

This article was downloaded by: [University of Ottawa]

On: 14 January 2014, At: 07:50

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Attachment & Human Development

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rahd20>

### Psychometric properties of the Mother and Father Compulsive Caregiving Scales: a brief measure of current young adult caregiving behaviors toward parents

Molisa Meier<sup>a</sup>, Jodi Martin<sup>a</sup>, Jean-François Bureau<sup>a</sup>, Matt Speedy<sup>a</sup>,  
Christine Levesque<sup>a</sup> & Marie-France Lafontaine<sup>a</sup>

<sup>a</sup> School of Psychology, University of Ottawa, Ottawa, Canada

Published online: 10 Jan 2014.

To cite this article: Molisa Meier, Jodi Martin, Jean-François Bureau, Matt Speedy, Christine Levesque & Marie-France Lafontaine, Attachment & Human Development (2014): Psychometric properties of the Mother and Father Compulsive Caregiving Scales: a brief measure of current young adult caregiving behaviors toward parents, Attachment & Human Development, DOI: [10.1080/14616734.2013.870809](https://doi.org/10.1080/14616734.2013.870809)

To link to this article: <http://dx.doi.org/10.1080/14616734.2013.870809>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms &

Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

## Psychometric properties of the Mother and Father Compulsive Caregiving Scales: a brief measure of current young adult caregiving behaviors toward parents

Molisa Meier, Jodi Martin, Jean-François Bureau\*, Matt Speedy, Christine Levesque and Marie-France Lafontaine

*School of Psychology, University of Ottawa, Ottawa, Canada*

*(Received 27 September 2012; accepted 25 November 2013)*

This study assessed the psychometric properties of the Mother and Father Compulsive Caregiving Scales (MFCC). Exploratory ( $N = 1283$ , 71.5% Caucasian) and confirmatory ( $N = 2203$ , 76.6% Caucasian) factor analyses revealed two-factor structures for each parent: *burden* and *autonomy*. Correlational analyses with retrospective self-reports of parent-child relationship quality, family risk indicators, and psychological symptoms demonstrated similar convergent validity for both mother and father burden factors while, interestingly, the findings for mother and father autonomous factors showed different patterns. Results support that the MFCC is a short and convenient measure that would be clinically useful for the assessment of controlling/caregiving behaviors in young adulthood.

**Keywords:** compulsive caregiving; parentification; family risk; quality of parent-child interactions; young adulthood; psychometric properties

Bowlby (1969/1982) noted that “the reversal of roles between child, or adolescent, and parent, unless very temporary, is almost not only a sign of pathology in the parent, but a cause of it in the child” (p. 377). Such a reversal of roles is theorized to emerge when the parent, rather than the child, is overdependent within the dyad (Bowlby, 1973). In role reversal, the parent seeks emotional support from the child, likely stemming from past negative relationships with their own parents (Bowlby, 1973). This is important to note in order to distinguish between role reversal with a parent and simply having an over-protective parent who holds reality-based fears for their child (Bowlby, 1973). Bowlby’s idea of role reversal is at the origin of the concept of controlling/caregiving attachment, which becomes evident during the preschool years, and has been shown to be one possible subsequent attachment pattern of children who demonstrated in infancy a disorganized attachment to their mother (Main & Solomon, 1990). In infancy, disorganized attachment is understood as reflecting a lack of a coherent attachment strategy, but by 6 years disorganized behaviour in infancy has evolved into controlling strategies and behavior, either caregiving or punitive, first documented in two independent longitudinal studies (Main & Cassidy, 1988; Wartner, Grossman, Fremmer-Bombik, & Suess, 1994). Controlling/caregiving attachment behavior involves the abdication of children’s own needs in order to respond to the needs of their parents, as seen in behaviors showing an attempt to cheer them up or provide them with emotional support (see Moss, Bureau,

---

\*Corresponding author. Email: [jean-francois.bureau@uottawa.ca](mailto:jean-francois.bureau@uottawa.ca)

St. Laurent, & Tarabulsy, 2011). Children adopting controlling/caregiving strategies are expected to demonstrate evidence of maladaptation, such as internalizing problems, due to feeling burdened by caregiving responsibilities (e.g., Bowlby, 1969/1982; Moss, Cyr, & Dubois-Comtois, 2004; O'Connor, Bureau, McCartney, & Lyons-Ruth, 2011). However, empirical studies have found mixed support for this idea, perhaps because caregiving behavior is not perceived negatively by others who commonly provide reports of children's social adaptation (e.g., teachers, parents) during childhood. Assessing the potential negative effects of caregiving through the individual's own self-reports provide less unbiased responses compared to the reports from parents and teachers. Alternatively, as caregiving behavior toward parents is expected to continue into adolescence or young adulthood, the negative effects of adopting a caregiving internal working model of relationships may only emerge during this time period when there are increased desires to become independent from parents, and to develop intimate relationships outside of the family. A failure to appropriately individuate from parents, and build meaningful, healthy intimate relationships outside of the family, may lead to increased issues in social adaptation during adolescence and young adulthood. These possibilities remain uninvestigated, perhaps due to the lack of a convenient and brief measure assessing caregiving behavior toward parents during this later developmental period. The current study addresses the potential psychological effects of young adults' caregiving toward their parents by adapting the Mother and Father Compulsive Caregiving Scales (MFCC), a measure to assess current caregiving behaviors in young adults, and by examining this measure's psychometric properties, particularly in association with psychosocial correlates.

### **Psychosocial correlates of controlling behavior in childhood**

Infant attachment disorganization is a key predictor of psychological issues later in life (Carlson, 1998) and is assumed to develop when an infant is confronted by a caregiver who is frightening or frightened (Main & Hesse, 1990) and/or emotionally unavailable (Lyons-Ruth, Bronfman, & Parsons, 1999). Over time, as mentioned above, disorganized early attachments tend to develop into controlling behaviors, underpinned by a role reversed relationship. As preschoolers have an increasing ability to coordinate behaviors to achieve attachment goals (Bowlby, 1969/1982), it has been theorized that disorganized infants develop controlling behaviors toward distressing caregivers around this developmental time period in order to regulate their own emotional states (Solomon, George, & De Jong, 1995). These findings are in keeping with Bowlby's (1980) writings on role inversion between parent and child observed in families that have experienced a loss of a parent. Bowlby noted that widowed parents may confide in their child, expect them to hold greater responsibilities, or may see their child as a substitute for their deceased spouse. It is important to note that such role inversion has also been observed empirically in children who showed disorganized behavior in infancy but have not lost one of their parents (Main & Cassidy, 1988; Wartner et al., 1994). Bowlby (1980) also theorized that role inversion may result in compulsive caregiving in conditions whereby the parent places responsibility onto the child to care for him or her or if the parent provides inadequate caregiving. It was also speculated that these individuals are inclined to select romantic partners that have needs requiring compulsive care. A central tenet of attachment theory is that controlling/caregiving attachment can lead to psychological issues in the child (Ainsworth, 1989; Bowlby, 1969/1982, 1980); as such, this dyadic interactional pattern is of clinical importance.

