



Full length article

Divorce and well-being. Disentangling the role of stress and socio economic status[☆]Danilo Cavapozzi^{a,c}, Simona Fiore^{b,d}, Giacomo Pasini^{a,c}^a Ca' Foscari University of Venice, Italy^b University of Bologna, Italy^c NETSPAR, Network for Studies on Pensions, Ageing and Retirement, Italy^d Fondazione di Ricerca – Istituto Carlo Cattaneo, Italy

ARTICLE INFO

JEL classification

I31

J12

I14

Keywords

Well-being

Divorce

Retrospective panel

Stress

Financial hardship

ABSTRACT

We investigate the happiness variations associated with divorce by drawing data from a retrospective panel dataset based on the third wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) and covering 14 European countries. This dataset proposes as a powerful tool to control for reporting style heterogeneity in happiness self-evaluations. Indeed, in addition to individual fixed-effects, we control for full migration trajectories in order to remove bias in well-being evaluations produced by cross-country heterogeneity in the cultural norms and societal values individuals have been exposed during their life-cycle. Happiness is found to increase in the period after divorce for both men and women. We show that this pattern goes through a decrease in stress and financial hardship.

1. Introduction

Research has recently focused on understanding the consequences of divorce and separation for former spouses' well-being (see Gumà et al. (2015) for a recent contribution for European countries and Clark et al. (2008) for an analysis on the impact of life and labour market events on well-being in Germany). While there is general consensus in recognizing that marital dissolution can potentially generate uneasiness in an individual's life (Amato, 2000), scholars also recognize the need to better understand the heterogeneity of outcomes according to individuals' and couples' characteristics (Amato, 2010), its evolution over time (Bauer et al., 2015; Clark and Georgellis, 2013; Rudolf and Kang, 2011), and the channels driving such detrimental effect.

In this paper we investigate the well-being variations associated with divorce and the possible channels contributing to this relationship by means of a retrospective panel based on the third wave of SHARE, called SHARELIFE, covering 14 European countries. This retrospective panel has been constructed along the lines of Brugiavini et al. (2013). Individuals interviewed in the third wave of SHARE contribute to the retrospective panel with as many observations as their years of age. The dataset will then cover a wide range of countries and a long time span.

Well-being is an intrinsically multidimensional concept typically measured by self-evaluations. In order to analyze genuine variations of well-being across individuals, it is crucial to account for differences in response styles (Bertoni, 2015; Angelini et al., 2014): conditional on actual circumstances, individuals might approach survey questions differently. Due to their innate characteristics and their life-time history, they might use different benchmarks when assessing their condition and attach the same level of well-being to different self-evaluations. Such heterogeneity in reporting styles complicates any attempt to elicit actual variations in well-being from self-evaluation comparisons. Using a retrospective, cross-country panel dataset is particularly suitable to analyze the relationship between well-being and divorce net of several confounding factors, including those related with response style heterogeneity.

First, the longitudinal structure of the data allows to implement fixed-effects panel data models to control for unobservable time-invariant characteristics, such as personality traits, potentially correlated with both well-being and marriage dissolution (Roberts et al., 2007). Moreover, Diener and Suh (2000) argue that comparability of well-being evaluations might be challenged by cross-country heterogeneity in the prevailing societal values. Individual fixed effects sweep out differences in response styles due to social norms in the country of birth and country of residence at the moment of the interview. A third type

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of bias is produced by the cultural values that individuals have been exposed to due to their migration histories involving other countries (in addition to that of birth and the one where they are currently living) or by the norms that were prevailing in the country in which they were living at the time of divorce. In a standard panel, migrants typically are not followed throughout their life, while the retrospective nature of the data at hand delivers us full migration histories of a representative sample of the over 50 population in Europe (Antonova et al., 2014). In all our specifications we will control for a full set of country of residence dummies to remove any bias related with cultural connotations in happiness evaluations embedded in individuals as a result of their migration histories. On top of reporting styles concerns, allowing for full migration trajectories is also important to control for cross-country heterogeneity in societal attitudes towards divorce, which might affect the actual decision of interrupting the family relationship. The retrospective nature of our data allows to observe how individuals' migration histories interweave with the evolution of their family relationships.

The richness of SHARELIFE data and the length of the retrospective panel also make it possible to include in our specifications a wide set of additional time-varying explanatory variables, such as number of children, physical health, labour market participation, unemployment and job industry, as well as to control for their variation along the life-cycle. Whereas these characteristics are clearly important well-being determinants, they are also expected to influence the decision of divorcing by shaping the social inclusion of individuals after the end of the family relationship. All in all, our dataset proposes to be a powerful tool to analyze the consequences of life course events on well-being.

We estimate fixed-effects linear regression models and show that for both men and women well-being reduces in the year of divorce. Nevertheless, the correlation between divorce and well-being is not likely to show up only in the year in which the divorce takes place. Anticipatory variations can be motivated by the fact that marriage dissolution is likely not to be an unexpected shock but the end of a period during which marriage life deteriorates and partners well-being is negatively affected by this process. Moreover, divorce is a key life-course event and its consequences might propagate over time. Based on a subsample of divorcees we show that, as divorce approaches, happiness decreases significantly for women and after divorce well-being improves for both genders.

Once ascertained that well-being significantly varies with divorce, it becomes relevant to understand the channels according to which this relationship materializes. The SHARELIFE questionnaire asks respondents to declare whether they experienced particular periods of financial hardship or stress. Financial hardship rises until the year of divorce and then decreases. We also find that in the years before divorce the incidence of stressful period increases. This is because divorce is typically the epilogue of a long period of within family tensions, discussions and uneasiness. After divorce, former partners experience a significant relief from stress. The improvements in happiness after divorce match the contemporaneous lower probability of experiencing stress episodes and the improvement in the financial situation with respect to year of divorce. This way, stress and financial hardship propose as part of the mechanism according to which divorce and well-being result to be correlated.

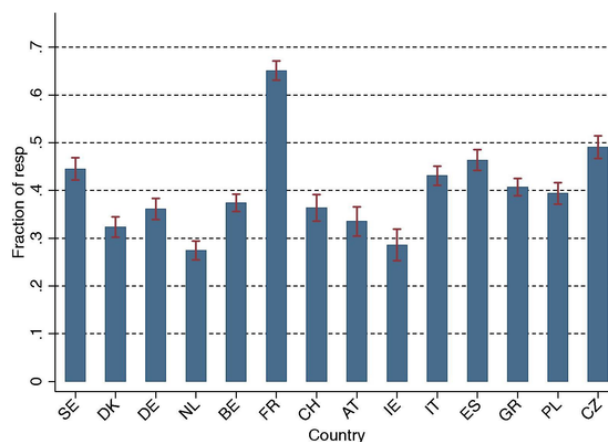
The rest of the paper is organized as follows. In Section 2 we describe in details the retrospective dataset and the key variables we use in our analysis. In Section 3 we present the econometric model and discuss the empirical evidence. The last section summarizes the main findings and discusses implications for policy makers and for future research.

