

# Psychosocial Resources and Associations Between Childhood Physical Abuse and Adult Well-being

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**Childhood physical abuse is often associated with detrimental physical and psychological consequences in adulthood. Yet, some adults appear to overcome effects of very severe parental physical abuse in childhood. This study considered whether psychosocial resources (i.e., emotional and instrumental support, personal control) explain variability in well-being for adults who experienced childhood physical abuse by their parents. Participants included 2,711 adults aged 25–74 years from the Midlife in the United States (MIDUS I) study. Moderation models revealed that high levels of personal control were associated with better physical and psychological functioning among adults who were physically abused as children. Thus, personal control may be a key factor to health and well-being and thus resilient functioning following childhood abuse.**

**Key Words:** Adulthood well-being—Childhood physical abuse—Psychosocial resources.

CHILDHOOD abuse can dismantle relationships and well-being over the life course. Experience of parental abuse during childhood has detrimental implications not only for childhood health and well-being but also for health and well-being in adulthood (e.g., Corliss, Cochran, & Mays, 2002; Futa, Nash, Hansen, & Garbin, 2003; Pepin & Banyard, 2006). Despite these repercussions of childhood abuse, not all victims end up psychologically and physically unhealthy. In fact, resiliency from the effects of abuse may be true of some victims (Bonanno, 2004; Bonanno, Papa, & O'Neill, 2002; Masten, 2001). Few studies, however, have examined resilience following child abuse.

Many factors may play a role in resilient functioning following childhood abuse, including psychosocial resources (e.g., personal control, support; Cromer & Sachs-Ericsson, 2006; Kendall-Tackett, 2002; Pepin & Banyard, 2006; Shaw & Krause, 2002). Findings from prior studies suggest that lower levels of psychosocial resources account for poorer outcomes. Yet, surprisingly absent from the literature is consideration of individuals who experienced childhood abuse but who were able to secure critical psychosocial resources, thus fostering resilience to the abuse. Therefore, this study examines whether the presence of psychosocial resources in adulthood is associated with better well-being among victims of childhood parental abuse.

## CHILDHOOD PHYSICAL ABUSE: A CONCEPTUAL DEFINITION

The literature generally classifies three types of abuse: sexual, emotional, and physical, and oftentimes, physical and sexual abuse are examined together (Chapman, Dube, & Anda, 2007; Edwards, Holden, Felitti, & Anda, 2003; Lipman, MacMillan, & Boyle, 2001). Yet, assessments find the independent effects of physical abuse are just as detrimental to well-being as sexual abuse (Chapman et al.; Rodgers et al.,

2004), and physical abuse may occur more often than sexual abuse (16% vs. 9%; U.S. Department of Health and Human Services, 2008). Therefore, we consider independent effects of parental physical abuse in childhood.

Measurements of childhood physical abuse often refer to instances of extreme abuse (e.g., kicking, biting, punching, hitting, choking, or burning a child) by one or both parents (e.g., Irving & Ferraro, 2006; Shaw & Krause, 2002). Further demarcation also occurs between severe forms (e.g., pushing, grabbing, or shoving; slapping) and very severe forms (Corliss et al., 2002; Irving & Ferraro; Pepin & Banyard, 2006). These distinctions are important for understanding abuse among adults of different ages. The use of physical punishment across cohorts suggests that acceptable forms of discipline for children in the early part of the 20th century may now be considered “severe” forms of physical abuse (e.g., slapping; Forehand & McKinney, 1993). “Very severe” abuse, however, has not been considered a widespread form of discipline for people of any ages. Therefore, we examined the impact of very severe physical abuse by parents in childhood due to its long-reaching effects across different cohorts.