Two types of controlling strategies (caregiving and punitive) have been associated with negative parent–child interactions and maladaptive psychosocial outcomes (Moss et al., 2004; O'Connor et al., 2011). While studies regarding the impact on controlling/punitive attachment are relatively homogenous, such as finding associations with externalizing and internalizing issues in childhood (Bureau, Easterbrooks, & Lyons-Ruth, 2009a; Moss et al., 2004; O'Connor et al., 2011), there have been mixed results concerning controlling/caregiving children and related psychological effects. For instance, O'Connor et al. (2011) conducted a prospective study consisting of 1140 three-year-old preschooler–mother dyads from the National Institute of Child Health & Human Development (NICHD) sample, and found that the controlling/caregiving group displayed higher levels of disruptive behavior than the secure and insecure-organized groups. In contrast, Moss et al. (2004) found that controlling/caregiving children had significantly more internalizing issues than secure children in a sample of 242 six-year-olds. A study of eight-year-old children ( $n = 43$ ) found that controlling/caregiving behavior was not related to concurrent externalizing or internalizing issues, although these behaviors were predicted by maternal withdrawal in infancy (Bureau et al., 2009a). The authors suggest that caregiving toward mothers may be related to emotional and/or physical maternal unavailability and not necessarily to abuse history or to maternal hostility. It was also suggested by the authors that caregiving children may manifest their anxiety in other forms, such as by comforting their parents, as a way to hide their vulnerability or anger and thus maintaining an image of competence. These findings reveal that although caregiving behaviors in middle childhood were not associated with behavioral problems, they were nonetheless linked with problematic interactions between mother and child in infancy.

Convergent findings are offered by Easterbrooks, Bureau, and Lyons-Ruth (2012) who showed that maternal emotional passivity and withdrawal, maternal insensitivity, and maternal hostility were all associated with the child's concurrent caregiving behavior in middle childhood. In another study, controlling behaviors observed in mother–child dyadic interactions during middle childhood were related to maternal helplessness, such as mothers not knowing how to handle their children or how to provide care (George & Solomon, 1996). Together, the results from these studies suggest there is a relational context whereby children provide caregiving, such as when parents abdicate their own parental duties either due to being withdrawn, insensitive, or not physically present with their children (Bowlby, 1980). As such, caregiving behaviors might serve as a mechanism to improve their mother's affect in order to gain her engagement, which may be seen as an adaptive and resilient strategy.

In summary, the literature has been inconsistent in finding an association between caregiving behaviors in childhood and problems in social adaptation. This is potentially attributable to the fact that caregiving behaviors may go unnoticed in classroom and home settings as they are perceived as benevolent. Moreover, children who are caregiving may be misinterpreted as being shy, and their behaviors may not be seen as worrisome (Easterbrooks et al., 2012). O'Connor et al. (2011) also raised this potential issue of under-reporting, urging caution, as parental and teacher reports of a caregiving child may underestimate the child's actual behavioral difficulties. Thus, as parents might be under-reporting behavioral issues of their caregiving children, the link between caregiving behaviors and negative outcomes may be more clearly identified in self-report measures, particularly in later years when children can report on their own functioning, and more consistent negative outcomes may be detected using these assessments.

Just as self-reports of adolescents may accurately reflect the extent of role reversals in their relationships with parents, it is possible that the negative impact of childhood

caregiving behaviors becomes more evident after the individual matures and enters increasingly intimate relationships with romantic partners, in which there is a greater emphasis on reciprocal caregiving. Given the importance of the caregiving system in romantic relationships, the mental representations of controlling/caregiving individuals could lead to maladjustment in young adulthood as their compulsive caregiving tendencies may lead them to select romantic partners who complement their caring and sacrificial inclinations (Bowlby, 1980). As such, there is the risk that these individuals could be exploited and/or remain in an emotionally or physically harmful relationship. For example, caregiving in middle childhood has been linked to experiencing severe physical abuse by a romantic partner in young adulthood (Bureau, Easterbrooks, & Lyons-Ruth, 2009b). Moreover, on the basis of the complementary hypothesis of romantic partner selection (see Holmes & Robinson, 2009), it can be assumed that if a controlling/caregiving individual is in a relationship with someone who has a non-complementary internal working model (e.g., securely or avoidantly attached), he or she may feel inadequate and anxious as his or her view of self and of other are not confirmed; namely, the need to provide care for others. As such, it would be expected that outside of the parent-child relationship, maladaptive effects of this strategy may be more apparent whereby the impact of controlling/caregiving internal working models would be more destructive in romantic relationships. Therefore young adults who were caregiving as children may be at risk for negative outcomes after childhood; however, the literature has not comprehensively explored current caregiving as a potential risk factor in adulthood, as there is a lack of a convenient measure assessing for controlling/caregiving behaviors in young adults.

### **Existing measures of controlling/caregiving behaviors in young adults**

Within the limited literature base available on controlling/caregiving behaviors in youth from an attachment perspective, the Goal-Corrected Partnership in Adolescent Coding System (GPACS; Lyons-Ruth, Henninghausen, & Holmes, 2005) assesses for controlling behaviors between adolescent-parent dyads through coding of an adolescent-parent reunion, and a discussion task concerning a topic of disagreement. The GPACS provides a rich source of information which is beneficial for research and offers classifications that are clinically relevant. However, the coding system might be less convenient for clinical purposes as it may be difficult at times to videotape parent-adolescent interactions within a private practice setting and to involve parents for these sessions. Thus, a short self-report measure, developed from an attachment framework, could be useful in filling the void of current measures of compulsive caregiving behavior in young adulthood.

