parenting behaviors such as constraining children’s verbal expressions, invalidating their feelings, shaming, and exercising love withdrawal (Barber, 1996; Yu, Cheah, Hart, Sun & Olsen, 2015). As noted previously, such aversive parenting practices may weaken the parent–child attachment bond by creating a context of insecurity or inconsistency, thereby jeopardizing the child’s sense of acceptance and relational security and leading to peer relationship difficulties.

Parental psychological control has been found to predict poorer psychosocial functioning in children from Western cultures, including their aggressive behaviors (e.g., Casas et al., 2006; Nelson, Yang, Coyne, Olsen, & Hart, 2013). Psychologically controlling practices are used more frequently by parents in Asian cultures compared with those in Western cultures (e.g., Wu et al., 2002). Despite the higher prevalence of such parenting practices in interdependence-oriented cultures, however, psychological control is not consistently associated with problem behaviors in children from these cultures, with some studies reporting associations with more child difficulties (e.g., Nelson, Hart, Yang, Olsen, & Jin, 2006; Nelson et al., 2014) and others revealing no associations or even associations with certain positive child outcomes (e.g., Fung & Lau, 2012; Rudy & Halgunseth, 2005). Thus, research to date has provided mixed evidence for the implications of psychological control on children from interdependent cultures.

These inconsistent findings may be due, in part, to conceptualization issues. Most previous studies that examined the associations between psychologically controlling practices and child behavior used an overall scale of psychological control (e.g., Aunola, Tolvanen, Vilkjaranta, & Nurmi, 2013; Barber, 1996; Nelson et al., 2014) that combined dimensions such as constraining verbal expressions, invalidating feelings, inducing guilt, and withdrawing love. The effects of psychological control dimensions that appear more aversive (e.g., personal attack) may differ however from other practices whereby parents draw children’s attention to how their misbehavior has affected others (Yu et al., 2015). Fung and Lau (2012) suggested that the latter forms of psychological control (relational induction) may be more socially appropriate and congruent with the socialization goals of interdependent cultures, such as maintaining harmonious interpersonal relationships. These authors combined guilt induction, reciprocity, social comparison, and love withdrawal practices to create an overall index of relational induction and found that it was not associated with Chinese children’s behavioral problems (including rule-breaking and aggressive behaviors); however, a more specific examination of the dimensions within relational induction is warranted.

Psychological control dimensions and child bullying aggression

We took a dimensional approach to examine maternal guilt induction and love withdrawal separately in the current study
because these two constructs have been found to be statistically distinct (Yu et al., 2015) and differentially associated with psychological adjustment indices (Rudy, Carlo, Lambert, & Awong, 2014) among individuals of Asian cultural backgrounds. Guilt induction includes elements of inductive reasoning (Hart, Ladd, & Burleson, 1990) that introduces claims with accompanying rationales that support them (e.g., explaining that parents don’t allow roller blading in the house because it puts scratches in the floor), but emphasizes claims that emotionally evoke guilt by personalizing stated consequences (e.g., telling children their actions may cause parents to worry). Accordingly, guilt induction has been posited to help children better understand their parents’ perspective (Hoffman & Saltzstein, 1967). Inductive practices tend to reflect parents’ child-centered goals to teach children values, societal rules, or important lessons for the child’s future benefit and interpersonal connections (Dix, 1992; Hastings & Grusec, 1998); therefore, guilt inductive statements, which appeal to the child’s internally motivated guilt potential by seeking to elicit empathy for parental sacrifices and efforts may be a less aversive form of psychological control (Fung & Lau, 2012; Rudy et al., 2014). As Fung and Lau (2012) contend, “evoking guilt or inducing a focus on the parent’s perspective helps the child acquire empathy and attunement to others’ thoughts and feelings” (p. 967). Stimulating a reasonable amount of guilt for wrongdoing through inductive means may serve to reduce child conduct problems (e.g., Kochanska, 1993), which may have implications for curbing bullying since bullies tend to have little empathy for victims (Olweus, 1995).