## RESILIENCE AND POTENTIAL LONG-TERM EFFECTS OF CHILDHOOD ABUSE

Theories of resilience and cumulative disadvantage may offer explanations for why some victims of parental childhood physical abuse have poor health and well-being in adulthood and why other victims report relatively better health and well-being. Though cumulative disadvantage posits that negative events can set an individual on a trajectory of poor outcomes (Dannefer, 2003; O’Rand, 1996), the effects of adverse events are not unchangeable over the life course (Ferraro & Shippee, 2009). That is, some adults may be resilient to the effects of parental physical abuse in childhood and maintain healthy and

stable levels of psychological and physical functioning (Bonanno, 2004; Bonanno et al., 2002; Masten, 2001). Though traumatic events during childhood may impede the development of psychosocial resources for many individuals (Bowly, 1980; Brown & Harris, 1978), the availability of psychosocial resources, avoidance of other traumatic events, and/or access to other supportive adults during the abuse may foster resilience, thus making room for optimal levels of well-being (Houshyar & Kaufman, 2005). This support in childhood may be a precursor to other positive and protective events, including the development of effective personal control, social networks, and the ability to take advantage of critical turning points and opportunities across the life course (e.g., a good marriage, work stability, educational attainment; Masten et al., 2004).

Therefore, we wanted to understand how the presence of psychosocial factors may foster resilience in adults who experienced very severe parental physical abuse in childhood and how the lack of such resources may be detrimental to health and well-being. Although there are numerous resources to examine, the benefits of personal control and social supports (emotional and instrumental) warrant consideration because of their positive associations with well-being (Irving & Ferraro, 2006; Ross & Mirowsky, 2003). We chose to focus on perceived constraints (or lack of personal control) because perceived constraints do not depict the person's sense of efficacy or effectiveness in carrying out goals but represent beliefs that there are uncontrollable obstacles or factors that may interfere with those goals (Lachman & Weaver, 1998). These thoughts may be true for victims of childhood physical abuse, and overcoming such "obstacles" may be important to health and well-being. For example, perceived constraints may affect associations between abuse and well-being and precipitate beliefs that health and happiness are unattainable. A lack of perceived constraints (or strong personal control) may be key in fostering health and well-being among victims of very severe parental physical abuse in childhood.

Furthermore, prior studies have found that victims of parental physical abuse in childhood typically fare worse than individuals who did not experience such abuse because of a lack of close relationships (Pepin & Banyard, 2006; Shaw & Krause, 2002). Close relationships are important for happiness and life satisfaction (Rook, Mavandadi, Sorkin, & Zettel, 2007) and particularly beneficial for those who have suffered adversity (Cohen, 2004). Because the negative impact of stressors is diminished for people with stronger social supports (Antonucci, Birditt, & Akiyama, 2009), the perception of such support may decrease the psychological and physical responses to the abuse and may be important in promoting resiliency in later life (Cohen; Fuller-Iglesias, Sellars, & Antonucci, 2008). Therefore, because of the potential impact of these psychosocial resources, we consider the implications of current levels of personal control, emotional support, and instrumental support on well-being for victims of very severe parental physical abuse.

## CHILDHOOD PHYSICAL ABUSE: POTENTIAL MODERATING EFFECTS OF PSYCHOSOCIAL RESOURCES

Previous literature has already established the mediating effects of psychosocial resources and finds that psychosocial resources weaken the link between childhood physical abuse and adult well-being (Horwitz, Widom, McLaughlin, & White, 2001; Springer, Sheridan, Kuo, & Carnes, 2007). For example, Shaw and Krause's (2002) examination of childhood abuse in the National Survey of Midlife in the United States (MIDUS I) suggested that individuals physically abused by parents as children had higher levels of depression and reported more chronic conditions and that personal control and emotional support in adulthood mediated this association. Therefore, the effects of parental physical abuse in childhood may vary based on the availability of psychosocial resources, specifically personal control and support.

Although previous literature enhances our understanding of how psychosocial resources may foster resilience in adulthood well-being for victims of childhood physical abuse, these findings raise the question of variability among individuals who experienced very severe childhood physical abuse by their parents. Indeed, it is possible that psychosocial resources exert moderating associations between early childhood abuse and adult well-being. Therefore, we hypothesize that when levels of emotional support, instrumental support, and personal control are higher, victims of very severe childhood physical abuse will exhibit resilience to the abuse, thus exhibiting better health and well-being outcomes. Conversely, very severe physical abuse in childhood paired with lower levels of support and personal control may result in poorer well-being in adulthood.