### **The Caregiving Questionnaire: the compulsive caregiving scale**

An existing measure of caregiving lying within attachment theory, which focuses on the affective components of caregiving, is the Caregiving Questionnaire (CQ; Kunce & Shaver, 1994). The CQ assesses current caregiving behavior within adult romantic relationships across four subscales: (1) proximity versus distance (ability to be physically and psychologically available to partner); (2) sensitivity versus insensitivity (recognition of signs of partner's feelings and needs); (3) cooperation versus control (ability to cooperatively facilitate partner's needs and problem-solve with partner); and (4) compulsive caregiving (over-involvement in the problems of their partner). The CQ has enabled the investigation of the link between attachment orientations to caregiving styles in romantic couples where there appears to be consistencies between attachment orientation

and type of caregiving provided to romantic partners (see Feeney, 1996; Feeney & Collins, 2001; Feeney & Hohaus, 2001; Julal & Carnelley, 2012; Millings & Walsh, 2009). It should be noted that many studies using the CQ have combined all subscales except for compulsive caregiving and relabelled them as *responsive caregiving* (e.g., proximity, sensitivity, and cooperation subscales), while the compulsive caregiving subscale remained unchanged (Feeney, 1996; Feeney & Hohaus, 2001; Julal & Carnelley, 2012). Generally, romantic attachment security has been associated with higher levels of responsive caregiving and/or to lower levels of compulsive caregiving (Feeney, 1996; Feeney & Hohaus, 2001). Further, attachment anxiety (high anxiety, or preoccupied) has been related to more compulsive caregiving, less cooperative caregiving, and/or less responsive caregiving (Feeney, 1996; Feeney & Hohaus, 2001; Julal & Carnelley, 2012; Millings & Walsh, 2009). Finally, attachment avoidance was associated with lower responsive caregiving, and/or lower cooperative caregiving (Feeney, 1996; Feeney & Hohaus, 2001; Millings & Walsh, 2009). These findings support the notion that the attachment and caregiving systems are interrelated and are both guided by an individual's internal working model of self and other (Feeney, 1996; Feeney & Hohaus, 2001). Some studies have found that earlier experiences of maternal overprotection or maternal compulsive caregiving predicted current compulsive caregiving within romantic relationships (Feeney, 1996; Julal & Carnelley, 2012).

Interestingly, for our current purposes, in two studies, the compulsive caregiving subscale appears to stand apart from the other subscales as it was moderately correlated with only one other subscale (cooperation versus control), while the other subscales showed moderate to strong intercorrelations (Feeney, 1996; Kuncze & Shaver, 1994). Specifically, the compulsive caregiving subscale assesses excessive displays of caring behaviors whereby the individual becomes preoccupied and may experience stress and guilt toward their partner's problems. Unlike other measures of adult romantic caregiving which assess for more general caregiving patterns, the compulsive caregiving subscale of the CQ assesses particularly harmful caregiving behaviors. This concept is akin to the controlling/caregiving behaviors described above, and is well-suited for adaptation to assess caregiving behavior within the parent-child relationship in young adulthood. Thus, the current study adapted the compulsive caregiving subscale to assess concurrent caregiving toward parents to fill a void in the literature, and to enable quick assessment of caregiving behaviors between parents and young adult children, which may be of particular clinical importance.

### Objectives and hypotheses

The primary objective of the study was to examine the psychometric properties of the Mother and Father Compulsive Caregiving Scales (MFCC), two brief self-report questionnaires (one for mother, one for father). The questionnaires were adapted from the compulsive caregiving subscale of the CQ to assess current caregiving behaviors of young adults toward both mother and father. An exploratory factor analysis (EFA) was performed to determine the factor structure of the scale, and a confirmatory factor analysis (CFA) was used to cross validate the established factor structure within a different sample. It was hypothesized that the EFA would yield one factor relating to caregiving interactions with parents, as in the original CQ compulsive caregiving subscale. Internal consistency of the scales was also assessed. Convergent validity was examined through correlations with both mother and father scales and each of the following: parent-child relationship quality, family risk (including abuse history,

socioeconomic status, and parental divorce), and psychological well-being. Higher scores on the caregiving scales were expected to be associated with parent-child relational problems in young adults, based on past findings that childhood controlling/caregiving strategies are related to a poor relational context with mothers (Bureau et al., 2009a; Easterbrooks et al., 2012; Solomon et al., 1995). It was further expected that family risk would be greater in individuals adopting caregiving behavior toward parents in young adulthood, given the existing links between maltreatment history and infant disorganization (Cicchetti & Barnett, 1991; van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999), and the notion that some disorganized infants adopt caregiving strategies in childhood. Lastly, although there is limited research examining the psychological impact of concurrent caregiving toward parents, the literature points to associations with maladaptive outcomes (Bureau et al., 2009b; Lyons-Ruth, Bureau, Hennighausen, Holmes, & Easterbrooks, 2009), so caregiving scores were also expected to be related to poor psychological well-being.

## Method

### *Participants*

Two samples were used in the current study. The first sample, used for the EFA, comprised 1283 students between the ages of 17 and 25 ( $M = 19.28$ ,  $SD = 1.37$ ; 996 females). The second sample, used for the CFA, consisted of 2203 undergraduates from the same age range ( $M = 19.38$ ,  $SD = 1.51$ ; 1699 females). The majority of participants in Sample One were primarily English speakers (76.1%) and Caucasian (71.5%). The remaining participants reported the following ethnicities: 8.9% Asian, 7.1% Black, 5.8% Middle Eastern, and 6.7% identifying as one of Latino/Hispanic, Native, or Other. While a large proportion of participants reported living with their parent (46.3%), others lived in university residences (26.4%), or rented accommodations (24.3%). Characteristics of Sample Two were similar, such that 74.3% were English speaking, 76.6% were of Caucasian descent, followed by 7.0% Asian, 5.9% Black, 5.2% Middle Eastern, and 6.1% from Latino/Hispanic, Native, or Other ethnicities. Lastly, 54.4% of participants in Sample Two reported living with their parents, compared to 27% living in university residences, and 23.3% who lived in rented accommodations.

### *Procedure*

Participants in both samples were recruited from introductory psychology classes. Questionnaires were completed online through a secure link to *Survey Monkey*, and no identifying information were obtained from the participants (e.g., IP addresses, student numbers), other than the identifying code assigned to them. Participants in both samples completed the MFCC scales and a sociodemographic measure as part of a larger battery of questionnaires. For both samples, completion of the battery of questionnaires took between one and one and a half hours. After completing the questionnaires, participants were provided a mental health resource contact list to use at their discretion should they have experienced any distress from completion of the questionnaires. All procedures for this study were approved by the institution's Research Ethics Board.



## Measures

### *Compulsive caregiving*

The MFCC is a measure of young adults' current caregiving behaviors toward their parents. It was adapted from the compulsive caregiving subscale of the CQ (Kunce & Shaver, 1994) by exchanging the word *partner* for either *mother* or *father* as required for each item. The adapted questionnaire includes two scales, one which is rated for mothers and one rated for fathers, each consisting of eight self-report items with a 6-point Likert response scale ranging from 1 (*not very descriptive of me*) to 6 (*very descriptive of me*). In responding to this questionnaire, participants assessed the extent to which statements apply to their current relationship with each parent (e.g., "I frequently get too wrapped up in my mother's/father's problems and needs"). Internal consistency for the original compulsive caregiving subscales of Kunce and Shaver's (1994) original measure is strong at .80.