In contrast to Fung and Lau (2012) who included love withdrawal as a form of relational induction, we asserted that love withdrawal is less of an inductive practice and more of an aversive form of psychological control. This is because love withdrawal involves little reasoning and centers on manipulating feelings of parental acceptance by threatening the loss of love and attention, which may undermine the parent–child bond, as posited by the parental acceptance–rejection theory (Rohner, Khaleque, & Cournoyer, 2005; Rudy et al., 2014; Yu et al., 2015). Examination of these two dimensions of psychological control and their specific associations with children’s bullying outcomes is warranted therefore. Although research on Western children (Casas et al., 2006; Nelson et al., 2013) show similarly detrimental effects of love withdrawal and guilt induction on child aggression, we expected these dimensions to have differential effects on Chinese children based on our conceptual arguments given previously and emerging empirical evidence for the benign nature of guilt induction among individuals influenced by interdependence-oriented cultures (Rudy et al., 2014; Yu, Cheah, Hart, & Yang, 2018).

**Additional research gaps in the literature**

In addition to the issues raised previously, several other gaps exist in the literature. First, little is known about the use and effects of psychological control among Asian immigrant families, which are now the fastest growing ethnic minority group in the United States, with Chinese Americans composing the largest subgroup of Asian Americans (US Census Bureau, 2016). Chinese Americans are unique in that they are potentially influenced by their heritage Chinese culture, which values interdependence and group harmony (Grusec, 2008), and the mainstream Western culture that emphasizes autonomy, assertiveness, and independence (Greenfield, Keller, Fuligni, & Maynard, 2003). Second, most previous research on psychological control used cross-sectional designs, which preclude drawing conclusions regarding directional relations between psychological control and child behavior. Extant longitudinal studies on Western samples provide contradictory evidence for the bidirectional relations between parental psychological control and child adjustment. Some studies found no prospective parenting effects, but child externalizing problems predicted increases in maternal psychological control (e.g., Albrecht, Galambos, & Jansson, 2007); however, other studies found reciprocal effects between psychological control and child aggression (e.g., Kuppens, Grietens, Onghena, & Michiels, 2009). Third, previous studies are limited in that they focused primarily on older children and adolescents with European or European American backgrounds and often relied on the same reporters (e.g., adolescent report) for both the parenting and child behavior. Moreover, previous studies usually focused on hostile forms, rather than the relational induction forms, of psychological control (e.g., Albrecht et al., 2007).

**The present study**

We aimed to advance the field by: (a) examining both a hostile (love withdrawal) and an inductive form of psychological control (guilt induction); (b) using a short-term longitudinal design to reveal bidirectional relations between parental psychological control and young Chinese American children’s bullying aggressive behavior; and (c) using different reporters for parenting (i.e., parents) and child bullying (i.e., teachers). We hypothesized that maternal love withdrawal would predict more child bullying 6 months later, whereas maternal guilt induction would predict less child bullying after controlling for the temporal stability of the bullying aggression construct. Because of the lack of relevant previous research, our examination of child effects on parenting practices in the current study was exploratory.

**Method**

**Participants**

Participants were 133 first-generation Chinese American mothers (mean age $M_{age} = 37.82$, standard deviation $SD = 4.55$) with young children ($M_{age} = 4.48$, $SD = 0.91$, 53% boys). Both parents were identified as first-generation Chinese immigrants, but 92% of the children were born in the United States (i.e., second generation). Mothers had been in the United States for 10.84 years on average ($SD = 5.56$) and were originally from Mainland China (81%), Taiwan (14%), or Hong Kong (5%). About 6% of the participants had high school or partial college, 25% had a bachelor’s degree, and 70% had a graduate or professional degree (e.g., master’s degree, doctoral degree).

**Procedure**

Participants were recruited from various organizations (e.g., Chinese churches, preschools, daycare centers, Chinese language schools, grocery supermarkets) across the Maryland-Washington, DC, region to reach potential participants with diverse socioeconomic backgrounds and maximize the representativeness of the sample. Data collection was conducted in the participants’ homes by bilingual research assistants. Teacher ratings of child bullying behavior were obtained primarily by calling, faxing, or e-mailing. Two waves of longitudinal data were collected spaced approximately 6
months apart. Ethical approval for the study was obtained from the University institutional review board of the University of Maryland, Baltimore County, and parents provided their written consent before data collection.

