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Linked generations: child's transition into unemployment and parents' mental well-being

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## **Linked generations: Child's transition into unemployment and parents' mental wellbeing**

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Unemployment has a negative effect on the mental wellbeing of individuals who experience it. The wellbeing of the partners and children of these individuals is also negatively affected by this transition. Little is known, however, on the effect of the transition into unemployment on the mental wellbeing of the parents of unemployed people. This article analyses the association between child's transition into unemployment and parents' minor psychiatric morbidity, using the General Health Questionnaire (GHQ) score as a proxy. Next, the effects of the length of the unemployment spell and the specific pathway into unemployment are investigated. Eventually, the moderating role of the national level of unemployment is also explored. Data from the British Household Panel Survey and Understanding Society are used. The results of the analyses indicate that child's transition into unemployment has a small, statistically significant, negative effect on mothers' mental wellbeing, whereas the effect on fathers' distress is negligible. Next, the association between mother's mental wellbeing and child's unemployment does not vary by the duration of the unemployment spell, or by the specific path into unemployment (from employment, studentship or other inactive status). Differently, the negative effect of child's unemployment on mother's wellbeing is larger at higher levels of unemployment at the country level.

### **Keywords**

intergenerational relations; linked lives; mental wellbeing; unemployment

### **Introduction**

The linked lives approach has attracted increasing attention in recent sociological and demographic research (Elder, Johnson and Crosnoe, 2003). Studying how the life course of one family generation affects the life events and wellbeing of other generations has proven an important perspective, particularly when explaining phenomena such as individuals' reproductive behaviour, partnership and educational choices or, at a different level, the unequal distribution of economic wellbeing and its transmission (Fingerman *et al.* 2012; Gilligan, Karraker and Jasper 2018). Adopting this approach may be useful also when focusing on the association between children's labour market career and the mental wellbeing of their parents.

Previous studies have consistently documented that job loss has significant short- and long-term negative consequences on individuals' wellbeing, in terms of economic resources (Gangl, 2006), physical health (Kasl and Jones, 2000) and mental health (McKee-Ryan *et al.*, 2005; Murphy and Athanasou, 1999; Young, 2012). Available empirical evidence suggests that the transition from the

status of employed into that of unemployed<sup>1</sup> has a negative impact not only on the mental health and subjective wellbeing of the individual who experiences it, but also on cohabiting family members. In particular, a number of studies has focused on the consequences of job loss on dependent children and partners (Ström, 2003; Baranowska-Rataj and Strandh, 2021). However, to the best of our knowledge, there are no previous studies focusing specifically on the consequences that job loss, and more in general the transition into unemployment, may have on the mental wellbeing of the members of the older generation, i.e. the parents of the children experiencing this transition<sup>2</sup>. This neglect is particularly relevant. As a matter of fact, it has been documented that adult children's life course events continue to influence parents' mental wellbeing as they age, and that negative transitions have detrimental effects<sup>3</sup> on parents' mental wellbeing (Pillemer and Suitor, 1991; Knoester, 2003; Nomaguchi and Milkie, 2020; Tosi, 2020).

The main aim of the present study is to establish the specific sociological phenomenon (Merton, 1987) that mothers' and fathers' mental wellbeing is affected by young adult children's transition into unemployment. In other words, our main goal is to document that, also for transition into unemployment, as for other child's life course transitions, we observe an effect on parents' wellbeing. This will provide further evidence on the extent to which children's life course affect parents' wellbeing and thus on the relevance of the linked lives approach. Next, we will also investigate two additional dimensions of the association between parents' mental wellbeing and child's transition into unemployment: (i) the association between the spell of child's unemployment and parents' mental wellbeing, investigating if and to what extent the child's permanence in a status of unemployment can further harm (or not) parents' wellbeing (Harrison, 1976); (ii) the association between parent's wellbeing and the specific pathway into unemployment. In particular we distinguish, among those young adult children who have transitioned into unemployment, between those who came from employment, from studentship or from other inactive status (as suggested for example by Young, 2012: p. 611 and Atkinson and Micklewright, 1991). Together with these aspects, we also explore the extent to which the (potential) effect of unemployment varies depending on the period-specific economic context. In particular, we analyse the moderating effect of the level of unemployment at the national level on the relation between child's transition into unemployment and parents' distress.