### *Quality of the parent-child relationship*

The Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) was used to measure the individual's perception of his or her parent's attitudes and behaviors (e.g., "My mother/father spoke to me with a warm and friendly voice") up to the age of 16. The PBI was rated separately for mothers and for fathers, with each scale consisting of 25 self-report items on a 4-point Likert scale from *very like* to *very unlike*. Items on both the mother and father scales are grouped in two subscales: overprotecting/control (13 items) and care (12 items). A number of studies have established sufficient reliability and validity of the PBI in samples of young adults (see Lopez & Gover, 1993 for a review). In the current study, all four PBI subscales showed good to excellent internal consistency (mother care,  $\alpha = .92$ ; father care,  $\alpha = .93$ ; mother overprotection/control,  $\alpha = .84$ ; father overprotection/control,  $\alpha = .84$ ).

The Adolescent Unresolved Attachment Questionnaire (AUAQ; West, Rose, Spreng, & Adam, 2000) retrospectively assesses three aspects of the childhood attachment relationship: failed protection (4 items measuring the perceptions of the degree to which a parent abdicated his or her caregiving role), dysregulation/anger (3 items measuring the anger one may feel toward a parent who was unavailable or unhelpful), and fear of abandonment (3 items which assess the participant's perceived childhood fear of parental abandonment or rejection). Responses to each item are given on a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). The AUAQ has demonstrated significant test-retest reliability for all of its scales (ranging from .69 to .80) and high convergent validity with the AAI (West et al., 2000). In the current study, the AUAQ demonstrated strong internal consistency (failed protection,  $\alpha = .90$ ; anger,  $\alpha = .82$ ; fear,  $\alpha = .81$ ).

## **Family risk characteristics**

### *Childhood maltreatment*

Physical and verbal abuse experiences were assessed by two single items, "How often have you been hit or beaten by one of your parents?" and "How often have you been put down or yelled at by one of your parents?" Both questions were answered based on a 5-point response scale: *never* (1), *sometimes* (2), *often* (3), *very often* (4), and *I don't know* (5). Responses were dichotomized, with *never* answers reflecting a no category (0) and *sometimes*, *often*, and *very often* responses comprising the yes category (1); *I don't know* responses were eliminated. An additional question, "How often did you witness physical

violence between your parents?” was used to determine whether participants had witnessed violence between their parents. This question was answered on the same 5-point scale used for the physical and verbal abuse questions. Responses were similarly dichotomized, such that *I don't know* responses were eliminated from the transformed variable.

#### *Socioeconomic risk and divorce*

Both socioeconomic risk and divorce were determined separately. Socioeconomic risk was assessed by the question “How often did your family have problems paying for basic necessities?” and was responded to on a 4-point scale with response options *never*, *sometimes*, *often*, and *I don't know*. Participants who endorsed the *I don't know* response were removed from analyses, resulting in a three-category variable. Participants reported if they had experienced parental divorce by selecting *yes* or *no* responses to the question “Have you ever experienced the divorce or separation of your parents.”

#### *Psychological well-being*

The Personal and Relationships Profile (PRP; Straus, Hamby, Boney-McCoy, & Sugarman, 1999) assessed individuals' current psychological symptoms related to various mood and personality disorders. The self-report questionnaire consists of 187 items, each assessed on a 4-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (4). The current study employed two subscales to examine borderline personality symptoms (BPD, 9 items) and depressive symptoms (DEP, 8 items). Both subscales have previously demonstrated sufficient reliability within a college student sample (BPD,  $\alpha = .76$ ; DEP,  $\alpha = .83$ ; Straus & Mouradian, 1999). These dimensions also showed good internal consistency in the current study (BPD,  $\alpha = .80$ ; DEP,  $\alpha = .86$ ).

#### *Sociodemographic characteristics*

All participants completed a standard demographics questionnaire. From this questionnaire, the following were tested for inclusion as covariates in the current study: (1) sex; (2) age; (3) current living arrangements (e.g., with or without parents).

## **Results**

### ***Exploratory factor analysis***

Two EFAs were conducted for each of the 8-item MFCC scales with Varimax rotation using data from Sample One. Prior to conducting the analyses, correlations between items for each of the scales confirmed factorability ( $r$ 's  $> .30$ ), and Kaiser-Meyer-Olkin (KMO) values (.80 and .82, respectively) indicated sampling adequacy (Tabachnick & Fidell, 2007). Based on examination of Eigenvalues and scree plots, both scales were best fit with two factor solutions; initially, with all eight items included in the EFA, the mother factors accounted for 62.64% of variance, while the father factors accounted for 69.32% of variance. These results are shown below in Table 1.

Table 1 shows that both scales demonstrated very similar factor structures, such that they were each comprised of a *burden* factor (characterized by items depicting a need to care for mother or father perceived as overwhelming by the individual) and an *autonomy* factor (characterized by items indicating that the individual is capable of putting their own

Table 1. Exploratory factor analysis results for caregiving-mother and caregiving-father scales.

Item	Mother burden	Mother autonomy	Father burden	Father autonomy
I frequently get too wrapped up in my mother's/father's problems and needs.	<b>.94</b>	-.03	<b>.94</b>	-.01
I tend to take on my mother's/father's problems and then feel burdened by them.	<b>.91</b>	-.03	<b>.93</b>	.03
I create problems by taking on my mother's/father's troubles as if they were my own.	<b>.89</b>	-.03	<b>.91</b>	.02
I tend to get overinvolved in my mother's/father's problems and difficulties.	<b>.80</b>	.01	<b>.85</b>	.08
When it's important, I take care of my own needs before I try to take care of my mother's/father's.	-.05	<b>.82</b>	-.02	<b>.86</b>
When necessary, I can say no to my mother's/father's requests for help without feeling guilty.	-.05	<b>.80</b>	-.05	<b>.84</b>
I can easily keep myself from becoming overly concerned about my mother.	.03	<b>.70</b>	.04	<b>.77</b>
Eigenvalues	3.15	1.79	3.32	2.04
% of variance	45.00	25.52	47.37	29.20
$\alpha$	.91	.66	.93	.77

Note: Factor loadings in bold indicate those items retained for each particular factor.

needs ahead of those of their mother or father; Table 1 reveals robust factor loadings and Cronbach's alphas associated with each factor). Reliability analyses revealed that the items "I help my mother without becoming over-involved in her problems" and "I help my father without becoming over-involved in his problems" decreased the internal consistencies of the mother and father autonomy subscales (removal of these items increased Cronbach's alpha from .60 to .66 and from .72 to .77, respectively), thus the items were both removed. The 7-item factor analysis of the mother and father scales yielded the same two factors, accounting for 70.52% and 76.57% of variance, respectively.