Measures

The measures that were originally in English were translated to Chinese by bilingual graduate students. An extensive translation and back-translation process was applied to ensure the linguistic equivalence and maintain the original meaning of the measures (Pena, 2007). The psychometric properties of the measures in our Chinese American sample were examined through confirmatory factor analysis models described below.

Maternal love withdrawal and guilt induction

Mothers reported on their parenting practices at both Wave 1 (W1) and Wave 2 (W2) using the Psychological Control Measure (Olsen et al., 2002) used in Chinese American samples (Yu et al., 2015). Mothers rated how often they exhibit each parenting behavior on a 5-point Likert scale: 1 (never), 2 (once in a while), 3 (half of the time), 4 (very often), and 5 (always). Four items each for love withdrawal (e.g., “Is less friendly with child if child does not see things my way”) and guilt induction (e.g., “Say, if you really care for me, you would not do things that cause me to worry”) were used. The parenting constructs showed modest to good reliability (for love withdrawal, $\omega = .63$ at W1 and $\omega = .81$ at W2; for guilt induction, $\omega = .81$ at W1 and $\omega = .79$ at W2).

Child bullying aggressive behavior

Preschool teachers rated children’s social behaviors with peers at both W1 and W2 using the Teachers’ Rating Scales (Hart & Robinson, 1996) that has been used in Chinese preschool children (e.g., Nelson et al., 2006). Verbal, physical, and relational bullying items were used to construct children’s bullying behavior (eight items). Similar to other studies of bullying (e.g., Rajendran et al., 2016), each bullying item was rated on a 3-point Likert scale: 0 (never), 1 (sometimes), and 2 (very often) to estimate the repeated nature and severity of this behavior. Sample items (Table 2) showed support our conceptualization of bullying aggressive behavior include, “Hits or kicks others for the sake of doing it,” “Makes fun of peer’s possessions (e.g., clothes, projects),” and “Tries to get others to dislike peer (e.g., whispering mean things about the child behind their back).” The bullying construct showed good reliability ($\omega = .95$ at W1 and $\omega = .93$ at W2).

Analytic plan

The rate of missing data was <5% and data were assumed to be missing completely at random based on Little’s Missing Completely at Random test $\chi^2$ (94, $N = 133$) = 83.82, $p = .765$ (Little, 1988). Because of the ordinal nature of data, the mean-and variance-adjusted weighted least squares estimator in Mplus, version 7 (Muthén & Muthén, 1998–2012), was used to conduct confirmatory factor analysis (CFA) and structural equation modeling (SEM), which makes use of all available data for model estimations. CFA was first conducted to determine whether love withdrawal and guilt induction should be examined in one-factor psychological control model or two-factor model with love withdrawal and guilt induction as separate dimensions. CFA was also conducted to test whether a single bullying factor or three factors of verbal, physical, and relational bullying should be used. Measurement equivalence (i.e., metric invariance) of the variables was then tested by comparing the models assuming equal factor loadings across waves to the freely estimated models based on $\chi^2$ difference tests. Regarding reliability of the measurement, we calculated $\omega$ coefficient, which is considered a better alternative to coefficient $\alpha$ (Revelle & Zinbarg, 2009; Yu, Sun, & Cheah, 2016). Finally, full structural equation modeling was conducted by estimating structural paths among parenting and child bullying constructs in a cross-lagged analysis. Model fit was evaluated by $\chi^2$ statistic, root mean square error of approximation (RMSEA), and Comparative Fit Index (CFI). CFI > .90 and RMSEA < .08 are considered adequate model fit (Hu & Bentler, 1998).

Results

CFA Models for parent and child constructs determined

A correlated two-factor CFA model was first estimated where love withdrawal and guilt induction were considered two correlated but separated dimensions of psychological control. A one-factor CFA model was then specified in which all eight items were loaded on a general construct of psychological control at each wave. The $\Delta \chi^2$ test showed that the two-factor model fit the data significantly better than the one-factor model, $\Delta \chi^2 (5, N = 133) = 59.56, p < .0001$; therefore, the two-factor model was retained for further analysis. A similar procedure was implemented to test the bullying model. Nonsignificant $\Delta \chi^2$ test indicated that the bullying items were best presented by one-factor bullying rather than the three factors of verbal, physical, and relational bullying, $\Delta \chi^2 (14, N = 133) = 22.81, p = .064$.