The results of our analyses, which utilize data from the British Household Panel Survey and Understanding Society survey, suggest that children's transition into unemployment negatively influences parents' mental wellbeing; in particular, it significantly increases mothers' non-psychotic minor psychiatric disorders, whereas the estimate of the effect on fathers' distress is negligible and not statistically significant. It is also documented that this effect increases at higher levels of unemployment in the country. On the other hand, we do not find evidence that the negative effect

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<sup>1</sup> In the present paper we will utilize "job loss" and "transition from employment into unemployment" to refer specifically to the situation where an individual loses own job and remains in the labor force in search of another job (i.e. unemployed). Whereas, we will utilize "transition into unemployment" to refer to the more general situation where an individual moves from any type of status - including out of the labor force - into one where s/he is not in paid work and but is actively looking for a job (i.e. unemployed).

<sup>2</sup> It is worth noting, however, that there is previous research that takes into consideration children's unemployment as a control variable (e.g. Tosi and Grundy, 2018) or that includes children's job loss as one among many different possible negative transitions in offspring's life course having negative effects on parents' wellbeing (Knoester, 2003; Milkie, Bierman and Schieman, 2008).

<sup>3</sup> For sake of simplicity, throughout the manuscript, and in particular when reporting results from previous studies, we will use the term "effect" as a synonymous with "association" (Bernardi, Chakhaia and Leopold, 2018). This does not necessarily imply any causal interpretation when commenting the findings.

on mother's mental wellbeing significantly varies with increasing duration of the time spent in unemployment. Finally, our results suggest that child's transition into unemployment is always associated with a negative effect on mother's mental wellbeing, regardless of their previous status (i.e. employed, in education or other inactive status).

## **2. The negative consequences of unemployment on individual's mental wellbeing**

Social scientists have devoted considerable attention to the economic consequences of losing a job (Brand, 2015). Yet the transition into unemployment has broader implications than income loss (Korpi, 2001; Heggebø and Elstad, 2018). These are usually referred to as nonpecuniary costs of job loss (Winkelmann and Winkelmann, 1998; Burgard, Brand and House, 2007; Young, 2012; Knabe, Schöb and Weimann, 2016). Among these costs, individual's mental wellbeing has been the focus of a number of studies: it has been argued that the experience of unemployment significantly affects individual's feeling of security, self-confidence, sense of failure and, ultimately, her identity (Clark, 2003; McKee-Ryan *et al.*, 2005; Smith, 2006; Young, 2012).

The analysis of the link between job loss and mental wellbeing is based on the idea that employment serves a panoply of functions, with relevant latent consequences for individual's psychological wellbeing; thus, losing a job can impair individual's mental health and psychological functioning (Jahoda, 1981; Paul and Moser, 2009). The relevance of the effects of unemployment on the psychological self-functioning are widely recognized in the psychological literature, that defines job loss as a "psycho-social transition" (Parkes, 1971), underscoring different mechanisms through which this transition affects mental wellbeing. According to Jahoda's latent deprivation model (1982) unemployment affects wellbeing by preventing the fulfilment of five fundamental needs: (i) time structure; (ii) social contacts; (iii) collective purpose; (iv) status; (v) activity. Differently from the latent deprivation model, Fryer (1986) suggested utilizing the agency theory to explain the psychological impact of unemployment. Thus, according to Fryer, the negative effect of unemployment would be connected to the fact that the unemployed individual feels a lack of autonomy and mastery in fulfilling her needs.

At a macro level, existing literature indicates that economic conditions have an important moderating role in the relation between the status of unemployment and its effect on individual's mental wellbeing (Oesch and Lipps, 2013). On the one hand, it has been suggested that the experience of job loss is likely to be more harmful when a job is a rare commodity (Jahoda, Lazarsfeld and Zeisel, 1971): in times of high-unemployment, a job is a highly valuable good, and it is exactly in these periods that people is more concerned with joblessness and hence unemployment is expected to hit harder individual's wellbeing. On the other hand, other scholars have argued that the most damaging consequences of unemployment are connected with the social stigma associated with joblessness (Blanchard, 1988). According to this perspective, the higher the number of people employed, the stronger the negative effect of not having a job on the individual wellbeing: as employment becomes the standard condition, unemployment makes the individual feel particularly deprived (Heggebø and Elstad, 2018).

While the association between job loss and the unemployed individual's, their partners and children's mental wellbeing has been largely studied in previous research, to the best of our knowledge no previous study specifically focused on the role that this transition may have in affecting the psychological wellbeing of the parents of the individual who loses her own job. This is

a topic of growing scientific and policy relevance in contemporary developed societies in which the importance of mental wellbeing condition is increasing, together with the quota of young adults who - following recent economic downturns associated with the Great Recession or the pandemic crisis - are experiencing a transition into unemployment.

