

Raluca E. Buia, Matija Kovacic and Cristina E. Orso

## 6 Effects of adverse childhood experiences on mental well-being later in life

- 
- ▶ Adverse childhood experiences may influence mental health status and emotional well-being later in life.
  - ▶ Exposure to adverse early life experiences may favour the onset of emotional disorders.
  - ▶ Early recognition of adverse childhood experiences and appropriate interventions may play an important role in the prevention of emotional disorders in adulthood.
- 

### 6.1 Introduction

The medical literature documents the existence of a relationship between adverse childhood experiences (ACEs) and the occurrence/onset of emotional disorders (e.g. Pirkola et al., 2005, Hughes et al., 2016) and/or of risky behaviours later in life. ACEs include a set of events such as physical, sexual and emotional abuse, physical and emotional neglect, household substance abuse, household mental illness and parental separation or divorce (Finkelhora et al., 2015). Anda et al. (2002) found that experiencing adversities in early life is positively correlated with the insurgency of depression and alcoholism in adulthood. In the same vein, Chapman et al., 2004, documented a strong relationship between the number of adverse childhood experiences and the probability of lifetime and recent depressive disorders. Although the medical literature has deeply investigated this correlation, most studies are based on rather restricted samples, generally at national or even regional levels. SHARE allows us to fill in this gap and consider country-specific heterogeneity when investigating the long-run effects of exposure to early-life adverse experiences on mental health.

In this chapter, we explore the effects that ACEs may have on mental well-being in old age. More specifically, we focus on the potential relationship between emotional neglect and physical harm in childhood and adolescence and the onset of emotional disorders later in life. We analyse the probability that some emotional disorder episodes arise, and we attempt to establish whether a relationship exists with early-life negative emotional experiences.

To perform our analysis, we employ data from Waves 4 to 7 of the SHARE survey. We keep all respondents that participated in a regular SHARE wave and

participated in the SHARELIFE interview of Wave 7. The regular waves provide information with respect to the current health conditions and mental health as well as the personal characteristics of the individuals (gender, education, behavioural risks, marital status, number of children alive and others). From SHARELIFE, we need information on the retrospective childhood conditions and the respondent's household situation and new records on the quality of a parent-child relationship and early-life emotional experiences.

## 6.2 Adverse childhood experiences in SHARELIFE Wave 7

The key explanatory variables in the regression analysis that we illustrate in the sequel are several events that may be considered adverse early-life experiences. SHARELIFE asks respondents to report information on exposure to child neglect and childhood physical abuse separately for the mother and the father.

With respect to physical abuse in the family, the questionnaire addresses one item:

1. *How often did your mother/your father push, grab, shove, throw something at you, slap or hit you?* 1. Often 2. Sometimes 3. Rarely 4. Never

In addition, the survey also collects data on child physical abuse by persons outside the family:

2. *How often did anybody else physically harm you in any way?* 1. Often 2. Sometimes 3. Rarely 4. Never

Although different with respect to the items used in the epidemiological research, we consider that a good indicator for child neglect could be derived from the following question:

3. *How much did your mother/your father (or the woman/man that raised you) understand your problems and worries?* 1. A lot 2. Some 3. A little 4. Not at all

Finally, we also include among the explanatory variables the self-reported quality of the relationship with each of the parents:

4. *How would you rate the relationship with our mother/your father (or the woman/man that raised you)?* 1. Excellent 2. Very good 3. Good 4. Fair 5. Poor

Our sample consists of 18,068 men and 23,915 women, and the mean age of the respondents is 65.83 years.

Approximately 17.12% of the respondents in our sample (6,931 individuals) reported having been exposed often or sometimes to physical harm from the mother, 14.35% from the father and 6.76% from others. In the sample, 8,164 individuals (20.32% of the total) responded that the mother understood their problems ‘a little’ or ‘not at all’, whereas 12,037 (approximately 31.1%) responded that fathers had little or no understanding.

Table 6.1 presents descriptive statistics for the previous questions, separately by region in Europe.

**Table 6.1:** Descriptive statistics.

Region	Understanding			Relationship			Harm		
	Obs	median	mean	Obs	median	mean	Obs	median	mean
<b>Mother</b>									
North	8,453	2	1.77	8,644	2	2.14	8,631	4	3.56
Center	13,143	2	1.92	13,254	2	2.36	13,242	4	3.38
South	12,218	2	1.77	12,245	2	2.10	12,201	4	3.37
East	4,760	1	1.63	4,783	2	2.02	4,776	4	3.20
Israel	1,621	2	1.98	1,670	2	2.07	1,656	4	3.45
<b>Father</b>									
North	7,871	2	2.10	7,994	2	2.37	8,101	4	3.58
Center	12,661	2	2.22	12,756	3	2.61	12,803	4	3.39
South	11,947	2	2.04	11,967	2	2.36	11,985	4	3.49
East	4,676	2	1.93	4,689	2	2.29	4,694	4	3.32
Israel	1,562	2	2.14	1,603	2	2.22	1,609	4	3.39
<b>Other</b>									
North							8,703	4	3.71
Center							13,377	4	3.71
South							12,324	4	3.81
East							4,799	4	3.75
Israel							1,676	4	3.55