Measurement equivalence established

An unconstrained retained model was first specified for data at each wave where factor loadings were freely estimated. A constrained model was run next, which specified the factor loadings from the latent construct to the same indicators to be equal between the two waves. Finally, a $\Delta \chi^2$ test was conducted. For parenting, both the freely estimated ($\chi^2 [86, N = 133] = 134.96, p = .001$, CFI = .96, and RMSEA = .07) and constrained ($\chi^2 [92, N = 133] = 135.90, p = .002$, CFI = .96, and RMSEA = .06) parenting models achieved adequate model fit. Similarly, for child bullying, both the freely estimated ($\chi^2 [95, N = 133] = 97.07, p = .422$, CFI = 1.00, and RMSEA = .01) and constrained ($\chi^2 [102, N = 133] = 100.94, p = .511$, CFI = 1.00, and RMSEA = .00) models had adequate absolute model fit. Moreover, for parenting ($\Delta \chi^2 [6, N = 133] = 6.82, p = .338$) and child bullying ($\Delta \chi^2 [7, N = 133] = 3.82, p = .800$), $\Delta \chi^2$ tests were nonsignificant, indicating establishment of measurement invariance of both constructs. Correlations among the latent study constructs are presented in Table 1.

Relations over time between parenting and child bullying aggression

A cross-lagged SEM model was built to examine the reciprocal effects over time between parenting practices and child bullying. The “parenting effect” paths from W1 parenting to W2 child bullying and “child effect” paths from W1 child bullying to W2 parenting practices were of major interests. The autoregressive paths from W1 parenting and child bullying behavior to W2 parenting and child bullying were controlled for temporal stability, and
paths from covariates (i.e., child age, child gender, and maternal education) to all constructs were included as demographic controls. Concurrent associations between parenting practices and child functioning were also estimated at each wave.

None of the covariates significantly predicted W2 parenting or child bullying aggression. Moreover, W1 child bullying did not predict W2 love withdrawal, and the cross-lagged paths between maternal love withdrawal and guilt induction were not significant. These nonsignificant covariates and predictors of W2 parenting and child constructs were gradually pruned out of the model to avoid overcontrol. The final model achieved acceptable model fit (Figure 1), \( \chi^2 (534, N = 133) = 616.85, p = .006, CFI = .93, \) and \( \text{RMSEA} = .04. \) Standardized factor loadings of the constructs are shown in Table 2.

### Table 1. Descriptive statistics and correlations among the latent study constructs and demographic variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. W1 love withdrawal</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. W1 guilt induction</td>
<td>.58*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. W1 bullying behavior</td>
<td>.01</td>
<td>−.11</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. W2 love withdrawal</td>
<td>.81*</td>
<td>.49*</td>
<td>−.01</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. W2 guilt induction</td>
<td>.29*</td>
<td>.83*</td>
<td>.10</td>
<td>.53*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. W2 bullying behavior</td>
<td>.34*</td>
<td>−.03</td>
<td>.23b</td>
<td>.30a</td>
<td>.01</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Child age</td>
<td>.11</td>
<td>.17</td>
<td>−.05</td>
<td>.18</td>
<td>.20b</td>
<td>.01</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Child gender</td>
<td>.11</td>
<td>.10</td>
<td>.02</td>
<td>.15</td>
<td>.06</td>
<td>−.004</td>
<td>.08</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>9. Maternal education</td>
<td>−.24c</td>
<td>−.35a</td>
<td>.15</td>
<td>−.17b</td>
<td>−.22b</td>
<td>.18</td>
<td>.09</td>
<td>.02</td>
<td>—</td>
</tr>
<tr>
<td>M</td>
<td>2.59</td>
<td>3.67</td>
<td>0.98</td>
<td>2.55</td>
<td>3.88</td>
<td>1.01</td>
<td>4.48</td>
<td>0.53</td>
<td>6.63</td>
</tr>
<tr>
<td>SD</td>
<td>1.80</td>
<td>2.83</td>
<td>1.91</td>
<td>2.01</td>
<td>2.84</td>
<td>1.77</td>
<td>0.91</td>
<td>0.50</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Note: *p < .001; *p < .05; *p < .01.