### Confirmatory factor analysis

To cross validate the factor structure established in Sample One, two CFAs were conducted using data from Sample Two, and these results are shown in Table 2. Several indices were examined to determine the goodness of fit of the model (see Hu & Bentler, 1999). Based on these specifications, the two-factor model showed excellent fit with the data for both mother,  $\chi^2(14) = 89.42, p < .001$ ; CFI = .99; SRMR = .07; RMSEA = .05, and father,  $\chi^2(14) = 48.37, p < .001$ ; CFI = .99; SRMR = .04; RMSEA = .03. Standardized factor loadings listed in Table 2 reveal a pattern highly similar to the results observed in the first sample, yielding strong support for the two-factor structure.

### Validity analyses

#### Covariates

All validity analyses were conducted using the data from Sample Two. Prior to completing these analyses, age, sex, and current living arrangements were assessed as possible covariates. Correlation coefficients between age and each of the mother and father factors were all either non-significant ( $r$ 's between  $-.04$  and  $-.006$ ,  $p$ 's between .08 and .78), or were of extremely small effect size ( $R^2$  between .0025 and .0049). Independent samples

Table 2. Confirmatory factor analysis standardized factor loadings for caregiving-mother and caregiving-father scores.

Item	Mother burden	Mother autonomy	Father burden	Father autonomy
I frequently get too wrapped up in my mother's/father's problems and needs.	.94		.93	
I tend to take on my mother's/father's problems and then feel burdened by them.	.86		.90	
I create problems by taking on my mother's/father's troubles as if they were my own.	.83		.85	
I tend to get overinvolved in my mother's/father's problems and difficulties.	.70		.79	
When it's important, I take care of my own needs before I try to take care of my mother's/father's.		.81		.85
When necessary, I can say no to my mother's/father's requests for help without feeling guilty.		.61		.66
I can easily keep myself from becoming overly concerned about my mother.		.48		.54
<i>a</i>	.90	.66	.92	.71

*t*-tests were calculated comparing each of the subscales and both sex and current living arrangements. Results showed that males had slightly higher scores only for father burden ( $t(2194) = 2.04, p < .05$ ), and that individuals who lived with their parents had reported greater mother burden scores ( $t(2193) = -2.19, p < .05$ ). However, the effect sizes for these two significant findings were extremely small (partial  $\eta^2 = .002$  for both analyses); no other results were significant ( $t$ 's between  $-.99$  and  $1.70$ ,  $p$ 's between  $.08$  and  $.79$ ). As such, no covariates were included in the subsequent analyses.

### Convergent validity

*Quality of parent-child relationships.* Pearson product-moment correlations were calculated between mother and father burden and autonomy scales and subscales of the PBI and AUAQ. These results are shown below in Table 3.

Table 3. Pearson product-moment correlations between caregiving-mother/-father factors and quality of parent-child relationships, borderline personality disorder, and depressive symptoms.

	Mother burden	Mother autonomy	Father burden	Father autonomy
Mother care <sup>a</sup>	-.14***	-.13***	-.22***	-.01
Mother control <sup>a</sup>	.23***	-.01	.19***	-.05*
Father care <sup>a</sup>	-.23***	-.02	-.05*	-.16***
Father control <sup>a</sup>	.26***	-.06**	.21***	-.03
Failed protection <sup>b</sup>	.11***	.07**	.13***	.04
Anger/dysregulation <sup>b</sup>	.16***	.06**	.20***	.03
Fear of abandonment <sup>b</sup>	.15***	-.02	.17***	-.04
Depressive symptoms <sup>c</sup>	.22***	-.01	.20***	.03
Borderline personality <sup>c</sup>	.24***	.01	.23***	.04

Note: <sup>a</sup>Measured by the Parental Bonding Instrument (Parker et al., 1979). <sup>b</sup>Measured by the Adolescent Unresolved Attachment Questionnaire (West et al., 2000). <sup>c</sup>Measured by the Personal and Relationships Profile (Straus et al., 1999).

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

Table 3 shows that less PBI-care and more PBI-control was linked to feeling burdened by caregiving for both mothers and fathers. For the AUAQ subscales, feeling overwhelmed by current caregiving toward mother and father was linked with reports of childhoods characterized by failed protection, dysregulation/anger, and fear of abandonment.

*Family risk.* A series of independent samples *t*-tests were conducted to determine the association between the established factors and having experienced physical or verbal abuse by parents, and having witnessed physical violence between parents, as well as having experienced socioeconomic risk (e.g., low SES) during childhood, or having parents who were divorced (full results are listed in Table 4).

Given the large number of analyses conducted, a Bonferroni correction was used to protect against family-wise error; significance for all *t*-tests were compared to a critical value of  $.05/20 = .003$ . Individuals who reported experiencing physical or verbal abuse, were at SES risk, or witnessed violence between parents tended to feel more burdened by caregiving responsibilities for both mothers and fathers. Feeling burdened by caring for mothers was also elevated for individuals from divorced families, and individuals who reported verbal abuse and divorce also felt more able to remain autonomous from caring for fathers.

Table 4. *T*-test results for differences in caregiving-mother/-father factors based on family risk characteristics.

	Yes <sup>a</sup>	No <sup>a</sup>	<i>t</i>	<i>df</i>	<i>p</i> <sup>b</sup>
<b>Physical abuse</b>					
Mother burden	10.10	8.81	-4.96	714.46	.000
Father burden	8.42	7.62	-3.21	691.01	.001
Mother autonomy	9.75	9.68	-.36	2150.00	.72
Father autonomy	9.73	9.95	1.07	719.82	.29
<b>Verbal abuse</b>					
Mother burden	9.69	8.13	-7.61	1868.06	.000
Father burden	8.22	7.12	-5.80	1941.11	.000
Mother autonomy	9.76	9.60	-1.05	2159.00	.30
Father autonomy	10.10	9.57	-3.14	1807.42	.002
<b>Witness violence</b>					
Mother burden	10.90	8.81	-5.93	340.68	.000
Father burden	9.05	7.61	-4.47	344.39	.000
Mother autonomy	9.67	9.71	.15	356.54	.88
Father autonomy	9.92	9.90	-.10	353.69	.92
<b>SES risk</b>					
Mother burden	10.70	8.64	-7.50	638.98	.000
Father burden	9.09	7.46	-6.00	604.37	.000
Mother autonomy	9.45	9.81	1.93	2060.00	.06
Father autonomy	9.87	9.93	.30	2060.00	.77
<b>Divorce</b>					
Mother burden	10.07	8.80	4.84	766.65	.000
Father burden	8.14	7.66	1.92	731.35	.06
Mother autonomy	9.90	9.63	1.48	2018.00	.14
Father autonomy	9.69	9.69	4.58	740.77	.000

Notes: All family risk characteristics were measured by dichotomous sociodemographic questions.

<sup>a</sup>Means for each response group are listed.

<sup>b</sup>Obtained *p*-values were compared to a Bonferroni corrected critical value of  $.05/20 = .003$ .