## METHODS

### *Sample and Design*

Data were from the larger Midlife in the United States (MIDUS I), a nationally representative study designed to assess how different factors mesh to affect physical health and well-being during the transition from early adulthood to midlife and to old age. The protocol included a 30-min phone interview and two self-administered questionnaires. The MIDUS oversampled men and older adults. Analyses for this article will only focus on the psychosocial variables in adulthood as the MIDUS has only limited retrospective data regarding participants' childhood.

### *Sample for This Study*

Although there were 3,487 main respondents included in the MIDUS I, we limited our study to 2,711 who answered key questions on very severe childhood physical abuse by parents and who identified having a mother and a father figure in childhood. The following section includes a discussion of the sample creation.

The first step in sample creation was to cull participants who answered two of the very severe physical abuse questions from the Conflict Tactics Scale (Straus, 1979). Each question asked how often (a) a mother or (b) a father “kicked, bit, hit with a fist; hit or tried to hit with something; beat-up; choked; and/or burned or scalded” the participant during childhood. The second step in sample creation was to also select participants who identified two parental figures during childhood. Including participants who only had one parental figure may confound the number of parents with the frequency of exposure to physical violence (e.g., Shaw & Krause, 2002) and may introduce other factors, such as death and separation of parents.

Therefore, of the original MIDUS I participants, 776 (22%) were dropped from the sample because (a) participants did not report having both a mother and a father figure during childhood and adolescence ( $n = 650$ , 19%) and (b) participants did not respond to any of the parental very severe abuse items ( $n = 126$ , 3%). The final sample for this study includes 2,711 adults who either never experienced abuse ( $n = 2,057$ ) or experienced abuse from either one or both of their parents ( $n = 654$ ), all of whom identified a mother and father figure in childhood. Analyses that follow used listwise deletion of missing values to deal with item nonresponse (e.g., Shaw & Krause, 2002).

### Dependent Variables

*Negative affect.*—Negative affect was the average of six items assessing current bad mood through the examination of negative feelings. The question asked, “During the past 30 days, how much of the time did you feel: so sad nothing could cheer you up, nervous, restless or fidgety, hopeless, that everything was an effort, and/or worthless,” rated from 1 (*none of the time*) to 5 (*all of the time*),  $\alpha = .88$ . Prior research on the MIDUS I has also used the average of negative affect (e.g., Mroczek, 2004).

*Physical health status.*—For parsimony in analyses, current physical health was represented by an index composed of two measures: a single item assessing self-rated health, rated from 1 (*poor*) to 5 (*excellent*) and a count of 31 chronic health conditions (e.g., asthma, hypertension, cancer; Shaw & Krause, 2002). To ensure the health index variable indicated that higher scores reflected better health, we took the “additive inverse” of the chronic condition score. Using  $z$  scores, we standardized the self-rated physical health and chronic condition measures and summed them together to create a health problem index (see Antonucci, Ajrouch, & Janevic, 2003).

### Independent Variable

*Very severe physical abuse.*—We created a dichotomous variable (0 = *did not experience abuse* and 1 = *experienced*

*abuse*) from the original scale used for the two parental abuse items (1 = *never*, 2 = *rarely*, 3 = *sometimes*, and 4 = *often*). Our variable represented people who either never experienced abuse at all during childhood from either parent (e.g., they responded “never” for both items and were coded as “did not experience abuse”) or who experienced abuse from one or both of their parents (i.e., the respondent answered “rarely,” “sometimes,” or “often” for either both parents or for just one of his or her parents; these participants were coded as “experienced abuse”). Other studies that have used the MIDUS have operationalized their abuse variable as experiencing abuse from one or both of their parents (Corliss et al., 2002; Shaw & Krause, 2002). To make sure that we considered different operationalizations of the abuse variable, we conducted the final models using abuse as a continuous variable, as a categorical variable (i.e., 1 = *never*, 2 = *rarely/sometimes*, 3 = *often*), and as the dichotomous variable described earlier. The pattern of findings was identical for each, so we present the final models using the dichotomous variable.