2. Data and descriptive statistics

Our data are drawn from the SHARELIFE data collection organized in the years 2008/9. The sample of respondents participating in the SHARELIFE survey is representative of the population of individuals aged 50 or over and their spouses living in Northern Europe (Sweden and Denmark), Western Europe (Austria, France, Germany, Switzerland, Belgium, Ireland and the Netherlands), Southern Europe (Spain, Italy and Greece) and Eastern/Central Europe (Poland and Czech Republic). SHARELIFE provides life-history information about a representative sample of about 27,000 respondents aged 50 or over. The domains of interest include family relationships, fertility history, housing, working history, health and health care. The original dataset contains sequences of life events in a flat file format: as an example, the information about country of residence is looped over all the residences respondents had in their life and the information is stored as a set of variables for each individual in the sample. We use the data reorganized in a retrospective panel dataset (the so called "job episodes panel") described in Brugiavini et al. (2013): each respondent contributes as many observations as there are years of age from birth to the age at which they are observed at the moment of the interview. Information is then re-organized in a longitudinal file format. Following the country of residence example, for each year of respondents' life we know the country they were living at *that* time. In our study we consider SHARELIFE respondents from the year of their first marriage onwards and neglect individuals with multiple divorces. Once dropping observations with missing values for relevant variables, our sample consists of 346,570 person-year observations for men (11,324 individuals) and 473,905 person-year observations for women (14,573 individuals).

Respondents are asked whether they experienced a period in which they were distinctly happier than during the rest of their life. If any, respondents are then asked to report the years in which this period starts and ends (or if it is still ongoing). The period declared must be continuous. In presence of multiple distinct periods of higher happiness respondents are left to arbitrarily choose which one to be reported. These questions are asked at the very end of the questionnaire, several minutes after the set of questions about cohabitation and partnership histories.

In Fig. 1 we report happiness incidence by country, i.e. the fraction of respondents reporting that they experienced a distinct period of happiness in their life. This fraction varies between less than 30 percent in the Netherlands and Ireland and 65 percent in France. A potential threat to the validity of our analysis is recall bias: being forced to choose just one happiness period, respondents may report the most re-



Note: 95% confidence intervals are reported.

Fig. 1. Happiness incidence by country. Note: 95% confidence intervals are reported.

cent one or only those spanning several years. In Fig. 2a we show the distribution of age of onset in the happiness period, whereas in Fig. 2b the length of reported episodes. The evidence suggests that these two potential consequences of recall bias are not very pervasive in our sample. The age distribution is skewed towards younger ages, with a long right tail, but there is no bunching around interview age. Length of happiness spells has a very dispersed distribution, but modal lengths is one year, with many happiness spells lasting less than 10 years. Again, the prevalence of short periods speaks against recall bias. Although this descriptive evidence cannot be conclusive, it is reassuring about the reliability of the retrospective data in SHARELIFE.

The quality of SHARELIFE data-collection has been already investigated in the literature. As Havari and Mazzonna (2015) document, the instrument governing the Computer Assisted Personal Interview in SHARELIFE is an example of computerized Life Calendar Method (LCM). The first questionnaire modules administered to respondents during the SHARELIFE interview refer to their children and partner history. As respondents go through these modules, the timing of important events in their life, such as children birth and marriages, is displayed on the computer screen into a life grid. Respondents can see and use the life grid to facilitate the recall of the events that the following questionnaire modules focus on, such as accommodation and employment history. These events will be added to the life-grid as well. Moreover, the questions about the happiest period in respondents lives are at the end of the questionnaire (in the General Life module), so that respondents answering to these questions can have in front of them a complete overview of the key events of their life displayed on the life grid. This is expected to put respondents in the ideal position to recall whether they have been distinctly happier during their life and to facilitate the correct collocation of this happy period along the life-cycle. Schröder and Börsch-Supan (2008) stress the importance of the life calendar method adopted to design the survey instrument in SHARELIFE in the realization of the SHARELIFE data-collection.

We use respondents' answers to the questions about the presence and length of a particularly happy period in their life to construct a binary indicator taking on value 1 in the years belonging to this "happiest period" and 0 otherwise. For sake of simplicity, throughout this paper we will label the years for which this indicator is equal to 1 as years in which individuals are *happy*, meaning that they are in the happiest period of their life. Overall, 22% and 25% of the observations in the men and women sample respectively refer to years in which individuals are found to be happy. This means that their happiest period on average accounts for about one fourth of the life-cycle considered in our analysis.

The key explanatory variable in our study is binary and takes on value 1 in the year in which a divorce occurs and 0 otherwise. Fig. 3 reports the fraction of respondents that had one divorce in their life. There is a stark cross country heterogeneity that can be easily explained by cultural factors: divorce incidence is highest in Scandinavian countries (Sweden and Denmark), and lowest in catholic and orthodox countries (Ireland, Poland, Italy, Spain and Greece). In the Appendix Fig. A1 reports the distribution of years of divorce. Most of the divorce episodes we observe are in the '80s and '90s.

Fig. A2 shows that the percentage of respondents born in a country different from their current country of residence is highest in Germany, France and Czech Republic (around 15%). Fig. A3 reports that the percentage of divorces not taken place in the current country of residence of respondents is highest in Germany, Ireland and Spain (about 10% or over). Both figures reveal substantial cross-country heterogeneity. This descriptive evidence clearly shows that migration trajectories are an issue in our sample and a simple control for the country of residence at the time of the interview might hide heterogeneity in previous migration history and in the timing according to which these trajectories materialize over the life-cycle. This heterogeneity should be accounted for

in our empirical exercise since cross-country heterogeneity with respect to societal attitudes and legislation toward divorce might affect both divorce decisions and well-being assessments.