*Psychological well-being.* Pearson product-moment correlation coefficients were used to determine the association between the obtained factors and PRP subscales measuring borderline personality disorder symptoms and depressive symptoms (see Table 3). Results showed that feeling burdened or overwhelmed by the need to care for mother and/or father was linked to more self-reported borderline and depressive symptoms, while no such association was evident for remaining autonomous from caring for parents.

## Discussion

The current study aimed at establishing the psychometric properties of an adapted measure of the Caregiving Questionnaire (Kunce & Shaver, 1994) that efficiently assesses current caregiving behaviors of young adults toward their parents. Two identical factor structures emerged from an EFA for each parent, namely, *burden* and *autonomy*. Scores on the burden factor reflect the degree to which individuals feel overwhelmed by current needs to care for their mother or father, while scores on the autonomy factor show how well an individual feels he or she can currently put their own needs ahead of the needs of their parents.

A CFA demonstrated the stability of the factor structure within a second sample, yielding identical factor structures for both mother and father scales as identified in the first sample. Thus, it can be assumed that these factors are not idiosyncratic to a particular sample but reflect a true relational style adopted by young adults. Although it was not hypothesized that the EFA would reveal two factors, they were both stable and robust. Moreover, the derived caregiving factors fit within the context of attachment theory (Bowlby, 1969/1982) as existing young adult measures of parent–child attachment focus more on the emotional reactions and cognitive attributions than the behavioral features *per se*. Thus, the burden factor provides information concerning young adults' overwhelming emotional reactions to caregiving for their parents, whereas the autonomy factor focuses on young adult's perception of their independence from the needs of their parents. These two separate factors are consistent with Bowlby's (1969/1982, 1980) speculation that role inversion involves feeling burdened and pressured to provide care for a parent, is psychologically harmful to a child, and it can be further hypothesized that the ability to maintain proper boundaries between parent and child would lead to more positive emotional outcomes in the child.

The emergence of two factors on the MFCC scales as opposed to the single factor for compulsive caregiving in Kunce and Shaver's (1994) original study also suggests that caregiving to parents in young adulthood may involve different facets than within romantic relationships. On the one hand, it can be conjectured that since young adults are at a transition point in developing their own separate identity from their parents and are striving to become independent, having a sense of autonomy regarding parents' personal problems may play a central role in emotional development. As such, the autonomy factor may be a reflection of having accomplished this task. Such a strong need to emotionally separate may be less apparent in romantic relationships, thus explaining the differing factor structures between the original CQ and the MFCC in the present study. Indeed, attachment theory holds that a fundamental difference between parent–child attachment and romantic attachment is the presence of reciprocal caregiving in romantic relationships, in which partners take turns to support each other (Ainsworth, 1982; Shaver & Hazen, 1988); the inversion of caregiving roles in parent–child relationships is deemed psychologically harmful as the parent should be the only caregiver in the relationship (Bowlby, 1969/1982). The discovery of two separate factors for caregiving toward parents

suggests that this relational disturbance may hold until well into adulthood, which supports Bowlby's (1980) expectation that compulsive caregiving patterns may continue beyond childhood.

### ***Convergent validity of the burden factor***

#### *Quality of parent–child relationships*

As was expected, feeling burdened in caregiving for parents was associated with all parent–child relationship variables for both parents. Specifically, young adults who felt burdened toward caregiving for parents were also more likely to report negative childhood relationships with parents, characterized by less parental care and more parental control. These individuals also reported feeling angry or unprotected and fearing abandonment by parents. Such invalidating family environments may contribute to the development of a controlling/caregiving strategy, or may maintain it over time. These findings are consistent with prior research and thinking (e.g., Bureau et al., 2009a; Easterbrooks et al., 2012), and it can be proposed that young adults may use this strategy to keep the parent who was invalidating in the past engaged in their relationship by caring for them. Moreover, the results complement Bowlby's (1980) theory that compulsive caregiving originates in families where parents provided intermittent or inadequate caregiving, and where there was pressure on the child to provide care to parents.

#### *Family risk*

It was hypothesized that being over-involved in parents' personal problems would be related to a history of family risk, as indicated by self-reported physical or verbal abuse, witnessing violence between parents, high socioeconomic risk, and parental divorce. This speculation was generally supported as it was found that feeling burdened by caregiving to either parent was associated with a history of abuse and socioeconomic risk, while parental divorce was only related to feeling burdened by caregiving toward mothers. These findings are in line with prior findings. For instance, Mayseless, Bartholomew, Henderson and Trinke (2004) found a similar association between parental divorce and retrospective accounts of controlling/caregiving behavior within a sample of adult men and women. The parentification literature has drawn similar results in which parental divorce was related to higher levels of past and current parentified behaviors in adolescence and young adulthood (Jurkovic, Thirkield, & Morrell, 2001). The fact that parental divorce was only related to feeling burdened from caregiving to mothers may be either sample specific or may be attributed to the general trend of children of divorce more likely to be living with their mothers than their fathers (Department of Justice, 2004), and thus not having the possibility to provide regular care to their fathers. Moreover, "parentified" or caregiving behaviors in youth are more commonly associated with mothers than fathers (Peris, Goeke-Morey, Cummings, & Emery, 2009).

The findings of the present study also relate to the literature on abuse and caregiving behaviors toward parents. Fitzgerald and colleagues (2008) found a link between having witnessed domestic violence and childhood parentification in a sample of college-aged women. Also, physical abuse by a parent has been related to a narrative account of controlling attachment in preschool children (Macfie et al., 1999), such that children may care for their parents in order to protect themselves from abuse. Interestingly, findings from the current study demonstrate that this strategy and these effects continue beyond

preschool age and into young adulthood, when contact with the parent is arguably decreased.

### *Psychological well-being*

With regards to mothers and fathers, feeling burdened when attending to parents' personal problems was related to currently reporting more depressive and borderline personality symptoms. These findings are in line both with Bowlby's (1969/1982, 1980) theory that role inversion is psychologically harmful and can lead to emotional issues later in life, and with findings linking controlling/caregiving strategies in young adolescents with borderline features and self-harming behaviors (Lyons-Ruth et al., 2009).

### ***Convergent validity of the autonomy factor***

#### *Quality of parent-child relationships*

Feeling autonomous from mothers' personal problems was associated with having experienced less maternal care and paternal control, and feeling unprotected and angry toward parents during childhood. It is possible that having felt unprotected by or angry toward parents during childhood may lead young adults to be better able to separate from their mothers' problems, rather than to engage actively in burdensome caregiving. In contrast, feeling autonomous from fathers' problems was only associated with recounting less paternal care and less maternal control. For both parents, these results suggest that young adults are more likely to perceive themselves as autonomous toward their parent's personal problems when they view this specific parent as having been uncaring to them in childhood, and when they experienced the other parent as having been less controlling. Stemming from the results, it is hypothesized that young adults may feel more autonomous toward either parent if the family context involves lack of warmth and controlling over-involvement by their parents.