### **3. Child's life course and parents' mental wellbeing**

Research on intergenerational relations has shown that parents' involvement in children's life extends well beyond childhood, adolescence and nest leaving (Elder, Johnson and Crosnoe, 2003; Hay, Fingerman and Lefkowitz, 2007). Parents and children live linked lives and represent a "convoy" of interpersonal relations moving across time: not only their respective life courses intersect repeatedly, but they also mutually affect each other; it can be expected, therefore, that also parents' mental wellbeing is affected by the events of children's life course (Antonucci *et al.*, 2011; Fingerman *et al.* 2012; Kalmijin and De Graaf, 2012). This association may be driven by multiple micro-level social mechanisms: (i) a child's negative situation may affect parents' mental wellbeing through emotional contagion and empathy, increasing parents' worries (Knoester, 2003); (ii) parents may feel responsible for the unsuccessful life course transitions of their children, experiencing a sense of failure and frustration (Birditt, Fingerman and Zarit, 2010); (iii) parent-child contacts may become more sporadic and, more in general, intergenerational relations may become more tense; (iv) children may go back, being economic dependent from the support of their parents family of origin. Both these latter circumstances have been found to have negative consequences on parents' mental wellbeing (Huo *et al.*, 2019; Lowe and Arnett, 2020).

Previous research, even if not directly and specifically assessing the role of children's transition into unemployment on parents' mental wellbeing, provides some indirect evidence on this relation. Empirically, it has been shown that parents of children with more problems (among which "difficulty in finding or keeping a job", unemployment or, more generally, work-related problems) report lower psychological wellbeing (more negative affect, less positive affect, less self-acceptance, higher levels of stress or depression) and poorer quality of parent-child relationship than parents of less problematic children (Pillemer and Sutor, 1991; Greenfield and Marks, 2006; Fingerman *et al.*, 2012). Similarly, other studies - that utilize longitudinal data and focus on children's life course transitions - show that a higher number of children negative events (among which "becoming unemployed") increases parents' concerns and mental distress (Knoester, 2003; Bierman and Milkie, 2008). In a four-years longitudinal study, Milkie, Bierman and Schieman (2008) have found that two children's life course events in particular – i.e. physical or mental illness and transition into unemployment – negatively affect parents' mental distress and wellbeing, even if the significance and size of the effects vary across social groups (i.e. race and gender). Tosi (2020) documents that the return to parental home lowers the mental wellbeing of parents, but more so when the "boomerang child" is unemployed. This empirical evidence corroborates what theoretically prescribed by the linked lives approach.

Despite these findings, it is worth noting some limitations of existing studies. First, generally these analyses examine unemployment as one among many possible children's negative transitions that affect parental mental wellbeing, often by including the transition into unemployment in an aggregate measure of "negative life course events". Second, a large part of previous studies utilizes cross-sectional data and/or data from surveys conducted in the United States (which has quite

specific characteristics in terms of job mobility, models and patterns of intergenerational relations and their intersection with different racial groups). Next, even those studies which have taken into consideration children's transition into unemployment, usually do not investigate the extent to which different durations of the period spent into unemployment and/or different paths to unemployment have a heterogeneous effect on parent's distress.

As stated above, the main goal of the present paper is to provide additional empirical evidence in order to establish the sociological phenomenon: that child's transition into unemployment affects parents' mental wellbeing. Results from previous studies allow us to formulate two main hypotheses to be tested. The first is about the existence and direction of the effect: we hypothesize that when a child transits into unemployment, the parents' mental wellbeing is significantly affected and, in particular, we expect it to worsen (*H1*). Next, in line with most previous studies on the effect of other child's transitions and, in particular, with the arguments and findings from analyses considering child's unemployment and parental mental health (e.g. Knoester, 2003; Milkie, Bierman and Schieman, 2008), we expect that parent's gender has an important role in shaping how linked lives mechanisms operate and the extent to which children's life course events impact on parent's wellbeing. In particular, we expect mothers to be more sensitive to negative events in children's life course and, thus, to experience more adverse effects when a child transit into unemployment. This expectation is derived from arguments and results reported by various previous studies. Firstly, previous literature suggests that mothers have a more central and relevant kin-keeping role than fathers (Rossi and Rossi 1990). In turn this higher salience and intensity of mother-child relations translate into the fact that child's life course events have a different impact on mothers than on fathers. This argument is corroborated by a plethora of results from empirical studies adopting linked-life course approach (Thompson and Walker, 1989; Rossi and Rossi, 1990; Umberson, 1992; Whelan, 1994; Putney and Bengtson, 2003; Helgeson, 2011; Albertini, Gähler and Härkönen, 2018). Moreover, gender related socialization processes, along with physiological differences between the biological sexes biological - such as mechanisms connected with stress hormone regulation - are likely to increase women's vulnerability to depression and psychological distress when facing negative events and stressful experiences (Ruble *et al.* 1993; Dedovic *et al.*, 2009; Bale and Epperson, 2015). In line with this literature, therefore, our expectation is that the child's transition into unemployment is more consequential for mother's than fathers' mental wellbeing (*H2*).