As discussed in the introduction, our analysis is aimed at shedding light on the mechanism that governs the relationship between divorce and well-being. In particular, we will take into account two channels by which a divorce can correlate with the well-being of individuals: stress and financial hardship. Albeit clearly interrelated, the former has a stronger focus on the psychosocial condition of individuals, the latter is more oriented to indicate periods in which respondents experience a shortage of economic resources to finance their standard of living. Following the same questionnaire design implemented to identify the presence and the position in time of the happiest periods in respondents' lives, the SHARELIFE survey includes two separate sets of questions to ask respondents about periods in which they were more stressed and experienced financial hardship.¹ Likewise the happiness questions, respondents are asked to report (at most) one continuous period of higher stress and financial hardship. As for men, the years characterized by stress and financial hardship amount to about 10% and 7% of the portion of their life-cycle covered by our data. These percentages for women are slightly higher and equal to 11% and 8%.

3. Results

3.1. The relationship between divorce and well-being

First, we estimate separately by gender the following fixed-effects linear probability model specification

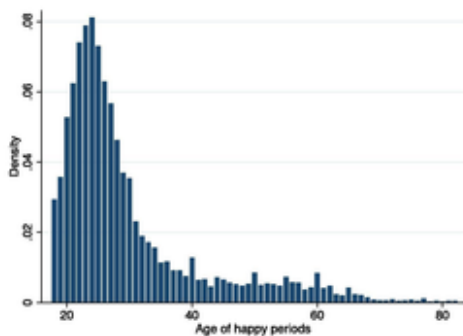
$$H_{it} = \beta_0 + \beta_1 D_{it} + \gamma' X_{it} + c_i + e_{it} \quad (1)$$

The outcome variable of our econometric specification is the binary indicator H_{it} taking on value 1 if year t belongs to the happiest period in life for respondent i and 0 otherwise. The key explanatory variable is D_{it} , which is equal to 1 if the individual i divorced in year t and 0 otherwise.

The vector of control variables X_{it} includes an extensive battery of time-varying indicators defined exploiting the retrospective nature of our dataset, which allows to reconstruct respondents' socioeconomic characteristics during their lives. First, we control for a full set of country dummies to allow for cross-country differences in socioeconomic institutions, including divorce laws and social norms regarding family dissolution. Ignoring this country-level heterogeneity would ascribe to the individual decision of divorcing well-being effects that are actually due to country-specific institutional arrangements. Moreover, as we already discussed in the introduction, the cultural attitude towards family dissolution in the countries where individuals lived may affect the response styles of interviewed individuals. Second, we control for a set of household characteristics, namely a battery of binary outcomes indicating, respectively, whether the partner dies, whether the respondent has a cohabiting partner (married or unmarried), whether a new cohabitation starts and the year of remarriage (if any). We also control for the number of children and the age of the youngest child. Third, we define individual-level indicators to describe health and economic status. As for health, we control for a battery of binary outcomes indicating if the respondent had been diagnosed in a given year or in the past with cancer, arthritis, asthma, lung diseases, diabetes, stroke, high blood cholesterol, high blood pressure and heart attack. As for the economic status, we define one dummy variable indicating whether respondents were dispossessed of their property as a result of war or persecution. Moreover, we define the employment situation distinguishing four

¹ Questions about stress and financial hardship are in the same questionnaire module as the questions about happiness (i.e. General Life module). Respondents can avail themselves of the life grid to answer them.

(a) Distribution of age of onset of happiness periods



(b) Distribution of length of happiness periods

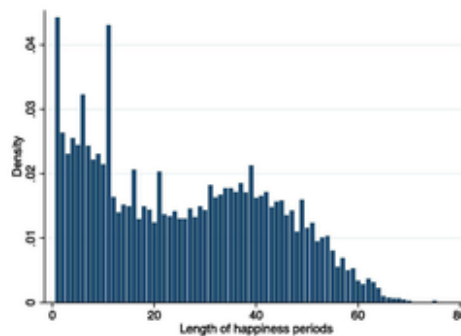


Fig. 2. Happiness periods.

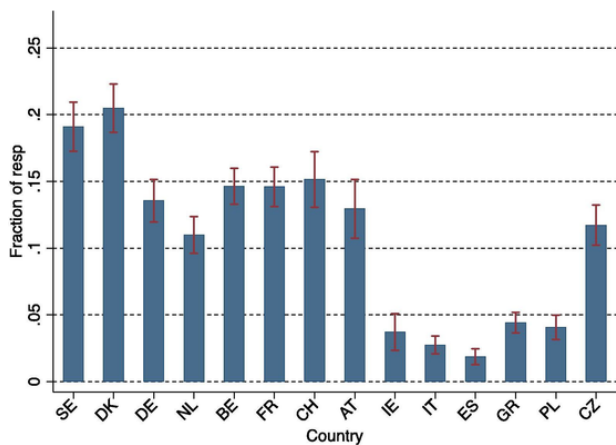


Fig. 3. Divorce incidence by country.

Table 1

Probability of being in the happiest period in life: variation in the year of divorce. Fixed-effects linear probability models estimated in the full sample.

	(1)	(2)
	Men	Women
Year of divorce	-0.032*** (0.010)	-0.045*** (0.008)
Observations	346,570	473,905
Number of individuals	11,324	14,573
Year fixed-effects	YES	YES
Country of residence fixed-effects	YES	YES

Note: Standard errors clustered at the individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1. See the Appendix for the full list of controls included in the specifications.

cases: at work, retired, unemployed and not at work for any reason other than retirement. For individuals at work we define a set of dummies indicating the industry of their job. This way, we are able to control for industry-related earning differentials.² We also control for a second order polynomial in age to capture the well-being changes associated with other individual or household characteristics varying over the life-cycle not included in our specification. Fourth, we define a full set of (calendar) year dummies to control for whatever time-varying heterogeneity at the macro-level, for instance business-cycle phases, expected to affect the well-being of individuals.³ The c_i component in Eq. (1) encompasses all individual fixed-effects potentially affecting well-being. Finally, e_{it} is an idiosyncratic error term potentially correlated across observations referring to the same individual.

Our estimates are reported in Table 1. Everything else constant, we find that the probability of being in the happiest period in life significantly decreases in the year of divorce. This reduction is equal 3.2 percentage points for men and 4.5 percentage points for women. These variations are sizeable as they account for about 15% and 18% of the sample probability of being in the happiest period in life.

However, analyzing only the contemporaneous correlation between divorce and well-being would neglect that divorce episodes are usually

² We consider the following industry categories: agriculture, hunting, forestry, fishing; mining and quarrying; manufacturing; electricity, gas and water supply; construction; wholesale and retail trade; hotels and restaurants; transport, storage and communication; financial intermediation; real estate, renting and business activities; public administration and defence; education; health and social work; other industry.