### Table 2. Standardized item factor loadings at both waves

<table>
<thead>
<tr>
<th>Constructs and items</th>
<th>W1</th>
<th>W2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal love withdrawal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I ignore my child when he/she tries to get attention [if he/she misbehaves].</td>
<td>.60</td>
<td>.80</td>
</tr>
<tr>
<td>If my child has hurt my feelings, stop talking to my child until he/she pleases me again.</td>
<td>.46</td>
<td>.64</td>
</tr>
<tr>
<td>Is less friendly with my child if my child does not see things my way.</td>
<td>.57</td>
<td>.75</td>
</tr>
<tr>
<td>Doesn’t pay attention when child is talking to me [if he/she misbehaves].</td>
<td>.54</td>
<td>.70</td>
</tr>
<tr>
<td>Maternal guilt induction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes my child aware of how much I sacrifice or do for him/her.</td>
<td>.69</td>
<td>.66</td>
</tr>
<tr>
<td>Says, if you really care for me, you would not do things that cause me to worry</td>
<td>.81</td>
<td>.78</td>
</tr>
<tr>
<td>Tells my child of all the things I have done for him/her.</td>
<td>.77</td>
<td>.74</td>
</tr>
<tr>
<td>Tells child that I get embarrassed when he/she does not meet my expectations.</td>
<td>.61</td>
<td>.59</td>
</tr>
<tr>
<td>Child bullying aggressive behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to embarrass peers by making fun of them in front of other children.</td>
<td>.84</td>
<td>.80</td>
</tr>
<tr>
<td>Threatens to push a peer off a toy (e.g., tricycle, playhouse) or ruin what peer is working on unless he/she shares.</td>
<td>.81</td>
<td>.78</td>
</tr>
<tr>
<td>Intimidates or threatens to get something he/she wants.</td>
<td>.91</td>
<td>.88</td>
</tr>
<tr>
<td>Hits or kicks others for the sake of doing it.</td>
<td>.71</td>
<td>.68</td>
</tr>
<tr>
<td>Laughs at other children in derogatory ways.</td>
<td>.87</td>
<td>.84</td>
</tr>
<tr>
<td>Makes fun of peer’s possessions (e.g., clothes, projects).</td>
<td>.89</td>
<td>.85</td>
</tr>
<tr>
<td>Tries to get others to dislike peer (e.g., whispering mean things about the child behind his/her back).</td>
<td>.84</td>
<td>.80</td>
</tr>
<tr>
<td>Tells other children that they can’t play with the group unless they do what the group wants them to do.</td>
<td>.74</td>
<td>.71</td>
</tr>
</tbody>
</table>

Note: Standardized factor loading of each item at W1 and W2. All factor loadings were significantly different from 0. W1 = Wave 1; W2 = Wave 2.
and relational aggression (e.g., Nelson et al., 2006, 2013) in both interdependence- and independence-oriented cultures. Our parental expectations (Barber, 1996; Hart et al., 1998). Love withdrawal is often included as a component of general psychological control that parents use to manipulate the attachment relationship with children by implying that love and acceptance will not be restored until the child changes his or her behavior to meet parental expectations. A child effect was found for the prediction of guilt induction (β = .81, SE = .06, p < .001, 95% CI [0.69, 0.93]), whereas W1 child bullying behavior did not predict W2 maternal love withdrawal after controlling for its temporal stability (β = .85, SE = .07, p < .001, 95% CI [0.70, 0.99]).

Discussion
By using SEM to analyze short-term longitudinal data, this study provided empirical evidence for the reciprocal relations between psychologically controlling parenting and child bullying aggressive behavior at school in a sample of Chinese American mothers with young children. Differential effects of the two psychological control dimensions (i.e., love withdrawal and guilt induction) were revealed. A child effect was found for the prediction of W1 child bullying on W2 maternal guilt induction (not love withdrawal) only.