Reasons for dichotomization were threefold. First, much of the abuse literature differentiates between experiencing the abuse at all and never experiencing it (e.g., Berenson & Andersen, 2006; Leitenberg, Gibson, & Novy, 2004; Pepin & Banyard, 2006). Second, items comprising the very severe abuse variable were skewed toward never (~80%). Third, we found meaningful differences between individuals who “rarely” and those who “never” experienced abuse (i.e., those who were “rarely” abused had lower levels of physical health). Finally, this dichotomy best represents our theoretical perspective that even one experience of very severe abuse is a trauma in childhood.

### Moderating Variables

*Emotional support.*—Participants completed two 4-item scales assessing current emotional support from friends and from family in adulthood (Rossi, 2004). Questions included “How much do members of your family (not including your spouse or partner)/friends really care about you?”; “How much do they understand the way that you feel about things?”; “How much can you rely on them for help if you have a serious problem?”; and “How much can you open up to them if you have a serious problem?” Each was rated from 1 (*not at all*) to 4 (*a lot*). The mean of the eight items was estimated to create an index of emotional support. Higher scores indicate more emotional support (Shaw & Krause, 2002),  $\alpha = .87$ .

*Instrumental support.*—Instrumental support was assessed by the number of hours per month the individual received unpaid assistance (not including assistance from the spouse or partner; Rossi, 2004).

*Personal control.*—Assessment of personal control included eight questions on perceived constraints (Lachman &

Table 1. Descriptive Information for Variables in Models

Variable	Total ( <i>N</i> = 2,711)	Experienced very severe physical abuse by one or both parents ( <i>n</i> = 654)	Never experienced Very severe physical abuse by one or both parents ( <i>n</i> = 2,057)
<i>M</i> ( <i>SD</i> )			
Physical health <sup>a</sup>	0.00 (0.83)	-0.19 (0.87)	0.06 (0.81) <sup>b</sup> ***
Negative affect <sup>c</sup>	1.57 (0.64)	1.76 (0.76)	1.51 (0.59)***
Personal control <sup>d</sup>	5.29 (1.26)	5.03 (1.36)	5.36 (1.23)***
Emotional support <sup>e</sup>	3.32 (0.53)	3.14 (0.57)	3.38 (0.51)***
Instrumental support <sup>f</sup>	2.66 (10.46)	2.33 (7.64)	2.76 (11.20)
Age	46.68 (13.06)	45.49 (12.16)	47.05 (13.32)**
Education <sup>g</sup>	3.00 (1.16)	2.89 (1.15)	3.04 (1.17)**
Proportions			
Very severe physical abuse	.24	1.00	.00
Female	.50	.43	.52***
Mother alive	.65	.68	.65
Father alive	.47	.47	.48

<sup>a</sup>Composite physical health scores range from -2.88 to 1.50. The score is the mean of two standardized items.

<sup>b</sup>Significance values represent mean differences between abused and nonabused using chi-square tests (dichotomous) and *t* tests (continuous).

<sup>c</sup>Negative affect has a score range from 1 to 5. This variable was square root transformed because of positive skew.

<sup>d</sup>The score is the mean of eight items, rated from 1 (*agree strongly*) to 7 (*disagree strongly*).

<sup>e</sup>The score is the mean of eight items, rated from 1 (*not at all*) to 4 (*a lot*).

<sup>f</sup>This variable represents the number of hours the participant received unpaid assistance, ranging from 0 to 245 hr per month.

<sup>g</sup>This variable is rated 1 (*less than a high school degree*), 2 (*high school graduate*), 3 (*some college*), 4 (*college graduate*), and 5 (*advanced degree*).

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

Weaver, 1998). Example items included “I have little control over the things that happen to me” and “I sometimes feel as if I’m being pushed around in my life.” Items were rated from 1 (*agree strongly*) to 7 (*disagree strongly*); thus, higher scores reflect lower levels of perceived constraints. The scale consisted of the mean of the eight items,  $\alpha = .85$ .

## RESULTS

### *Preliminary Analyses and Analytic Strategy*

Descriptive statistics for the sample are shown in Tables 1 and 2. Table 1 depicts mean group differences assessed using independent *t* tests between the abused and nonabused groups. Consistent with other studies investigating childhood abuse using the MIDUS I (e.g., Shaw & Krause, 2002), 24% of respondents reported childhood physical abuse by one or both parents. Half of the respondents were women, and the average age of all participants was 47 years. In general, the mean level for most resources was significantly lower for adults who experienced very severe childhood abuse. Overall, abused respondents had poorer levels of personal control and emotional support, as well as poorer physical health and higher levels of negative affect.