³ In order to avoid perfect collinearity between the constant, year dummies and age we drop two year dummies.

the final step of a long family dissolution process potentially affecting individuals' well-being before and after the divorce takes place. To overcome this limitation, we focus on the subsample of individuals who have divorced once in their life (we label them as "divorcees") and enrich the right-hand-side of our specification by introducing a set of lags and leads of the dummy D_{it} . The sample of divorcees consists of 36,119 person-year observations for men (1,262 individuals) and 53,308 person-year observations for women (1,734 individuals).⁴ Our aim is to describe the experience of divorce over time and show well-being variations before and after this event takes place. The resulting specification can be written as

$$H_{it} = \beta_0 + \beta_1 D_{it+5} + \beta_2 D_{it+4} + \beta_3 D_{it+3} + \beta_4 D_{it+2} + \beta_5 D_{it+1} + \beta_6 D_{it} + \beta_7 D_{it-1} + \beta_8 D_{it-2} + \beta_9 D_{it-3} + \beta_{10} D_{it-4} + \beta_{11} D_{it-5} + \beta_{12} D_{it-6} + \gamma' X_{it} + c_i + e_{it} \quad (2)$$

The dummy D_{it+j} takes on value 1 if the individual will experience the divorce $j = 1, \dots, 5$ years later. The dummy D_{it-j} takes on value 1 if the individual experienced the divorce $j = 1, \dots, 5$ years before. The dummy D_{it-6} takes on value 1 if the individual experienced the divorce more than 5 years before. The omitted category is experiencing the divorce in more than 5 years from time t . It is also worth noting that since we drop multiple divorces from our sample, the dummies $D_{it-6}, \dots, D_{it+5}$ are mutually exclusive. Then, the coefficients $\beta_1, \dots, \beta_{12}$ show the time differences in the probability of being in the happiest pe-

⁴ In the sample of divorcees the proportion of years spent in the happiest period in life, in the most stressful period in life and in financial hardship amount to, respectively, 20%, 13% and 8% for men and to 22%, 16% and 13% for women.

riod in life for divorcees with respect to being more than 5 years before the divorce.

Table 2 reports the coefficient estimates and their standard errors for the set of divorce dummies included in our specifications⁵. Fig. 4 plots them to simplify their interpretation. Everything else constant, as divorce approaches, the probability of being happy remains overall stable for men but significantly reduces for women. This suggests that for women there is a burden associated with the family dissolution process leading to divorce. After divorce the well-being of divorcees increases suggesting a relief from a troublesome family situation. We documented in Table 1 that divorce is a traumatic event leaving a mark throughout divorcees' lives. However, our findings in Table 2 suggest that once netting out for differences in time-varying factors, such as cohabiting relationships and employment conditions, the divorcees well-being in the years following the divorce improves as compared with the years preceding the event.

There is a wide literature investigating the effect of key life course events on well-being that places particular attention in assessing whether individuals exhibit adaptation see for instance (Bauer et al., 2015; Clark and Georgellis, 2013; Lucas and Clark, 2006; Lucas et al., 2003; Rudolf and Kang, 2011). We refrain from drawing conclusions concerning lack of adaptation based on our results. Our outcome variable, while not suited to analyze this issue, proposes as a convenient summary indicator of the presence of a distinct sizeable improvement in happiness within the whole life-course and it offers a unique set-up to analyze whether and how this improvement matches with the main life-course events, such as divorce. In other words, this paper can complement this literature from a life-history perspective.

3.2. Understanding the mechanism

Once we estimated the well-being variations before and after divorce, it becomes important to understand the channels governing this relationship. Stress and financial hardship are important dimensions of well-being and both of them are likely to be correlated with divorce. Other channels may be at play and our analysis cannot rule them out. However, we think it is important to focus on these two examples of financial and non-financial dimensions of well-being to take into account the intrinsic multidimensionality of this concept. We claim that the increase in happiness after the divorce can be correlated with a decrease in stress and financial hardship.

First, we use econometric specifications analogous to the one in Eq. (2) to assess whether and how the probability of being in the most stressful period in life and the probability of experiencing financial hardship vary in the years preceding and following divorce.⁶ A necessary condition to claim that stress and financial hardship act as channels governing the relationship between divorce and happiness is that they are significantly associated with divorce once we control for the battery of time-invariant and time-varying factors showing up in Eq. (2). The coefficient estimates are summarized in the Tables 3 and plotted in Fig. 5, which shows the time profile of variations in the probability of being in a stressful period associated with the occurrence of divorce. Both men and women experience an increasing stress in the years preceding the divorce, which peaks in the year in which the divorce takes place and then vanishes. Fig. 6 summarizes the same

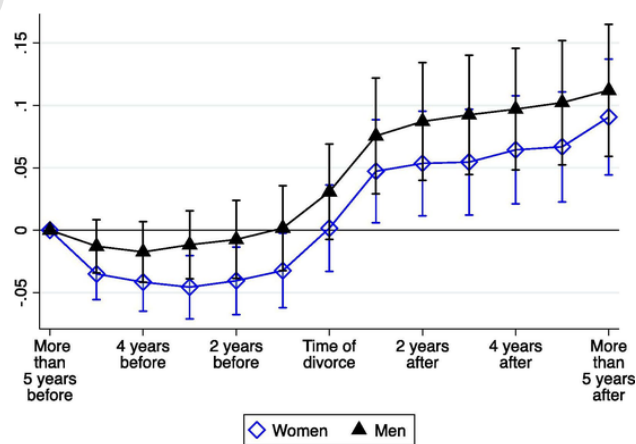
⁵ The Appendix reports the full set of estimates for all the specifications estimated in this paper.

⁶ Throughout this paper, the empirical specifications show how happiness, stress and financial hardship vary with divorce net of time-varying observed controls and individual fixed-effects. As long as reverse causality is an issue (i.e. happiness, stress and financial hardship influence the decision of divorcing), our results are clearly descriptive and we cannot draw any conclusion about causality.

Table 2
Probability of being in the happiest period in life: variations around the year of divorce. Fixed-effects linear probability models estimated in the sample of divorcees.