Parent effects: Love withdrawal versus guilt induction
Supporting previous research on young children in mainland China and Russia, the denial of parental acceptance as reflected in maternal love withdrawal resulted in Chinese American children’s bullying aggressive behaviors with peers (Nelson et al., 2006, 2013). Love withdrawal may represent a hostile form of psychological control that parents use to manipulate the attachment relationship with the child by implying that love and acceptance will not be restored until the child changes his or her behavior to meet parental expectations (Barber, 1996; Hart et al., 1998). Love withdrawal is often included as a component of general psychological control measures used in most studies and may contribute to findings in which psychological control is associated with physical and relational aggression (e.g., Nelson et al., 2006, 2013) in both interdependence- and independence-oriented cultures. Our results were consistent with these previous studies and supported the conjecture that love withdrawal denotes parental hostility through an unhealthy manipulation of the parent–child relationship and threatens the basic bond between parent and child and is thus related to child maladjustment (Rohner et al., 2005). Importantly, our study appears to be the first in extending these findings to child bullying aggression and Chinese immigrant families living in the United States.

Our finding on maternal love withdrawal also provided some evidence for the hostile nature of this psychological control dimension because mothers might withdraw their love and attention to express their anger and disappointment (i.e., reflecting parent-centered goals) more than to correct their children’s misbehavior. Such displays of hostility and rejection may also lead to felt insecurity as well as undermine children’s social competence by serving as behavioral models for their children to imitate and interact in hostile and domineering ways with peers in school (Nelson et al., 2013; Rohner et al., 2005; Rubin, Coplan, & Bowker, 2009).

In contrast, we found that maternal guilt induction predicted less child bullying aggression 6 months later. In the United States or other independence-oriented cultures that value individualism, guilt induction may be perceived as reflecting a lack of parental support and more parental rejection and thus impede positive development in children (Rudy et al., 2014). In interdependence-oriented cultures, however, children may be more likely to interpret parental guilt induction as parental concern and caring for children’s well-being rather than feelings of rejection because of children’s more interconnected sense of selves within these cultural contexts. These findings are consistent with previous research in which guilt induction was not associated with problematic child functioning in samples with interdependence-oriented cultural values (Rudy & Halgunseth, 2005) or was reported to be correlated with positive child adjustment outcomes (Rudy et al., 2014). These findings, including ours, are also consistent with research showing that Asian American children experienced more interdependence with their mothers and were more motivated by their mothers’ controlling parenting compared with European American children (Fu & Markus, 2014).

Moreover, guilt inductive practices emphasize children’s interpersonal sensitivity and obligations toward their parents. Chinese immigrant mothers may use guilt induction to foster culturally valued qualities and motivate their children to reciprocate parents’ sacrifices through proper social conduct. Such practices may help cultivate empathy to enhance children’s social competence within the peer group (Fung & Lau, 2012) and lead to fewer bullying problems in young children. We extended cultural-specific effects of guilt induction to a Chinese American sample, implying the retention and value of such cultural processes for first-generation Chinese immigrant mothers of young children. Given that older children and adolescents were found to be less accepting of maternal guilt induction (Rote & Smetana, 2017), the positive effects of guilt induction may not be generalized to later developmental periods. Future studies should examine the effects of guilt induction in older children and adolescents including those from Chinese American families.

Another note relevant to the interpretation of the effect of guilt induction is that, despite their statistical distinctiveness, both love withdrawal and guilt induction shared to a certain degree the general intrusiveness of psychologically controlling parenting (Yu et al., 2015). The negative associations between maternal education and both parenting practices provide some support for this

Figure 1. The final cross-lagged structural equation model for maternal parenting and child bullying. Note: Items that constructed the latent variables are not drawn in the figure. *p < .05. **p < .01. ***p < .001.