Besides these two hypotheses, which are grounded into evidence emerging from previous studies on the same or similar topics, we formulate some research questions to shed light on further nuances of the relation between children's transition into unemployment and parents' mental wellbeing. First, we ask if and how the hypothesized negative effect of child's unemployment varies in relation with macro-economic conditions and, in particular, with the level of unemployment at the national level. Next, we explore if, and to what extent, the effect on parents' distress changes with increasing duration of the unemployment status. It has been suggested that the permanence of an individual in the status of unemployment might have cumulative negative effects on her mental wellbeing: the longer the duration of unemployment, the more the individual will be socially isolated and "trapped" in a harmful condition, developing feelings of inferiority and losing self-confidence (Hiswåls *et al.*, 2017). On the other hand, it has also been hypothesized that the unemployed individual gets acquainted both psychologically and behaviourally to her condition: "one adapts to stressor over time, and thus shows fewer effects with increased duration of exposure" (Cohen, Murphy and Prather, 2019: p. 586). These opposing arguments have been formulated while

referring to the effect of unemployment on the unemployed individual herself; here we apply them to our study by posing the question if the number of consecutive years a child spends in unemployment affects parents' mental wellbeing.

A third question we put forward, and that adds to previous studies, is whether different pathways into unemployment are differently associated to parents' mental wellbeing. Losing a job has been found to be consistently associated with a decline in individual's and family members' psychological wellbeing (Burgard, Brand and House, 2007; Paul and Moser, 2009). Most of previous theoretical and empirical contributions, however, have not discussed and investigated how transition into unemployment from statuses different than that of employed (i.e. "studentship" or "other out of the labour force") may differ in their effect on the unemployed individual, or her parents<sup>4</sup>. Differently from job loss, for instance, the transition from "out of the labour force" to "unemployment" may signal a renovated optimism after an economic recession, or a re-entry after a long break, and may be thus have a different effect on the individual and his parents' wellbeing. In our analyses we thus ask: do different pathways into unemployment have a different effect on parents' mental wellbeing?

## **4. Data, variables and methods**

### *4.1 Data*

The empirical analyses are based on data from: (i) 18 waves (1991-2008) of the British Household Panel Survey (BHPS), an annual longitudinal survey of a nationally representative sample of more than 5,000 households; and (ii) seven waves (2009-2016) of the Understanding Society survey (UK Household Longitudinal Study, UKHLS), that sampled approximately 40,000 households. Response rates for the BHPS varied from 65.0% of eligible households in the first wave to 56.5% in the eighteenth wave (Taylor *et al.*, 2010). Response rate for the UKHLS increased from 57.3% in the first wave to 81.5% in wave 7 (Knies, 2017). In 2009 UKHLS substituted the BHPS, with more than 6000 participants to the BHPS joining the new survey. Then, the two surveys share many design features, instruments and questions, allowing their comparability (Lynn and Knies, 2015). In both surveys, children aged >16 years and co-residing with their parent(s) in the first wave in which the household participated to the survey were interviewed, and they were re-interviewed in the following waves of the survey also after exiting the parental home. The pattern of attrition is similar between the two surveys, with the youngest age groups, men, black people and people on lower incomes being more at risk of dropping the survey. A relevant point for the present analysis is that there is not a strong association between attrition rate and respondents' health status (Lynn and Borkowska, 2018). The longitudinal dimension of the surveys allows us to address issues connected with selection and unobserved heterogeneity, when focusing on the effect of child's transition into unemployment on parents' mental wellbeing. Both BHPS and UKHLS were previously utilized to study the psychological effects of unemployment on the unemployed individuals themselves (Clark, 2003; Thomas, Benzeval and Stansfeld, 2005).