	(1)	(2)
	Men	Women
5 years before divorce	-0.013 (0.011)	-0.035*** (0.010)
4 years before divorce	-0.017 (0.012)	-0.042*** (0.012)
3 years before divorce	-0.012 (0.014)	-0.046*** (0.013)
2 years before divorce	-0.007 (0.016)	-0.041*** (0.014)
1 year before divorce	0.002 (0.017)	-0.032** (0.015)
Year of divorce	0.031 (0.020)	0.002 (0.018)
1 year after divorce	0.076*** (0.024)	0.047** (0.021)
2 years after divorce	0.087*** (0.024)	0.054** (0.021)
3 years after divorce	0.092*** (0.024)	0.055** (0.022)
4 years after divorce	0.097*** (0.025)	0.064*** (0.022)
5 years after divorce	0.102*** (0.025)	0.067*** (0.023)
More than 5 years after divorce	0.112*** (0.027)	0.091*** (0.024)
Observations	36,119	53,308
Number of individuals	1,262	1,734
Year fixed-effects	YES	YES
Country of residence fixed-effects	YES	YES

Note: Standard errors clustered at the individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1. See the Appendix for the full list of controls included in the specifications.



Note: 95% confidence intervals are reported.

Fig. 4. Happiness trajectory before and after the divorce, by gender. Note: 95% confidence intervals are reported.

analysis conducted for the probability of being in financial hardship. In this case, anticipated variations are less prominent and become significant for both genders only two years before the divorce takes place. Most of the divorce-related variations in the occurrence of financial hardship episodes materialize with the occurrence of the family dissolution.

Table 3
Probability of being in the most stressful period in life and in financial hardship: variations around the year of divorce. Fixed-effects linear probability models estimated in the sample of divorcees.

	Being stressed		Being in financial hardship	
	Men	Women	Men	Women
	(1)	(2)	(3)	(4)
5 years before divorce	0.019* (0.011)	0.026** (0.010)	0.010 (0.008)	0.018** (0.008)
4 years before divorce	0.033*** (0.012)	0.030** (0.012)	0.009 (0.009)	0.014 (0.009)
3 years before divorce	0.045*** (0.014)	0.043*** (0.013)	0.017* (0.010)	0.031*** (0.010)
2 years before divorce	0.054*** (0.015)	0.070*** (0.015)	0.033*** (0.012)	0.043*** (0.011)
1 year before divorce	0.073*** (0.017)	0.090*** (0.016)	0.051*** (0.013)	0.061*** (0.013)
Year of divorce	0.094*** (0.018)	0.108*** (0.017)	0.096*** (0.014)	0.136*** (0.015)
1 year after divorce	0.012 (0.019)	-0.009 (0.019)	0.056*** (0.016)	0.072*** (0.017)
2 years after divorce	-0.020 (0.019)	-0.051*** (0.018)	0.052*** (0.016)	0.064*** (0.017)
3 years after divorce	-0.047** (0.019)	-0.074*** (0.018)	0.035** (0.016)	0.045*** (0.017)
4 years after divorce	-0.051** (0.020)	-0.092*** (0.018)	0.030* (0.016)	0.032* (0.017)
5 years after divorce	-0.063*** (0.020)	-0.100*** (0.019)	0.022 (0.016)	0.015 (0.017)
More than 5 years after divorce	-0.082*** (0.022)	-0.121*** (0.020)	0.006 (0.017)	-0.016 (0.018)
Observations	36,119	53,308	36,119	53,308
Number of individuals	1,262	1,734	1,262	1,734
Year fixed-effects	YES	YES	YES	YES
Country of residence fixed-effects	YES	YES	YES	YES

Note: Standard errors clustered at the individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1. See the Appendix for the full list of controls included in the specifications.

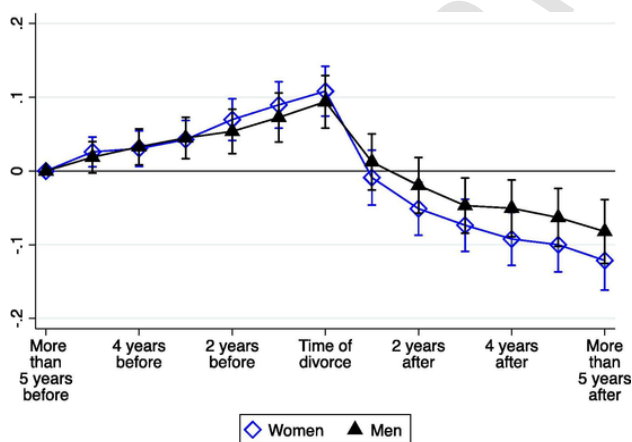
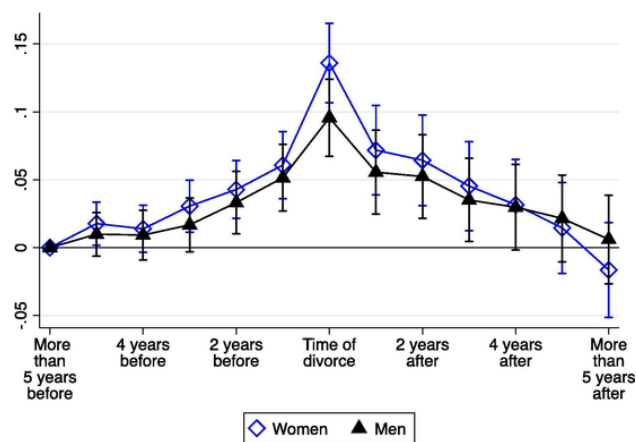


Fig. 5. Stress trajectory before and after the divorce, by gender. Note: 95% confidence intervals are reported.



Note: 95% confidence intervals are reported.

Fig. 6. Financial hardship trajectory before and after the divorce, by gender. Note: 95% confidence intervals are reported.

tion episodes and then decrease, suggesting that the financial situation of divorcees improves and it fills the gap with the baseline period within 4 years. In particular for women, this pattern indicates the difficulties experienced by those entering the labour market to find a job to maintain their standard of living before the divorce and afford expenses related to their children, as suggested by Cavapozzi et al. (2019).

In the period before divorce happiness remains overall stable for men and slightly decreases for women. Instead, stress and financial hardship increase. However, we should notice that the fall in the probability of being under stress after divorce is much steeper than its rise until the year of divorce. Although the increase in the likelihood of experiencing stress in the period before divorcing is significant, it is quantitatively small as compared with the decrease registered after divorce. We argue that the probability of being in the happiest period in life might be more sensible to wider variations in stress, which are registered only after divorce. Analogously, the increase in the probability of experiencing financial hardship in the period before divorce is rather limited. This might explain why we do not find sizeable reduction in happiness. In the year of divorce we observe a marked increase in the occurrence of financial hardship, which might be counterbalanced by the contemporaneous reduction in stress and resulting in a stable probability of being happy.