#### *Family risk*

Within this sample, the ability to separate one's own needs from the personal problems of mothers was not related to family risk (e.g., parental divorce, various forms of abuse); however, feeling autonomous regarding current caregiving to fathers was related to more reports of parental divorce and verbal abuse by a parent. Although no hypothesis was speculated for this factor, the results are consistent with our current understanding of divorce in this society. In Canada between 1998 and 1999, approximately 63% of children of parental separation lived with only their mother, 7% lived with their father, and 12% were in shared custody, whereas the living arrangements of the remaining children were unclassifiable or the parents resumed living together (Department of Justice, 2004). Therefore, it can be assumed that young adults who were children of divorce or separation would be less likely to engage in caregiving behaviors toward their fathers, as they would likely have seen them less frequently and would have had fewer opportunities to become over-involved within that relationship, and thus be better able to assert their own needs within the relationship with their fathers. This association was not found with mothers, which is plausible as it is assumed that young adults from divorced families would be more frequently faced with the daily problems of their mothers, and may consequently experience more difficulty in separating themselves from their mother's personal issues.



This finding complements the association between burden and divorce with mothers only. Regarding verbal abuse findings, young adults might be less likely to take on their fathers' problems when parents verbally demeaned in childhood. However, it should be cautioned that the counter-intuitive findings that emerge from the autonomy factor with regards to family risk may be specific to the current sample, and in other samples feeling autonomous regarding caregiving to parents may be related to other forms of abuse.

### *Psychological well-being*

Autonomous caregiving toward either parent was not associated with any psychological well-being outcome variables in this sample. The lack of association between features of borderline personality disorder and depressive symptoms with regards to autonomy toward both parents is coherent with the idea that being able to be assertive and to set boundaries would lead to psychological well-being. Similarly, one would expect that individuals with borderline personality symptoms would not be associated with a tendency to put their own needs first, as evidenced by higher scores on the autonomy factor, given that many individuals with borderline pathology become over-involved in their relationship with others, often being required to care for their family members (see Agrawal, Gunderson, Holmes, & Lyons-Ruth, 2004 for a review).

### **Limitations**

Despite the important findings of this study, it is not without limitations. First, the sample consisted of undergraduate students from a first-year psychology course, and results may not be representative of the general population. Therefore, it will be important to validate this scale with a community sample of the same age range to determine if similar factor structures emerge. Further, the study did not specifically address the construct validity of the MFCC. As there is currently no measure assessing compulsive caregiving toward parents in young adulthood, it would be useful for future research to examine the MFCC's relation to self-report measures assessing a similar concept (e.g., parentification measures), in order to further establish the strength of the questionnaires. It would also be valuable to investigate the predictive validity of the scales by determining if caregiving toward parents in young adulthood leads to concurrent interpersonal problems with parents, deficiencies in romantic relationships, and lower psychological well-being later in life.

### **Future research and clinical implications**

Although promising, the results from this study are preliminary and would be considered more robust following replication. Further, the study was cross-sectional and it would be important in future research to conduct a longitudinal study to better determine the direction of the obtained associations. Following additional validation, the MFCC scales will be beneficial to researchers wishing to investigate the trajectory of caregiving individuals using a short and convenient instrument that focuses on the current relationship between parents and young adults. Moreover, findings from this study highlight the negative outcomes experienced by young adults who feel burdened while caregiving for their parents, possibly further elucidating the contradictory results from existing research regarding controlling/caregiving attachment behavior. The precise outcomes of perceiving autonomy from parental distress were less clear, and future research should further explore

the mediating variables that may aid in explaining the obtained associations with autonomy. Clinically, this measure will enable brief screening of young adult–parent relational issues related to compulsive caregiving, which may be an important dynamic upon which to focus therapeutically. The use of a separate questionnaire for both parents allows the clinician to isolate within which parental relationship these emotional reactions and cognitions related to caregiving behaviors occur. As young adulthood is a developmental period marked with the separation of parental bonds and identity formation, information gathered from this scale can assist clinicians to determine how an individual is adjusting during this transition.

## References

- Agrawal, H. R., Gunderson, J., Holmes, B. M., & Lyons-Ruth, K. (2004). Attachment studies with borderline patients: A review. *Harvard Review of Psychiatry, 12*, 94–104. doi:10.1080/10673220490447218
- Ainsworth, M. D. S. (1982). Attachment: Retrospect and prospect. In C. M. Parkes & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 3–30). New York, NY: Basic Books.
- Ainsworth, M. D. S. (1989). Attachments beyond infancy. *American Psychologist, 44*, 709–716. doi:10.1037/0003-066X.44.4.709
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment*. New York, NY: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation*. New York, NY: Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York, NY: Basic Books.
- Bureau, J. F., Easterbrooks, A., & Lyons-Ruth, K. (2009a). Attachment disorganization and controlling behaviour in middle childhood: Maternal and child precursors and correlates. *Attachment & Human Development, 11*, 265–284. doi:10.1080/14616730902814788
- Bureau, J. F., Easterbrooks, A., & Lyons-Ruth, K. (2009b, April). *The Association between middle childhood controlling and disorganized attachment and family correlates in young adulthood*. Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, CO.
- Carlson, E. A. (1998). A prospective longitudinal study of attachment disorganization/disorientation. *Child Development, 69*, 1107–1128. doi:10.2307/1132365
- Cicchetti, D., & Barnett, D. (1991). Attachment organization in maltreated preschoolers. *Development and Psychopathology, 3*, 397–411. doi:10.1017/S0954579400007598
- Department of Justice Canada. (2004). *When parents separate: Further findings from the National Longitudinal Survey of Children and Youth* (Publication No. 2004-FCY-6E). Retrieved from [http://www.justice.gc.ca/eng/rp-pr/fl-lf/divorce/2004\\_6/pdf/2004\\_6.pdf](http://www.justice.gc.ca/eng/rp-pr/fl-lf/divorce/2004_6/pdf/2004_6.pdf)
- Easterbrooks, M. A., Bureau, J. F., & Lyons-Ruth, K. (2012). Developmental correlates and predictors of emotional availability in mother–child interaction: A longitudinal study from infancy to middle childhood. *Development and Psychopathology, 24*, 65–78. doi:10.1017/S0954579411000666
- Feeney, B., & Collins, N. (2001). Predictors of caregiving in adult intimate relationships: An attachment theoretical perspective. *Journal of Personality and Social Psychology, 80*, 972–994. doi:10.1037//0022-3514.80.6.972
- Feeney, J. (1996). Attachment, caregiving, and marital satisfaction. *Personal Relationships, 3*, 401–416. doi:10.1111/j.1475-6811.1996.tb00124.x
- Feeney, J. A., & Hohaus, L. (2001). Attachment and spousal caregiving. *Personal Relationships, 8*, 21–39. doi:10.1111/j.1475-6811.2001.tb00026.x
- Fitzgerald, M., Schneider, R., Salstrom, S., Zinzow, H., Jackson, J., & Fossel, R. (2008). Child sexual abuse, early family risk, and childhood parentification: Pathways to current psychosocial adjustment. *Journal of Family Psychology, 22*, 320–324. doi:10.1037/0893-3200.22.2.320
- George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal, 17*, 198–216. doi:10.1002/(SICI)10970355(199623)17:3:198::AID-IMHJ23.0.CO;2-L