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<sup>4</sup> Notable exceptions are Strandh, 2000 and Young, 2012 who have suggested, and partly documented, that different pathways into unemployment may have quite different consequences on the wellbeing of the unemployed individual. But they have not investigated the potentially different effects on the wellbeing of the parents of the unemployed person.



In line with the literature on linked family generations, our unit of analysis is the parent-child dyad. Since parent-child dyads within the same household do not constitute independent observations, we control for this in our analyses by clustering dyads in the same household. We restrict our analyses to dyads in which the child is 30 years old or younger. There are three main reasons to choose this specific threshold: (i) this is the period of the individual's life course when the likelihood of a transition into unemployment tend to be more frequent. Our data confirm this: transitions into unemployment at later ages are a relatively rare phenomenon, poorly captured by our data set which thus has little statistical power in terms of describing these late transitions into unemployment. This lack of statistical power is also connected with the fact that "older" adult children were included in the survey only if they were co-residing with their parents when the family was first included in the survey, thus biasing the sample towards younger children; (ii) falling into unemployment at later ages may have quite different consequences on the individual – who is more likely to have a family of her own and a significant previous working career – than it has at younger ages. Indeed, previous literature has underlined how young adults are more vulnerable to job loss and unemployment, and their trajectories within the world of employment are particularly precarious and complex (Roberts, 1995; Anderson *et al.*, 2002). This difference is likely to be also mirrored in terms of the effect of child's unemployment on parents' mental wellbeing; (iii) restricting the sample to children below 31 years increases the age-homogeneity of the analytic sample, thus focusing on young adults' who experience labour market transitions at similar stages of their and their parents' life courses<sup>5</sup>. After a list-wise deletion of missing observations we obtained an analytical sample of 29,412 parent-child dyads and 83,983 observations (see table 1 for descriptive statistics)<sup>6</sup>.

#### 4.2 Dependent variable

The parent's mental wellbeing status, our dependent variable, was measured using the 12-item General Health Questionnaire score (GHQ). GHQ is a highly reliable and valid instrument to assess minor psychiatric morbidity in the general population (Pevalin, 2000), extensively used in studies on the consequences of unemployment (Banks *et al.*, 1980; McKee-Ryan *et al.*, 2005; Flint *et al.*, 2013). This scale ranges from zero (*the least distressed*) to 36 (*the most distressed*) and is composed by summing 12 different items : (1) concentration; (2) loss of sleep; (3) playing a useful role; (4) capable of making decision; (5) constantly under strain; (6) problem overcoming difficulties; (7) enjoy day-to-day activities; (8) ability to face problems; (9) unhappy or depressed; (10) losing confidence; (11) believe in self-worth; (12) general happiness (Cox, Blaxter and Buckle, 1987). Each of these 12 items is scored on Likert-type scale ranging from zero to three. Despite the fact that these items were sometimes combined in subscales (Griffith and Jones, 2019), the results of a recent meta-analysis suggested that the GHQ is a unidimensional concept and that most of its variance is explained by a general factor (Gnambs and Staufenbiel, 2018). In the following analyses, therefore, we used the GHQ as a general indicator of mental wellbeing<sup>7</sup>.

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<sup>5</sup> In additional analyses, available upon request, performed on the 7,383 dyads in which the child is aged between 31 and 50 years, none of the coefficients associated with child's transition into unemployment, unemployment duration or pathways into unemployment was statistically significant at 10% level.

<sup>6</sup> The number of dyads deleted due to missing information is equal to 6,128, analyses on the characteristics of these omitted cases vs. cases included in the analytical sample do not reveal any particular selection process vis-a-vis main sociodemographic characteristics of parents or children.

<sup>7</sup> For sake of clarity and readability, throughout the manuscript we will use mainly the more general terms of "distress" and "mental health", while only rarely referring to "GHQ" and "minor psychiatric morbidity".

### 4.3 Independent variables

*Child's transition into unemployment.* We identified child's first observed transition into unemployment (1 = *unemployed*; 0 = *other than unemployed*); specifically, we considered children who were in whatever occupational status, but unemployment, in the first wave in which they appeared in the survey - this is usually the first wave in which the household entered the survey or the wave in which they turned 16 years old - and who transitioned into unemployment at a follow up. Both BHPS and UKHLS recorded information on children only if they lived with their parents at the baseline. When a child made the transition into unemployment ( $t_1$ ) we followed the parent-child dyad for all the following panel's waves ( $t_{1+n}$ ) until the child transitioned from unemployment into another occupational status. Therefore, the observations were right-censored, exiting the analytical sample when one of the two members of the parent-child dyad dropped from the survey, or when the child exited her first episode of unemployment into a different status, or when the child gets older than 30 years. Children were observed irrespective of the fact that they leaved (or not) the original parents' household.