Not all victims of childhood physical abuse had low levels of resources, however. In fact, we found that there are abused individuals who had higher levels of personal control (*n* = 312), emotional support (*n* = 333), and instrumental support (*n* = 294). Therefore, Table 2 depicts an analysis of mean differences between abused individuals who had high levels of resources and abused individuals who had lower levels of resources. Individuals who were abused

and who had high levels of personal control and emotional support generally reported higher mean levels of physical and psychological health than abused people with lower levels of personal control and emotional support. Additionally, abused individuals higher in personal control also had higher mean levels of emotional support. Likewise, abused individuals high in emotional support had higher levels of personal control.

Regarding high and low scores for support, we used median splits to distinguish between low and high levels of control and support. Although we recognize limitations when employing the use of median splits (e.g., loss of power; MacCallum, Zhang, Preacher, & Rucker, 2002), we did not use the dichotomous median split variables in regression analyses where the loss of power would be problematic. Rather, we used this split in the figures and Table 2 because we are simply trying to get a glimpse of the differences among abused individuals who have “low” and “high” levels of resources. Other studies use a similar approach (e.g., Fingerman, Pitzer, Lefkowitz, Birditt, & Mroczek, 2008).

To test our research questions, we conducted two ordinary least squares regression models where negative affect and the physical health index were analyzed separately as dependent variables. The key independent variable in each model was very severe physical abuse by parents in childhood. Moderating variables included current levels of emotional support from friends and family, instrumental support, and personal control. For each dependent variable, we estimated models that included interactions between very severe physical abuse by parents in childhood and each of the

Table 2. Mean Differences for Victims of Very Severe Childhood Physical Abuse by One or Both Parents Based on Levels of Personal Control and Supports

Variable	Personal control		Emotional support		Instrumental support	
	Low levels	High levels	Low levels	High levels	Low levels	High levels
<i>M (SD)</i>						
Physical health	-0.50	0.11 <sup>a,***</sup>	-0.32	-0.07 <sup>***</sup>	-0.18	-0.21
Negative affect	2.08	1.43 <sup>***</sup>	1.96	1.56 <sup>***</sup>	1.75	1.76
Personal control	—	—	4.59	5.45 <sup>***</sup>	4.95	5.12
Emotional support	2.96	3.33 <sup>***</sup>	—	—	3.11	3.19
Instrumental support	2.26	2.45	1.82	2.82	—	—
Age	46.37	44.67	43.85	47.07 <sup>**</sup>	46.92	43.75 <sup>***</sup>
Education	2.68	3.12 <sup>***</sup>	2.86	2.93	2.83	2.97
Proportions						
Female	.49	.37 <sup>**</sup>	.40	.45	.43	.43
Mother alive	.64	.73 <sup>*</sup>	.70	.66	.65	.73 <sup>*</sup>
Father alive	.46	.49	.51	.44	.44	.51

Note: Median splits were used to differentiate between low and high levels of each resource.

<sup>a</sup>Significance values represent mean differences between abused and nonabused using chi-square tests (dichotomous) and *t* tests (continuous).

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

moderating variables, as well as their main effects. We grand-mean centered the moderating variables prior to estimating interactions. The abuse variable was not centered due to its dichotomous nature (Jaccard & Turrisi, 2003). Given the large age range of the sample, participant age was also considered in three-way interactions with abuse and resources. Patterns did not differ between age groups, however, so we simply controlled for age, along with sex, education, and mother or father still living (i.e., we did not want to confound the memories of abuse with the subsequent death of a parent) in the final models.