Source: SHARELIFE Wave 7 release 0

Following the existing research in the field, we recoded the answers into dichotomous variables, where a value of 1 indicates that the individual was exposed to a negative experience in early life. We consider that an individual experienced

physical abuse in the family if he/she answers ‘1. Often’ or ‘2. Sometimes’ for question 1, for either the mother or the father. We treated question 2 in the same manner to capture physical harm from other persons. A situation of ‘child neglect’ corresponds to answers ‘3. A little’ or ‘4. Not at all’ for question 3. The relationship with the mother/father in childhood is rated 1, that is, ‘problematic’/negative, if the respondent answers ‘4. Fair’ or ‘5. Poor’ to the last query.

### 6.3 Determinants of emotional disorders and the role of adverse early-life experiences

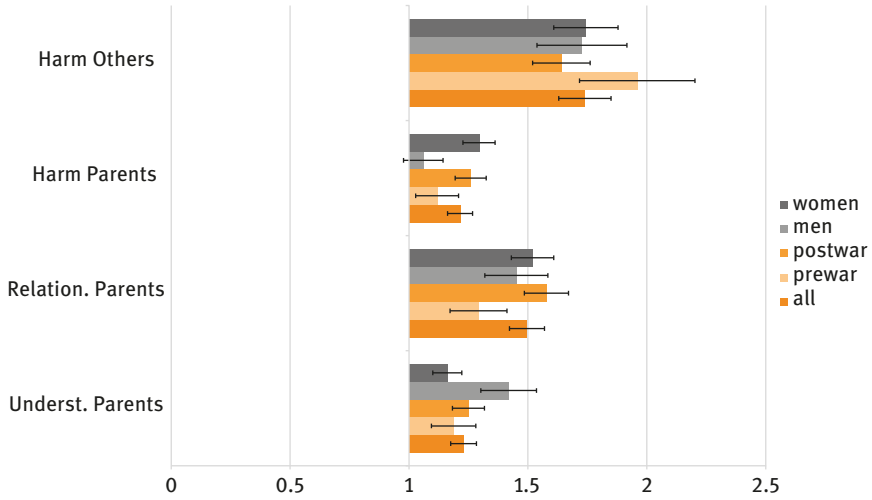
To investigate the impact of early adversities on the insurgency of emotional disorders, we estimate a set of logistic regressions. The dependent variable is an indicator that takes the value of 1 if the respondent has ever experienced an emotional disorder and 0 otherwise.

In addition to adverse childhood experience variables, we control for gender, marital status, level of education, number of children and a dummy indicator, assigning the value of 1 if respondents were born after World War II. Marital status is included through four dummy variables: single (never married), currently married (reference category), widowed and divorced or separated. Finally, we also control for the importance of religion in childhood. To account for unobserved country-specific effects, we include country dummies.

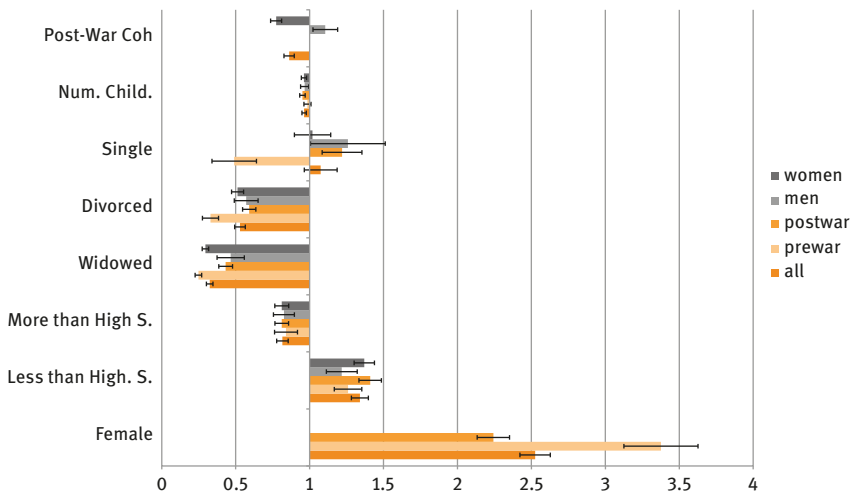
Our empirical exercise consists of five separated specifications. We first consider the entire sample and control for gender and cohort using two dummy variables. In addition, we run separate regressions for pre- and post-war cohorts and for men and women.

Figures 6.1 and 6.2 report the results from our regressions for the probability of occurrence of emotional disorders. We report the estimated coefficients as odds ratios.