As for the period following divorce, the evidence we collect suggests that the increase in the probability of being happy found in Fig. 4 matches the contemporaneous lower probability of experiencing stress episodes and the improvement in the financial situation with respect to year of divorce.⁷

4. Conclusions

We use retrospective data to analyze how happiness varies with divorce in a sample representative of the population of the individuals aged 50 or over living in thirteen European countries. Our data are based on the life-history interviews collected by SHARELIFE in the years 2008/9. Life-history data have been restructured in a retrospective longitudinal dataset (the “Job Episode Panel”) to which each re-

⁷ We replicated our whole empirical exercise by dropping France, which is characterized by an outstanding incidence of happiness periods, as documented by Fig. 1. Our results are confirmed. Further, we consider a more parsimonious set of divorce dummies to limit sample selection issues related with the length of both the previous partnership and the observation period after divorce. We estimate the variations of our outcomes of interest between three years or more before the divorce and three years or more after it. Again our results are confirmed.

spontaneous contributes with as many observations as her years of age at the time of the SHARELIFE interview. These data allow to reconstruct for each year of respondents' life the main events with respect to a number of well-being dimensions, including family relationships, fertility, employment, health and accommodation. In addition, SHARELIFE data allow to observe the full migration histories of respondents and control for cross-country heterogeneity with respect to cultural norms and societal values that might affect both divorce decisions and well-

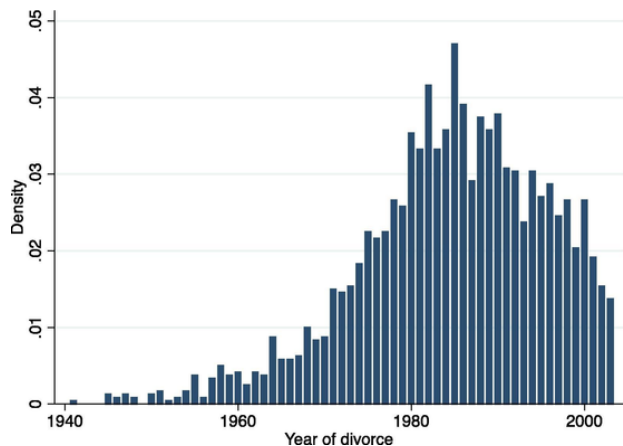


Fig. A1. Distribution of the year of divorce.

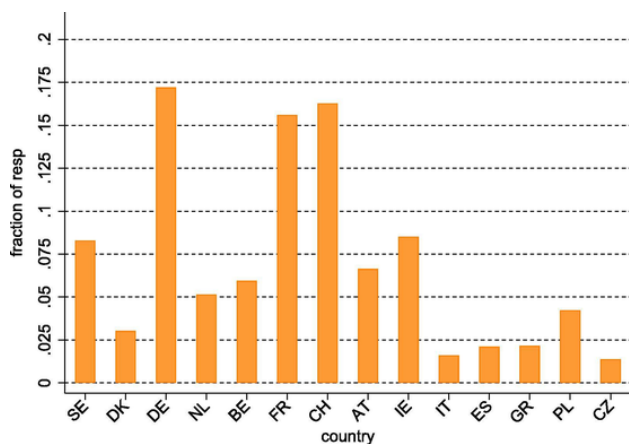


Fig. A2. Proportion of respondents born in a country different from their current country of residence.

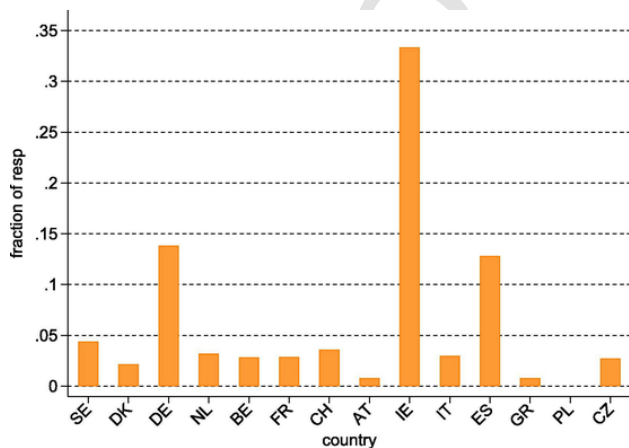


Fig. A3. Proportion of divorces in a country different from the current country of residence of respondent.

Table A1
Probability of being in the happiest period in life: variation in the year of divorce. Fixed-effects linear probability models estimated in the full sample.

	Men	Women
	(1)	(2)
Year of divorce	-0.032*** (0.010)	-0.045*** (0.008)
Age	-0.003*** (0.001)	-0.002* (0.001)
Age squared	0.000 (0.000)	0.000*** (0.000)
Cohabiting	0.138*** (0.012)	0.159*** (0.008)
New cohabitation starts	0.009 (0.008)	-0.001 (0.008)
Year of remarriage	0.060*** (0.014)	0.071*** (0.015)
Year of partner death	0.024** (0.010)	0.019*** (0.005)
Number of children	0.005 (0.004)	0.010*** (0.003)
Age of the youngest child	-0.001 (0.000)	-0.001** (0.000)
Unemployment spell	-0.002 (0.011)	-0.004 (0.011)
Working in agriculture, hunting, forestry, fishing	0.027*** (0.009)	-0.001 (0.010)
Working in mining and quarrying	0.016 (0.018)	-0.060 (0.038)
Working in manufacturing	0.014** (0.007)	-0.007 (0.007)
Working in electricity, gas and water supply	0.023* (0.013)	-0.001 (0.028)
Working in construction	0.035*** (0.008)	0.001 (0.019)
Working in wholesale and retail trade	0.018** (0.009)	0.004 (0.007)
Working in hotels and restaurants	0.056*** (0.019)	-0.026** (0.010)
Working in transport, storage and communication	0.033*** (0.011)	-0.004 (0.017)
Working in financial intermediation	0.033** (0.016)	0.003 (0.017)
Working in real estate, renting and business activities	-0.012 (0.027)	0.033 (0.027)
Working in public administration and defence	0.012 (0.010)	0.001 (0.010)
Working in education	0.019 (0.015)	-0.001 (0.009)
Working in health and social work	0.018 (0.013)	-0.005 (0.007)
Working in other sectors	0.019** (0.009)	-0.001 (0.007)
Being retired	0.027*** (0.005)	0.005 (0.005)
Dispossessed in the year	-0.039 (0.027)	0.009 (0.041)
Experienced cancer	0.038 (0.043)	0.042 (0.029)
Experienced arthritis	-0.001 (0.018)	-0.013 (0.011)

Table A1 (Continued)

	Men	Women
	(1)	(2)
Experienced asthma	0.031 (0.023)	-0.023 (0.021)
Experienced lung problems	-0.011 (0.015)	0.006 (0.025)
Experienced diabetes	0.017 (0.033)	-0.034 (0.031)
Experienced stroke	-0.123 (0.135)	0.029 (0.068)
Experienced high blood cholesterol	0.038** (0.017)	-0.060* (0.035)
Experienced high blood pressure	0.022 (0.015)	-0.006 (0.013)
Experienced heart attack	-0.037 (0.030)	0.012 (0.024)
Observations	346,570	473,905
Number of individuals	11,324	14,573
Year fixed-effects	YES	YES
Country of residence fixed-effects	YES	YES

Note: Standard errors clustered at individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

being evaluations and act as confounding factors in our relationship of interest.

