Impact of Childhood Parental Abuse and Neglect on Sleep Problems in Old Age

Cecilia Y. M. Poon and Bob G. Knight

Department of Psychology, Davis School of Gerontology, University of Southern California, Los Angeles.

Objectives. This study examined whether subjective sleep complaints in late adulthood were associated with childhood parental abuse and neglect and whether the association was mediated by current relationship strain and emotional distress.

Methods. Multiple regression analyses were performed on data from 877 older adults aged 60 years and above from the National Survey of Midlife Development in the United States. Adverse childhood experiences were retrospectively recalled at Time 1 (1995–1996). Sleep complaints, relationship strain, and emotional distress were assessed at Time 2 (2004–2006).

Results. Early parental emotional abuse was significantly associated with more sleep complaints in old age. Unsupportive interactions with family, friends, significant others, and emotional distress partially explained the association.

Discussion. Parental emotional abuse in childhood hindered the development of supportive social relationships later in life, which was associated with more emotional distress, and exerted a negative influence on subjective sleep quality among older adults. Future research should examine other underlying mechanisms that explain the contribution of human attachment to sleep across the lifespan.

Key Words: Attachment—Emotional abuse—Relationship strain—Sleep.

Research on the long-term consequences of adverse childhood experiences has illustrated the negative impact of childhood abuse and neglect on sleep in early and middle adulthood (Bader, Schafer, Schenkel, Nissen, & Schwander, 2007; Koskenvuo, Hublin, Partinen, Paunio, & Koskenvuo, 2010). Serious family conflicts, parental divorce, constant fear of a family member, and having a mentally ill or alcoholic family member were related to poorer sleep in childhood and midlife (Gregory, Caspi, Moffitt, & Poulton, 2006; Koskenvuo et al., 2010). Despite the prevalence of sleep difficulties among older adults (Ancoli-Israel, 2005), no study has investigated if childhood parental abuse and neglect contributed to subjective sleep complaints in late adulthood. The primary goal of the present study was to examine the longitudinal association between childhood parental abuse and neglect and subjective sleep complaints among older adults.

The association between childhood experiences and sleep may be explained by a cognitive–affective model of physiological arousal (Luecken, Rodriguez, & Appelhans, 2005). Attachment theory suggests that early parent–child interaction shapes one’s internal working model of the self and self–other interaction (Cassidy & Shaver, 1999). Abusive or neglectful parent–child relationships may reduce individuals’ confidence about their ability to deal with stress. One study showed that college students who experienced childhood emotional abuse were more likely to develop cognitive schemas of vulnerability to harm, shame, and self-sacrifice (Wright, Crawford, & Castillo, 2009). Maladaptive cognitive appraisal of the environment and hypervigilance to threat cues may ensue. Experimental studies on college students reporting abuse and poor family relationships also supported this cognitive–affective explanation. As sleep and hypervigilance are two incompatible physiological states (Buckley & Schatzberg, 2005), early parental abuse and neglect may exacerbate future sleep problems.

Poor childhood attachment may continue to influence sleep through poor adulthood attachment. Drawing upon the cumulative disadvantage perspective (Dannefer, 2003), poor parent–child relationships may foreshadow problems in future social relationships and compromise sleep. A qualitative review of the influence of early family experiences on well being concluded that hostile and cold family environments could hinder the development of emotion regulation skills and increase the likelihood of interpersonal problems (Repetti, Taylor, & Seeman, 2002). Whisman (2006) noted that childhood abuse was associated with marital disruption and lower marital satisfaction in a large, nationally representative sample. In two separate studies, unsupportive social relationships and attachment anxiety contributed to poorer sleep among married couples and older women (Carmichael & Reis, 2005; Friedman et al., 2005). The current study’s second aim was to examine whether current relationship strain accounted for the association between adverse parent–child relationships in

childhood and sleep problems in late adulthood and if this was mediated by emotional distress.

Although previous research has revealed a connection between childhood abuse and neglect and sleep problems in young adulthood and midlife, none has examined if this association prevails in old age, when sleep complaints are increasingly prevalent. Further, investigators have not considered the role of current relationship strain. To address these questions, we hypothesized that childhood parental physical and emotional abuse and neglect would contribute to more sleep problems in late life. Second, we hypothesized that current relationship strain would mediate the association. Finally, we examined whether this was partially explained by emotional distress.

**METHODS**

**Sample**

Participants were selected from the random digit-dialing sample of the National Survey of Midlife Development in the United States (MIDUS). A detailed description of the data set and data collection procedures can be obtained at the MIDUS Web site (http://midmac.med.harvard.edu/research.html). The MIDUS included 3,487 noninstitutionalized, English-speaking adults living in the United States at Time 1 (1995–1996). Follow-up data collection took place about nine years later (2004–2006). The present sample included 877 older adults aged 60 and above at Time 2. Sample selection was driven by our research focus on the lasting influence of early attachment on sleep in late adulthood.