- Holmes, B. M., & Robinson, K. (2009). Adult attachment and romantic partner preference: A review. *Journal of Social and Personal Relationships*, 26, 833–852. doi:10.1177/0265407509345653
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55. doi:10.1080/10705519909540118
- Julal, F., & Carnelley, K. (2012). Attachment, perceptions of care and caregiving to romantic partners and friends. *European Journal of Social Psychology*, 42, 832–843. doi:10.1002/ejsp.1914
- Jurkovic, G., Thirkield, A., & Morrell, R. (2001). Parentification of adult children of divorce: A multidimensional analysis. *Journal of Youth and Adolescence*, 30, 245–257. doi:10.1023/A:1010349925974
- Kunce, L. J., & Shaver, P. R. (1994). An attachment-theoretical approach to caregiving in romantic relationships. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 5, pp. 205–237). London: Kingsley.
- Lopez, F., & Gover, M. (1993). Self-report measures of parent-adolescent attachment and separation-individuation: A selected review. *Journal of Counseling & Development*, 71, 560–569. doi:10.1002/j.1556-6676.1993.tb02243.x
- Lyons-Ruth, K., Bronfman, E., & Parsons, E. (1999). Maternal frightened, frightening, or atypical behaviour and disorganized infant attachment patterns. *Monographs of the Society for Research in Child Development*, 64, 67–96. doi:10.1111/1540-5834.00034
- Lyons-Ruth, K., Bureau, J. F., Henninghausen, K. H., Holmes, B. M., & Easterbrooks, A. (2009, April). *Parental helplessness and adolescent role-reversal as correlates of borderline features and self-injury*. Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, CO.
- Lyons-Ruth, K., Henninghausen, K. H., & Holmes, B. M. (2005). *Goal-corrected partnership in adolescence coding system*. (Unpublished document). Harvard Medical School, Cambridge Hospital, Department of Psychiatry, Cambridge, MA.
- Macfie, J., Toth, S., Rogosch, F., Robinson, J., Emde, R., & Cicchetti, D. (1999). Effect of maltreatment on preschoolers' narrative representations of responses to relieve distress and of role reversal. *Developmental Psychology*, 35, 460–465. doi:10.1037/0012-1649.35.2.460
- Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment and stable over a 1-month period. *Developmental Psychology*, 24, 415–426. doi:10.1037/0012-1649.24.3.415
- Main, M., & Hesse, E. (1990). Parent's unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening parental behaviour the linking mechanism? In M. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research and intervention* (pp. 161–184). Chicago, IL: University of Chicago Press.
- Main, M., & Solomon, E. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research and intervention* (pp. 121–160). Chicago, IL: University of Chicago Press.
- Maysseless, O., Bartholomew, K., Henderson, A., & Trinke, S. (2004). "I was more her mom than she was mine:" Role reversal in a community sample. *Family Relations*, 53, 78–86. doi:10.1111/j.1741-3729.2004.00011.x
- Millings, A., & Walsh, J. (2009). A dyadic exploration of attachment and caregiving in long term couples. *Personal Relationships*, 16, 437–453. doi:10.1111/j.14756811.2009.01232.x
- Moss, E., Bureau, J. F. St. Laurent, D., & Tarabulsy, G. (2011). Understanding disorganized attachment at preschool and school age: Examining divergent pathways of disorganized and controlling children. In J. Solomon & C. George (Eds.), *Attachment disorganization* (2nd ed.). New York, NY: Guilford.
- Moss, E., Cyr, C., & Dubois-Comtois, K. (2004). Attachment at early school age and developmental risk: Examining family contexts and behaviour problems of controlling-caregiving, controlling-punitive, and behaviourally disorganized children. *Developmental Psychology*, 40, 519–532. doi:10.1037/0012-1649.40.4.519
- O'Connor, E., Bureau, J. F., McCartney, K., & Lyons-Ruth, K. (2011). Risk and outcomes associated with disorganized/controlling patterns of attachment at age three years in the national

- institute of child health & human development study of early child care and youth development. *Infant Mental Health Journal*, 32, 450–472. doi:10.1002/imhj.20305
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1–10. doi:10.1111/j.2044-8341.1979.tb02487.x
- Peris, T., Goeke-Morey, M. C., Cummings, E. M., & Emery, R. (2009). Marital conflict and support seeking by parents in adolescence: Empirical support for the parentification construct. *Journal of Family Psychology*, 22, 633–642. doi:10.1037/a0012792
- Shaver, P. R., & Hazen, C. (1988). A biased overview of the study of love. *Journal of Social and Personal Relationships*, 5, 473–501. doi:10.1177/0265407588054005
- Solomon, J., George, C., & De Jong, A. (1995). Children classified as controlling at age six: Evidence of disorganized representational strategies and aggression at home and at school. *Development and Psychopathology*, 7, 447–463. doi:10.1017/S0954579400006623
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. (1999). *The personal and relationships profile*. Unpublished manuscript.
- Straus, M. A., & Mouradian, V. E.. (1999, November). *Preliminary psychometric data for the Personal and Relationships Profile (PRP): A multi-scale tool for clinical screening and research on partner violence*. Paper presented at the annual meeting of the American Society of Criminology, Toronto, ON.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). New York, NY: Pearson.
- Wartner, U. G., Grossman, K., Fremmer-Bombik, E., & Suess, G. (1994). Attachment patterns at age six in South Germany: Predictability from infancy and implications for preschool behaviour. *Child Development*, 65, 1014–1027. doi:10.2307/1131301
- West, M., Rose, S., Spreng, S., & Adam, K. (2000). The adolescent unresolved attachment questionnaire: The assessment of perceptions of parental abdication of caregiving behaviour. *The Journal of Genetic Psychology*, 161, 493–503. doi:10.1080/00221320009596727
- van IJzendoorn, M., Schuengel, C., & Bakermans-Kranenburg, M. (1999). Disorganized attachment in early childhood: Meta-analysis of precursors, concomitants, and sequelae. *Development and Psychopathology*, 11, 225–249. doi:10.1017/S0954579499002035