We first assess the variation in well-being associated with year of divorce and find that is significantly negative for both men and women. Then, we focus on divorcees and estimate their well-being profile before and after divorce. We show that the well-being of men and women after divorce is significantly higher than in the years preceding it. This pattern indicates that divorcees after divorce experience a relief from the psychosocial burden generated by the family dissolution process. In order to understand the mechanism underlying this pattern, we consider stress and financial hardship as possible channels contributing to our relationship of interest. Happiness is a comprehensive measure of well-being summarizing various dimensions, including mental health and financial status. We posit that happiness variations associated with divorce should find a counterpart in contemporaneous stress and financial hardship dynamics. Our findings show that the improvement in happiness after divorce found for men and women can be at least partially explained by a contemporaneous decrease in stress and financial hardship.

These findings point to the importance of developing policies designed to protect the well-being of individuals over the life course and that might turn out to be important mitigators of the adverse effects of a family dissolution process. On the one hand, the onset of stressful periods can be mitigated by the presence of inclusive childcare services that help individuals, in particular women, to combine labor market activities with family responsibilities (Baker et al., 2008). On the other hand, regardless of the presence of alimonies, individuals who need to offset the income loss following the divorce should be supported by the supply of formal training activities and vocational courses designed to improve their human capital and obtain a more successful match with labor market activities (Booth and Bryan, 2005).

Appendix A.

Figs. A1, A2, A3.
Tables A1, A2, A3.

Table A2

Probability of being in the happiest period in life: variations around the year of divorce. Fixed-effects linear probability models estimated in the sample of divorcees.

	Men	Women
	(1)	(2)
5 years before divorce	-0.013 (0.011)	-0.035*** (0.010)
4 years before divorce	-0.017 (0.012)	-0.042*** (0.012)
3 years before divorce	-0.012 (0.014)	-0.046*** (0.013)
2 years before divorce	-0.007 (0.016)	-0.041*** (0.014)
1 year before divorce	0.002 (0.017)	-0.032** (0.015)
Year of divorce	0.031 (0.020)	0.002 (0.018)
1 year after divorce	0.076*** (0.024)	0.047** (0.021)
2 years after divorce	0.087*** (0.024)	0.054** (0.021)
3 years after divorce	0.092*** (0.024)	0.055** (0.022)
4 years after divorce	0.097*** (0.025)	0.064*** (0.022)
5 years after divorce	0.102*** (0.025)	0.067*** (0.023)
More than 5 years after divorce	0.112*** (0.027)	0.091*** (0.024)
Age	0.004 (0.006)	0.004 (0.003)
Age squared	0.000 (0.000)	-0.000 (0.000)
Cohabiting	0.134*** (0.017)	0.124*** (0.014)
New cohabitation starts	0.018** (0.009)	0.022** (0.009)
Year of remarriage	0.042*** (0.014)	0.056*** (0.015)
Year of partner death	0.055 (0.059)	0.048** (0.021)
Number of children	0.014 (0.012)	-0.001 (0.011)
Age of the youngest child	0.001 (0.001)	-0.003*** (0.001)
Unemployment spell	-0.050 (0.038)	0.000 (0.033)
Working in agriculture, hunting, forestry, fishing	-0.001 (0.052)	0.031 (0.049)
Working in mining and quarrying	-0.109 (0.100)	-0.085 (0.054)
Working in manufacturing	0.032 (0.029)	-0.017 (0.021)
Working in electricity, gas and water supply	0.044 (0.073)	0.082 (0.061)
Working in construction	0.052* (0.031)	0.024 (0.058)
Working in wholesale and retail trade	0.065* (0.037)	0.014 (0.021)
Working in hotels and restaurants	0.152** (0.069)	-0.026 (0.031)

Table A2 (Continued)

	Men	Women
	(1)	(2)
Working in transport, storage and communication	0.077** (0.037)	0.005 (0.040)
Working in financial intermediation	0.028 (0.065)	-0.032 (0.035)
Working in real estate, renting and business activities	0.039 (0.064)	0.146** (0.063)
Working in public administration and defence	0.024 (0.035)	0.036 (0.026)
Working in education	0.062 (0.049)	0.006 (0.026)
Working in health and social work	-0.030 (0.052)	-0.022 (0.019)
Working in other sectors	0.045 (0.028)	0.017 (0.023)
Being retired	0.063*** (0.022)	0.009 (0.017)
Dispossessed in the year	0.055 (0.074)	-0.027 (0.077)
Experienced cancer	-0.275*** (0.070)	0.027 (0.033)
Experienced arthritis	-0.079 (0.049)	-0.002 (0.038)
Experienced asthma	0.113* (0.058)	-0.103* (0.054)
Experienced lung problems	0.027 (0.057)	-0.016 (0.098)
Experienced diabetes	0.209** (0.106)	-0.102 (0.074)
Experienced stroke	-0.063 (0.083)	-0.556*** (0.138)
Experienced high blood cholesterol	-0.128** (0.056)	-0.199*** (0.072)
Experienced high blood pressure	0.171 (0.118)	0.026 (0.035)
Experienced heart attack	-0.083 (0.167)	0.042 (0.072)
Observations	36,119	53,308
Number of individuals	1,262	1,734
Year fixed-effects	YES	YES
Country of residence fixed-effects	YES	YES

Note: Standard errors clustered at the individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

Table A3

Probability of being in the most stressful period in life and in financial hardship: variations around the year of divorce. Fixed-effects linear probability models estimated in the sample of divorcees.