**Outcome Variable**

**Sleep complaints.**—At Time 2, four items measured subjective sleep complaints. Participants were asked how often they “have trouble falling asleep,” “wake up during the night and have difficulty going back to sleep,” “wake up too early in the morning and [are] unable to get back to sleep,” and “feel unrested during the day, no matter how many hours of sleep [they] had” in the past 30 days. Items were rated on a 5-point scale: 1 (never), 2 (rarely), 3 (sometimes), 4 (often), and 5 (almost always). The four items were summed, with higher scores indicating more sleep difficulties. Internal consistency of this measure was good ($\alpha = .81$).

**Independent Variables**

**Parental abuse.**—At Time 1, physical abuse was assessed by asking participants how often their mother and father “pushed, grabbed, or shoved [them]; slapped [them]; threw something at [them];” “kicked, bit, or hit with a fist; hit or tried to hit [them] with something; beat [them] up; choked; burned or scalced [them]” during childhood. Emotional abuse was assessed by asking participants how often their mother and father “insulted or swore at [them]; sulked or refused to talk to [them]; stomped out of the room; did or said something to spite [them]; threatened to hit [them]; smashed or kicked something in anger.” Responses were rated on a 4-point scale (1 = often, 2 = sometimes, 3 = rarely, 4 = never).

We constructed two variables to indicate the frequency of parental physical and emotional abuse, respectively. Items were reverse coded. Higher scores would indicate more frequent occurrence of abuse. For physical abuse, the highest frequency endorsed for each physical aggression item for either parent was used to indicate the overall frequency of physical abuse. For emotional abuse, the highest frequency endorsed for either parent indicated the overall frequency of parental emotional abuse. For example, if a participant reported emotional abuse “often” from his or her mother and “never” from his or her father, the frequency of emotional abuse would be recoded as “often.” Averaging maternal and paternal abuse could have resulted in an underestimation of the frequency of abuse.

**Parental neglect.**—At Time 1, participants recalled the amount of affection, care, understanding, support, time, and effort given by their parents during childhood by responding to 12 items on a 4-point scale from 1 (a lot) to 4 (not at all). Six items were averaged and measured maternal and paternal care, respectively. Reliability estimates of maternal and paternal care were good ($\alpha = .90$ and .91). The two scales were summed to represent an overall level of parental care in childhood, with higher scores suggesting parental neglect.

**Mediating Variables**

**Current relationship strain.**—At Time 2, negative interactions with family and friends were each measured with four items. Negative interaction with spouse or partner was measured with six items. A sample item included: “How often do members of your family/friends/spouse/partner make too many demands on you?” Each item was rated on a 4-point scale from 1 (never) to 4 (often). Responses were averaged for each scale. Higher scores indicated more relationship strain. Internal consistency of the three measures were good ($\alpha = .76$, .79, and .86). The sum of the three scales was used to indicate total relationship strain.

**Emotional distress.**—At Time 2, emotional distress in the past 30 days was assessed by averaging five items that were rated on a 5-point scale from 1 (all the time) to 5 (none of the time). Sample items included feeling “nervous,” “hopeless,” and “restless and fidgety.” These
Table 1. Main and Mediating Effects of Early Parental Abuse and Neglect on Sleep Complaints in Old Age (Models 1, 4, and 5)

<table>
<thead>
<tr>
<th></th>
<th>Main effect (Model 1)</th>
<th>Mediation effect (Model 4)</th>
<th>Mediation effect (Model 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>B</td>
<td>β</td>
</tr>
<tr>
<td>Age</td>
<td>.07</td>
<td>0.04</td>
<td>.09</td>
</tr>
<tr>
<td>Sex</td>
<td>.16***</td>
<td>1.12</td>
<td>.14***</td>
</tr>
<tr>
<td>Race</td>
<td>.08*</td>
<td>1.30</td>
<td>.09</td>
</tr>
<tr>
<td>Education</td>
<td>−.04</td>
<td>−.46</td>
<td>−.04</td>
</tr>
<tr>
<td>Marital status</td>
<td>.09*</td>
<td>0.71</td>
<td>.08</td>
</tr>
<tr>
<td>Self-rated health</td>
<td>−.29***</td>
<td>−1.07</td>
<td>−.27***</td>
</tr>
<tr>
<td>Parental death before age 17</td>
<td>−.01</td>
<td>−0.08</td>
<td>.00</td>
</tr>
<tr>
<td>Parental divorce before age 17</td>
<td>−.06</td>
<td>−0.85</td>
<td>−.06</td>
</tr>
<tr>
<td>Parental physical abuse</td>
<td>−.04</td>
<td>−0.17</td>
<td>−.04</td>
</tr>
<tr>
<td>Parental emotional abuse</td>
<td>.11*</td>
<td>0.42</td>
<td>.07</td>
</tr>
<tr>
<td>Parental neglect</td>
<td>.07</td>
<td>0.21</td>
<td>.09</td>
</tr>
<tr>
<td>Relationship strain</td>
<td>.21***</td>
<td>1.77</td>
<td>.12**</td>
</tr>
<tr>
<td>Emotional distress</td>
<td></td>
<td></td>
<td>.983***</td>
</tr>
</tbody>
</table>

*R < .05; **R < .01; ***R < .001.

items were reverse coded and averaged, with higher scores indicating more emotional distress. Internal consistency of the scale was good (α = .89).