The results indicate a significant relationship between adverse childhood conditions and mental health problems later in life. Having parents that do not understand their children’s concerns leads to an increase by a factor of 1.23 in the probability of experiencing an emotional disorder, whereas a poor relationship with at least one of the parents increases it by a factor of 1.49. Rather interesting is the result for the relationship between exposure to physical harm and mental well-being. Having experienced physical harm from persons outside the family has a stronger impact on the probability of mental disorders than physical harm from parents.



**Figure 6.1:** Odds ratios for adverse childhood experiences variables.  
**Note:** Logit is used as the estimation method. All regressions include country dummies.  
**Source:** SHARE Waves 4–6 release 6.1.1, Wave 7 release 0.



**Figure 6.2:** Odds ratios for other control variables.  
**Note:** Logit is used as the estimation method. All regressions include country dummies.  
**Source:** SHARE Waves 4–6 release 6.1.1, Wave 7 release 0.

Worth observing is that the intensity of the effects of ACEs on mental well-being displays important differences between the pre- and post-war cohorts (bars 2 and 3 in Figure 6.1). A poor relationship with parents has a stronger and more significant impact on the post-war cohort, whereas having experienced physical harm from parents is not significantly different from zero for the pre-war cohort. However, we note that physical abuse from persons outside the family has a more important effect for older respondents.

Nevertheless, the interpretation of these coefficients requires some caution because the dependent variable is self-reported and selective memory bias may arise. In other words, individuals affected by emotional disorder may have a distorted memory of the past and be more prone to report negative experiences from early life. If individuals with emotional problems tend to remember negative episodes more than otherwise identical individuals, the reported estimates are biased and do not reflect a causal effect of early-life conditions on mental health later in life.

Moreover, our results show important gender differences: being a woman increases by a factor of 2.5 the probability that an emotional disorder will be reported in adulthood (by 3.37 for the pre-war cohort and by 2.24 for the post-war cohort) (see Figure 6.2). This sizeable difference by gender may be driven by differences in survival and health but may also be attributable to different reporting styles if men are less likely to tell their doctor about their mental health problems. Running separate regressions for men and women allows us to obtain more insights into these gender effects (bars 4 and 5 in Figure 6.1): except for the variable that indicates little or no understanding of children's concerns, all other adverse childhood experiences have a stronger and more significant impact for women. Importantly, note that physical harm from parents is not significant for men but is for women, and the odds ratio indicates that, for the last ones, it increases by a factor of 1.29 the probability of experiencing emotional disorders later in life.

Figure 6.2 describes the estimation results for other control variables.

We observe that, in all specifications, education has a significant impact on mental well-being in adulthood. Keeping in mind that the reference category is represented by individuals with a high school degree, being less educated increases the probability of reporting mental distress, whereas more education is associated with a significantly lower probability of experiencing emotional disorders. These effects are stronger and more important for women and for post-war cohorts.

Divorced/separated and widowed respondents have lower odds of being diagnosed with an emotional disorder. Interestingly, individuals born after World War II are less prone to report an emotional disorder. However, this phenomenon

may be the result of the fact that the post-war cohort includes respondents in a broad range of younger ages.

Moreover, respondents with more children are less likely to report negative mental health conditions.

## 6.4 Conclusion

In this chapter, we analyse the relationship between early-life adverse experiences and mental well-being later in life. The study uses data on mental health from the regular waves of the SHARE survey and exploits the new retrospective information on childhood emotional experiences from SHARELIFE Wave 7. The results reveal that adverse early life conditions have a negative impact on individuals' mental health because they increase the probability of an insurgence of emotional disorders.

The importance of recognizing and preventing early adversities represents a prominent public health concern because it may play an important role in the prevention of emotional disorders in adulthood. One of the potential interventions relates to primary care routine screening because most youth make annual visits to their primary care physician – visits during which these adversities and disorders are often first detected.

## References

- Anda R.F., Whitfield, C.L., Felitti, V.J., Chapman D., Edwards V.J., Dube S.R. and Williamson D.F. (2002). Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric Services*, 53(8), pp. 1001–1009.
- Chapman D. P., Whitfield C. L., Felitti V. J., Dube S. R., Edwards V. J. and Anda R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, 82(2), pp. 217–225
- Finkelhor D., A. Shattuck, H. Turner, S. Hamby (2015). A revised inventory of Adverse Childhood Experiences. *Child Abuse & Neglect*, 48, pp. 13–21.
- Hughes K., Lowey H., Quigg Z., and Bellis M. A. (2016). Relationship between adverse childhood experiences and adult mental well-being: results from an English national household survey. *BMC Public Health*. 16:222, pp.1–11.
- Pirkola S., E. Isometsä, H. Aro, L. Kestilä, J. Hämäläinen, J. Veijola, O Kiviruusu, J. Lönnqvist, (2005). Childhood adversities as risk factors for adult mental disorders. *Social Psychiatry and Psychiatric Epidemiology* 40(10), pp. 769–777.