#### Severe Physical Abuse and Well-being

Models with significant findings for very severe physical abuse in childhood and subsequent well-being in adulthood are presented in Table 3. One significant interaction effect

emerged from each model: Parental Physical Abuse × Personal Control. In the model predicting physical health, we found significant main effects for parental physical abuse, personal control, emotional support, and instrumental support. This indicated that people who were very severely physically abused in childhood by their parents had lower levels of physical health and those who had higher levels of personal control and emotional support reported better health. Conversely, individuals who reported more instrumental support reported lower physical health levels. In the model predicting negative affect, we also found significant main effects for abuse, personal control, and emotional support. That is, the experience of very severe childhood physical abuse was associated with worse psychological well-being, whereas higher levels of personal control and emotional support were associated with better psychological well-being.

Table 3. Regression for Very Severe Physical Abuse, Personal Control, Emotional Support, and Instrumental Support Predicting Adult Physical Health and Negative Affect (*N* = 2,711)

	Physical health			Negative affect		
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>B</i>	<i>SE B</i>	<i>t</i>
Intercept	0.26	0.12	2.14 <sup>*</sup>	1.28	0.03	41.70 <sup>***</sup>
Very severe abuse by one or both parents	-0.18	0.04	-4.85 <sup>***</sup>	0.05	0.01	4.64 <sup>***</sup>
Personal control	0.16	0.02	10.58 <sup>***</sup>	-0.08	0.00	-19.16 <sup>***</sup>
Emotional support	0.15	0.04	4.00 <sup>***</sup>	-0.04	0.01	-4.14 <sup>***</sup>
Instrumental support	-0.00	0.00	-2.09 <sup>*</sup>	0.00	0.00	1.36
Very Severe Abuse × Personal Control	0.06	0.03	2.10 <sup>*</sup>	-0.02	0.01	-2.58 <sup>*</sup>
Very Severe Abuse × Emotional Support	-0.05	0.07	-0.72	-0.02	0.02	-1.11
Very Severe Abuse × Instrumental Support	0.01	0.00	1.13	-0.00	0.00	-0.73
Age	-0.01	0.00	-4.72 <sup>***</sup>	-0.00	0.00	-6.06 <sup>***</sup>
Sex	-0.14	0.03	-4.30 <sup>***</sup>	0.04	0.01	4.61 <sup>***</sup>
Education	0.09	0.01	6.44 <sup>***</sup>	-0.00	0.00	-0.28
Mother alive	0.12	0.04	3.19 <sup>**</sup>	0.00	0.01	0.17
Father alive	0.02	0.04	0.46	0.00	0.01	0.17
<i>R</i> <sup>2</sup>		.20			.30	
<i>F</i>		47.77 <sup>***</sup>			80.88 <sup>***</sup>	

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

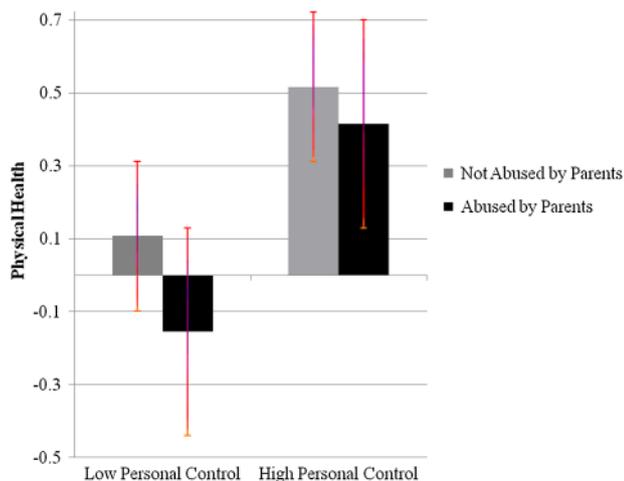


Figure 1. Physical health and interaction between very severe abuse by one or both parents in childhood and personal control.

To explore significant interactions, we estimated post hoc tests that included plotting simple regression lines for high and low values of the moderator variables (Aiken & West, 1991; Holmbeck, 1997). Our equation included terms for the control variables, two main effects, and the interaction term. We inserted the unstandardized regression coefficients for the  $\beta$ s and y-intercept and used all possible combinations of high (+1 *SD*) and low (-1 *SD*) values for the moderators. For the dichotomous abuse variable (the predictor), we inserted 0 to estimate lines for nonabused and 1 for abused individuals (Aiken & West). From these analyses, we created “abused-high,” “abused-low,” “nonabused-low,” and “nonabused-high” values and plotted the predicted values for each independent variable. The error bars on the figures represent the standard error of the plotted points or the average deviation from the actual *y* from the predicted *y*.