Covariates

Demographic variables.—Age (in years), sex (0 = men, 1 = women), race (0 = non-White, 1 = White), educational attainment (0 = less than high school, 1 = high school and above), marital status (0 = not married, 1 = married), and self-rated health (1 = poor to 5 = excellent) were included in all analyses as covariates.

Parental death or divorce or separation.—Two dichotomous variables (0 = no, 1 = yes) indicated whether respondent’s parents died or divorced or separated before age 17.

Data Analysis

Ordinary least-squares regression analyses were performed to examine main effects of parental abuse and neglect on sleep (Model 1) and relationship strain (Model 2) and the main effect of relationship strain on emotional distress (Model 3). All independent variables and covariates were entered at the same time. Mediating effects of relationship strain (Model 4) and emotional distress (Model 5) were examined by adding these variables to Model 1.

Results

Fifty-two percent of the sample were women, with an average age of 69.25 years (SD = 6.54) at Time 2. Ninety-two percent were non-Hispanic White. Eighty-seven percent completed high school or more. Sixty-four percent were married or cohabitating. Eleven percent experienced parental death; another 11% experienced parental divorce or separation. The average score of the sleep measure was 9.82 (SD = 3.63). Table 1 presents the main and mediating effects of parental abuse and neglect on sleep complaints. Partially supporting Hypothesis 1, parental emotional abuse, but not physical abuse or emotional neglect, was significantly associated with sleep complaints in late adulthood.

Supporting Hypothesis 2, current relationship strain was associated with parental emotional abuse (β = .22, p < .001; Model 2) and accounted for 36% of the association between parental emotional abuse and sleep problems in late adulthood (β dropped from .11 to .07; Models 1 and 4). The Sobel test revealed that the mediating effect was significantly different from zero (z = 3.72, p = .001). Emotional distress was associated with relationship strain (β = .31, p < .001; Model 3), accounting for 57% of the impact of relationship strain on sleep (β dropped from .21 to .12; Models 4 and 5). The mediating effect was significantly different from zero (z = 5.67, p < .001). Entering the independent variables and covariates into separate models did not result in significant changes.

Discussion

This study extended previous research on the impact of childhood family experiences on sleep in young and middle adulthood (Bader et al., 2007; Koskenvuo et al., 2010) by demonstrating a significant association between childhood parental emotional abuse and poorer sleep quality among older adults. This study was also the first to take into account the mediating role of current relationship strain. Consistent with previous research, it was not early parental unavailability per se but poor relationships that heightened stress reactivity (Luecken et al., 2005). This
study highlighted the unique contribution of parental emotional abuse. Indeed, the attachment theory emphasized the emotional bonding between parent and child. Emotional insecurity in childhood could compromise emotion regulation skills, thus limiting the development of supportive social relationships (Repetti et al., 2002). Overall, our findings lent support to the concept of cumulative disadvantage (Dannefer, 2003), such that negative early attachment relationships continued to exert an influence on well being decades later, through an accumulation of negative social experiences across the lifespan.

Several limitations warrant attention when interpreting these findings. First, childhood adversity may be subject to recall bias. However, research has shown that recall of childhood experiences tended to be reliable and accurate (Hardt & Rudder, 2004; Yancura & Aldwin, 2009). Second, sleep disturbance was measured by summing four items that each assessed a different type of sleep problem. To increase specificity, future studies should employ measures that examine specific sleep domains with multiple items. Third, we could not rule out the influence of other variables, namely chronic medical conditions and trait anxiety. To explain a greater portion of variance of sleep problems longitudinally, future research may consider the influence of other psychosocial mediators, such as the personal meaning of relationship strain. Replication of these findings in a more diverse sample of older adults will also enhance generalizability.

The overall pattern of results supports a lifespan developmental perspective of risk and protective factors of sleep problems, specifically the importance of secure attachment across the lifespan. Given the prevalence of sleep complaints in late adulthood and the impact of sleep on health (Ancoli-Israel, 2005), it is imperative that researchers and clinicians be mindful of psychosocial factors at different life stages that may elicit poor sleep in late adulthood. Interventions that can reduce current relationship strain may also ameliorate the negative consequences of early parental emotional abuse on sleep.

ACKNOWLEDGMENTS
The MIDUS data set was obtained from the Inter-University Consortium for Political and Social Research database (http://www.icpsr.umich.edu/). An earlier version of the manuscript was presented at the 2009 meeting of the American Psychological Association in Toronto, Canada.

CORRESPONDENCE
Correspondence should be addressed to Cecilia Y. M. Poon, M.A. Andrus Gerontology Center, University of Southern California, 3715 South McClintock Avenue, Los Angeles, CA 90089. E-mail: ceciliyp@usc.edu.

REFERENCES