	Being stressed		Being in financial hardship	
	Men	Women	Men	Women
	(1)	(2)	(3)	(4)
5 years before divorce	0.019* (0.011)	0.026** (0.010)	0.010 (0.008)	0.018** (0.008)
4 years before divorce	0.033*** (0.012)	0.030** (0.012)	0.009 (0.009)	0.014 (0.009)
3 years before divorce	0.045*** (0.014)	0.043*** (0.013)	0.017* (0.010)	0.031*** (0.010)
2 years before divorce	0.054*** (0.015)	0.070*** (0.015)	0.033*** (0.012)	0.043*** (0.011)
1 year before divorce	0.073*** (0.017)	0.090*** (0.016)	0.051*** (0.013)	0.061*** (0.013)
Year of divorce	0.094*** (0.018)	0.108*** (0.017)	0.096*** (0.014)	0.136*** (0.015)
1 year after divorce	0.012 (0.019)	-0.009 (0.019)	0.056*** (0.016)	0.072*** (0.017)
2 years after divorce	-0.020 (0.019)	-0.051*** (0.018)	0.052*** (0.016)	0.064*** (0.017)
3 years after divorce	-0.047** (0.019)	-0.074*** (0.018)	0.035** (0.016)	0.045*** (0.017)
4 years after divorce	-0.051** (0.020)	-0.092*** (0.018)	0.030* (0.016)	0.032* (0.017)
5 years after divorce	-0.063*** (0.020)	-0.100*** (0.019)	0.022 (0.016)	0.015 (0.017)
More than 5 years after divorce	-0.082*** (0.022)	-0.121*** (0.020)	0.006 (0.017)	-0.016 (0.018)
Age	0.007 (0.006)	0.020*** (0.003)	-0.005 (0.006)	0.003 (0.003)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.000 (0.000)	-0.000* (0.000)
Cohabiting	-0.027** (0.013)	-0.033*** (0.012)	-0.042*** (0.011)	-0.100*** (0.011)
New cohabitation starts	0.007 (0.010)	0.021** (0.011)	0.034*** (0.009)	0.064*** (0.011)
Year of remarriage	-0.008 (0.014)	-0.026* (0.014)	-0.014 (0.012)	-0.010 (0.015)
Year of partner death	0.241*** (0.069)	0.131*** (0.029)	0.038 (0.032)	0.091*** (0.023)
Number of children	0.014* (0.008)	0.012 (0.010)	0.016 (0.010)	0.032*** (0.010)
Age of the youngest child	0.001 (0.001)	-0.002** (0.001)	-0.000 (0.001)	-0.002*** (0.001)
Unemployment spell	0.112*** (0.038)	0.031 (0.028)	0.169*** (0.046)	0.060** (0.029)
Working in agriculture, hunting, forestry, fishing	-0.001 (0.041)	0.053 (0.045)	-0.061* (0.031)	-0.055 (0.049)
Working in mining and quarrying	0.119 (0.075)	0.286*** (0.109)	-0.042 (0.038)	0.040 (0.078)
Working in manufacturing	0.098*** (0.025)	0.035* (0.019)	-0.019 (0.019)	-0.026 (0.017)

Table A3 (Continued)

	Being stressed		Being in financial hardship	
	Men	Women	Men	Women
	(1)	(2)	(3)	(4)
Working in electricity, gas and water supply	0.081*	-0.078**	-0.038	-0.066
	(0.044)	(0.038)	(0.027)	(0.058)
Working in construction	0.085**	0.028	-0.054**	0.028
	(0.035)	(0.036)	(0.026)	(0.036)
Working in wholesale and retail trade	0.091***	0.056***	-0.005	-0.005
	(0.031)	(0.022)	(0.021)	(0.018)
Working in hotels and restaurants	0.077	0.030	0.043	-0.027
	(0.089)	(0.029)	(0.065)	(0.037)
Working in transport, storage and communication	0.098***	0.081**	-0.002	-0.005
	(0.036)	(0.033)	(0.021)	(0.026)
Working in financial intermediation	0.274***	-0.036	-0.010	-0.044
	(0.096)	(0.038)	(0.030)	(0.035)
Working in real estate, renting and business activities	-0.032	-0.002	-0.003	-0.097**
	(0.060)	(0.055)	(0.032)	(0.048)
Working in public administration and defence	0.065*	-0.004	0.001	-0.014
	(0.034)	(0.024)	(0.017)	(0.025)
Working in education	0.065*	0.043	-0.002	-0.018
	(0.037)	(0.031)	(0.029)	(0.022)
Working in health and social work	0.057	0.015	-0.050	-0.001
	(0.071)	(0.020)	(0.045)	(0.016)
Working in other sectors	0.090***	0.001	0.010	-0.002
	(0.033)	(0.021)	(0.023)	(0.022)
Being retired	-0.024	-0.026	-0.014	-0.006
	(0.019)	(0.016)	(0.013)	(0.015)
Dispossessed in the year	-0.090*	0.262***	0.222	0.172**
	(0.047)	(0.099)	(0.144)	(0.083)
Experienced cancer	0.072*	-0.153	0.049	0.046
	(0.041)	(0.114)	(0.523)	(0.068)
Experienced arthritis	-0.206**	-0.066	-0.015	-0.008
	(0.085)	(0.054)	(0.063)	(0.027)
Experienced asthma	-0.097	0.079	-0.067	-0.061
	(0.066)	(0.059)	(0.044)	(0.074)
Experienced lung problems	-0.009	0.053	-0.167*	-0.014
	(0.074)	(0.058)	(0.088)	(0.131)
Experienced diabetes	0.048**	0.089	0.049	0.226**
	(0.022)	(0.080)	(0.033)	(0.113)
Experienced stroke	0.382***	0.057	0.431**	-0.019
	(0.138)	(0.049)	(0.207)	(0.027)
Experienced high blood cholesterol	-0.093	0.060	0.113	0.036
	(0.082)	(0.083)	(0.086)	(0.089)
Experienced high blood pressure	0.001	0.002	-0.028	0.054
	(0.107)	(0.033)	(0.050)	(0.035)
Experienced heart attack	-0.017	-0.017	0.004	0.042
	(0.053)	(0.094)	(0.064)	(0.085)

Table A3 (Continued)

	Being stressed		Being in financial hardship	
	Men	Women	Men	Women
	(1)	(2)	(3)	(4)
Observations	36,119	53,308	36,119	53,308
Number of individuals	1,262	1,734	1,262	1,734
Year fixed-effects	YES	YES	YES	YES
Country of residence fixed-effects	YES	YES	YES	YES

Note: Standard errors clustered at the individual level in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

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