With regard to physical health, Figure 1 illustrates the significant interaction between Parental Physical Abuse  $\times$

Personal Control. Individuals with high personal control were in better physical health overall. Specifically, physical health levels were somewhat comparable between individuals who experienced parental physical abuse and who had high levels of personal control and their nonabused counterparts. Additionally, the figure shows that very severe abuse is associated with diminished physical health, particularly when an individual has lower levels of personal control. These individuals exhibited the lowest levels of physical health overall. Note that in this figure, the *y*-axis is restrained to show the effect, and the true range of the *y*-axis is from -2.88 to 1.50.

Figure 2 depicts the significant interaction between parental physical abuse and personal control with regard to negative affect. We found that people who were parentally physically abused as children and who had higher levels of personal control looked comparable with their nonabused counterparts. That is, they too exhibited lower levels of negative affect. Yet, the detrimental association between lower levels of personal control and negative affect seemed particularly pronounced for individuals who were abused as children. That is, these individuals seemed to have some of the lowest levels of personal control overall. Again, note that the *y*-axis has been restricted to show the effect, and the true range of the *y*-axis is 1–2.24 as the negative affect variable was square root transformed because of high skew.

To understand differences between abused and nonabused individuals on physical health and negative affect based on the level of personal control, we employed the Johnson–Neyman technique (Hayes & Matthes, 2009; Johnson & Neyman, 1936). This technique identifies regions in the range of personal control where the effect of parental physical abuse on negative affect and physical health is statistically significant and nonsignificant. What we found was that in each model, with the exception of very high levels of personal control (6.54 and above [out of a scale of 7] for the physical health model and 6.32 and above [out of a scale of 7] for the negative affect model), abuse was a significant predictor across most levels of personal control. Figures 1 and 2 also show that this effect was larger for low values of personal control than for higher values.

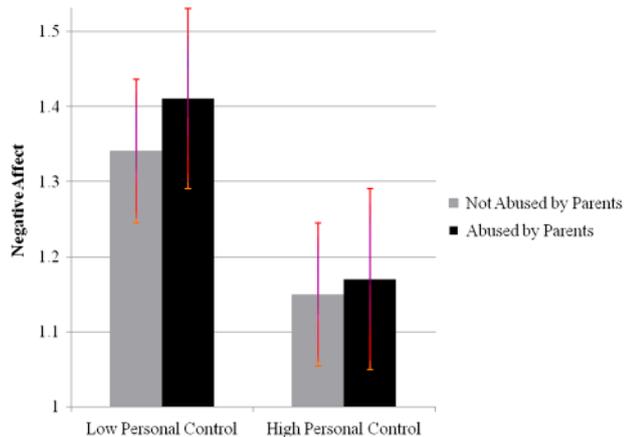


Figure 2. Negative affect and interaction between very severe abuse by one or both parents in childhood and personal control.

## DISCUSSION

The purpose of this study was to examine whether psychosocial resources are protective against the effects of childhood physical abuse. Prior research has shown that individuals who suffered abuse from their parents in childhood suffer poorer physical and psychological health compared with people who did not suffer such abuse (Afifi, Brownridge, Cox, & Sareen, 2006; Sachs-Ericsson, Kendall-Tackett, & Hernandez, 2007; Springer et al., 2007). Furthermore, other studies have substantiated mediating effects of psychosocial resources and suggested that a lack in resources can predict poorer well-being in adulthood for abuse victims (Horwitz et al., 2001; Shaw & Krause, 2002).

Yet, prior studies had not considered heterogeneity in the population of adults who were abused as children, not all such adults incur lack of resources or poorer outcomes. Conclusions from this study highlighted two important revelations: (a) very severe parental physical abuse in childhood does not always lead to poor health and well-being in adulthood and (b) personal control is a key resource in buffering against detrimental effects of childhood physical abuse. These results, therefore, extend prior research by showing that not only did the mean level of resources differ for adults who suffered very severe parental physical abuse in childhood versus those who did not, but the potential implications of these deficits in resources may be worse for victims of parental physical abuse.