95% CI [0.03, 0.41]), whereas W1 maternal guilt induction predicted less W2 child bullying (β = -.29, SE = .13, p = .032, 95% CI [−.55, −.03]). With respect to child effects, more W1 child bullying predicted more W2 maternal guilt induction (β = .18, SE = .09, p = .039, 95% CI [0.01, 0.35]) after controlling for the temporal stability of guilt induction (β = .81, SE = .06, p < .001, 95% CI [0.69, 0.93]), whereas W1 child bullying behavior did not predict W2 maternal love withdrawal after controlling for its temporal stability (β = .85, SE = .07, p < .001, 95% CI [0.70, 0.99]).
argument given that parents with higher educational levels are less likely to use controlling parenting discipline (Tamis-LeMonda, Briggs, McCloy, & Snow, 2009). Our result therefore reflects the unique or remaining positive effect of maternal guilt induction (i.e., being associated with less bullying) after controlling for its negative implications for child development that were shared with love withdrawal. The total relation between T1 guilt induction and T2 child bullying aggression comprised the positive direct effect of guilt induction and the negative unanalyzed effect through its correlation with love withdrawal, which also explained why the zero-order correlation between the two variables was nonsignificant.

**Child effects: W1 bullying on W2 guilt induction**

The finding that Chinese American children’s engagement of bullying aggressive behavior predicted mothers’ greater use of guilt induction but not love withdrawal provided some evidence for the relative beneficial nature of gentle guilt inductive practices. Children’s bullying behavior is perceived by Chinese American parents to be moral misconduct or transgressions and evaluate such behaviors negatively (Cheah & Rubin, 2004). Accordingly, because bullying behavior and hurts other children, Chinese American mothers may increase their use of guilt induction practices with their children to emphasize the consequences of children’s misbehaviors on others (Ho, Fu, & Ng, 2004), to help children internalize moral values, and to emphasize children’s interdependence with parents.

**Limitations and future directions**

Several limitations in the present study need to be acknowledged. First, our sample was small, and thus not ideal for SEM analysis. Future research should include larger samples to test the identified patterns of associations. In addition, our sample comprised middle-class, educated Chinese Americans. Although this sample was representative of the first-generation Chinese population in the Maryland-Washington, DC area (McCabe, 2012), the generalization of these findings to other Chinese populations, such as families of different socioeconomic status and those residing in other regions of the United States, should be made cautiously. In addition, although our aim was to understand within-culture effects of psychologically controlling parenting on the development of Chinese American children, the inclusion of comparison groups of mainland Chinese and European American families would allow for a more direct examination of culturally shared vs. culture-specific parenting effects on children’s psychosocial development.

The third limitation concerns the measurements of constructs. Mothers’ self-reports of their parenting has the benefit of capturing a global view of parenting but can also suffer from social desirability and recall biases (Winsler, Madigan, & Aquilino, 2005). Moreover, both the parenting and child bullying constructs were measured by single informants (i.e., parents and teachers, respectively), which could potentially affect the reliability and validity of their assessment. Although teacher ratings of aggression are considered valid for preschooler children because their engagement of bullying is unlikely to be inhibited by the presence of teachers (Crick, Casas, & Mosher, 1997), as a single source may not capture all aggressive scenarios in child interactions with peers. Future studies should consider multiple measurement tools and multiple informants when possible to collect complementary information. Finally, although our two-wave cross-lagged design allows us to make some causal inferences, it does not definitively establish causality or allow for examination of whether the lagged effects would persist over time. Thus, future studies can consider cross-lagged designs with three or more waves to test the persistence of parenting and child effects over time as well as experimental or interventional approaches to replicate our findings.

**Implications and conclusions**

Our short-term longitudinal study advances knowledge of bidirectional relations between psychologically controlling practices and children’s bullying aggressive behaviors. The negative effect of maternal love withdrawal on child development finding was consistent with those from previous studies on Western samples, suggesting the culturally shared negative connotations of such practices even among Chinese children residing in the United States. In contrast, the beneficial effects of guilt induction on Chinese American children’s bullying aggressive behavior differed from previous findings on Western children. Our results highlight the importance of construct specificity and cultural context in understanding the effects of parenting on children’s social development. Practically, our findings highlight the critical role of parenting as a key area for clinical invention of early bullying aggressive behavior. In particular, this study may inform cultural adaptations of existing prevention and evidence-based family intervention programs that aim to promote healthy child development among ethnic minority families (Kumpfer, Magalhães, & Xie, 2017).

**Author ORCIDs.** Jing Yu 0000-0002-1219-2391.

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**References**