Furthermore, these results are consistent with prior research on resiliency. Resilience to a traumatic event is characterized by the ability to maintain stable levels of psychological and physical health (Bonanno, 2004; Masten, 2001). Although this study cannot address the “maintenance” of stable levels of well-being, the findings suggest that a sense that one can achieve his or her goals is a source of strength for victims of childhood physical abuse. The long-term maintenance of health and well-being after childhood abuse is facilitated by the perception that one can overcome obstacles and barriers to goals, which may include a healthier lifestyle.

#### *Personal Control and Well-being*

The importance of personal control was not surprising given previous research linking personal control to psychological and physical health (Prenda & Lachman, 2001; Ross & Mirowsky, 2003). Not only may personal control beliefs motivate health behaviors (Skaff, 2007), but personal control and the presence of stable and close relationships were major factors in children’s resilience to abuse in prior studies (Bolger & Patterson, 2003; Cicchetti & Rogosch, 1997). Results from the present study suggest another component in the connection between parental physical abuse in childhood, personal control, and adulthood well-being. From preliminary analyses on mean differences, we found that individuals physically abused by their parents in childhood who had higher levels of personal control had higher mean levels of emotional support from friends and family than those who experienced parental physical abuse in childhood with low personal control. These differences suggest that emotional support may play an important role in the formation of personal control. Although this study did not follow parentally abused children over time, findings suggest that stable parents, guardians, and other close individuals may provide support to some abused children, fostering development of personal control (Ross & Mirowsky; Shaw, Krause, Chatters, Connell, & Ingersoll-Dayton, 2004; Uchino, 2009). This underlying link between emotional support and personal control may explain why emotional support was not a significant moderator.

Contrary to expectations, we did not find that instrumental support makes a difference for well-being. Previous literature suggested that social support is only effective in reducing the effects of stressful events when the form of social support matches the demands of the event (Cohen, 2004). Therefore, instrumental support (e.g., help around the house, transportation, childcare) may not be appropriate or useful for someone who was physically abused as a child. These individuals may need emotional supports to help foster a sense of personal control to dampen the long-lasting effects of abuse.

#### *Limitations*

Although this study provides new insights on the role of personal control for victims of childhood abuse, it has some limitations. First, the cross-sectional nature of the study implies that we can only speak to associations and not causality. Future research should examine associations among variables over time to see if the continued presence of personal control aids in the maintenance of healthy levels of well-being for victims of childhood physical abuse. Second, the data collection method confounded reports of physical health and psychological well-being with reports of childhood physical abuse. Most recent evidence suggests, however, that memories of specific childhood experiences are highly stable and not subject to mood (Yancura & Aldwin, 2009) and retrospective memories tend to be fairly accurate when remembering childhood abuse (Hardt & Rudder, 2004).

Finally, this study is an initial foray in considering how individuals who experienced very severe childhood physical abuse vary from one another. Although we examined current levels of support and personal control in adulthood, the life course perspective suggests that those psychosocial resources may reflect other factors associated with the context of abuse in childhood. Presence or absence of resources at this measurement point in adulthood is not necessarily indicative of the presence or absence of those resources throughout life. There may be many other resources and events that could influence the formation or lack of formation of the current resources. Thus, future research should consider psychosocial and social resources received early in life and currently.

Overall, this study indicates that very severe physical abuse in childhood does not suggest that health and well-being will be poor in adulthood. This study extended prior research by considering variation in adulthood outcomes of early childhood abuse. Individual differences in health and well-being likely reflect differences in personal control. The presence of personal control appears to partially explain why some individuals are resilient to abuse and why others experience disadvantage. It is important to note, however, that this study only examined the resources that were currently present in adulthood. We consider these findings important in understanding how events that unfold over the

life course have implications on the effects of childhood abuse in adulthood. An important next initiative will be to examine the presence of psychosocial resources in childhood and adolescence, understanding whether stability in resources plays an important role in stability of well-being over time for parentally abused individuals.

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