*Different durations of child's unemployment.* This variable accounted for the fact that the effect of child's transition into unemployment may vary depending on the duration of the unemployment episode. We defined the number of years since the child's transition into unemployment (0 = *year of child's transition into unemployment*; 1 = *one year since child's transition into unemployment*; 2 = *two or more years since child's transition into unemployment*).

*Pathways into child's unemployment.* We distinguished different pathways of child's transition into unemployment. Hence, we defined three dummy variables, each of these identifying a specific labour market status (*employment*; *studentship*; *other out of the labour force*) from where the child experienced the transition into unemployment. The category *other out of the labour force* comprised people on maternity leave or looking after family or home, long-term sick or disabled, individuals on a government training scheme or unpaid worker in family business.

### 4.4 Analytical strategy

Fixed effects linear regression models were utilized to analyse the extent to which child's transition into unemployment was associated with changes in parents' distress. These models have the advantage of controlling for time-invariant unobserved characteristics that may simultaneously affect children's propensity to transit into unemployment and parents' mental wellbeing.

All models were fitted on the full sample of parent-child dyads and separately on fathers- and mothers-child dyads subsamples. Fitting the model on the two different subsamples, in fact, is in line not only with the expectation that the effect of child's transition into unemployment has a different effect on fathers and mother's mental wellbeing, but also with the possibility that other's individuals' life course events, such as divorce or own unemployment, have as a different impact on male and female respondents.

Three regression models were estimated in order to answer our research questions. In the first Model (M1), we adopted a dyadic and time fixed effects specification to test *H1* and *H2* and to explore the role of the national macro-economic context:

$$Y_{(it)} = \beta_1 U_{(it)} * Unemp\ rate_{(t)} + \beta_2 X'_{(it)} + A_{(i)} + \varepsilon_{(it)} \quad (M1)$$

where  $Y_{(it)}$  represented the outcome of interest (parental mental wellbeing in dyad  $i$  at time  $t$ );  $U_{(it)}$  identified our main independent variable (child's transition into unemployment in dyad  $i$  at time  $t$ );  $unemp\ rate_{(t)}$  was the % of unemployed people (at time  $t$ );  $X'_{(it)}$  was a vector of time-varying characteristics (in dyad  $i$  at time  $t$ ), namely: parent's age (in linear and quadratic form); parent's and child's marital status (1 = *in partnership*; 2 = *never married*; 3 = *separated/divorced*; 4 = *widow(er)*); parent's transition into unemployment; parent's income quintile (from 1 = *the poorest* to 5 = *the richest*);  $A$  accounted for the individual factors that do not vary over time (such as personality and traits), and  $\varepsilon$  was an idiosyncratic error term.

The second Model ( $M2$ ) aimed at exploring if and to what extent the effect of child's transition into unemployment changes with the number of consecutive years spent in this status. Hence, we estimated a time-distributed fixed effects model (Dougherty, 2006):

$$Y_{(it)} = \sum_{p=-s}^s \beta_p F_{(it)}^p * Unemp\ rate_{(t)} + \beta_2 X'_{(it)} + A_{(i)} + \varepsilon_{(it)} \quad (M2)$$

where  $F_{(it)}^p$  accounted for the time passed from the child's transition into unemployment (in dyad  $i$  at time  $t$ ) with  $s$  being the defined maximum horizon forward<sup>8</sup>. If the length of the unemployment spell would not affect parent's mental health wellbeing we would expect the three coefficients to be not significantly different from each other.

Our third Model ( $M3$ ) aimed at exploring the potentially different effect of the different pathways into child's unemployment:

$$Y_{(it)} = \beta_1 U_{(it)} * Unemp\ rate_{(t)} + \beta_2 SU_{(it)} * Unemp\ rate_{(t)} + \beta_3 IU_{(it)} * Unemp\ rate_{(t)} + \beta_4 X'_{(it)} + A_{(i)} + \varepsilon_{(it)} \quad (M3)$$

thus, in this model we identified three specific pathways into unemployment: from employment ( $EU$ ), studentship ( $SU$ ), other out of the labour force ( $IU$ ).

## 5. Results

Our analytical sample is made of relatively young children and parents: average age is, respectively, 20 and 49 years. The number of observed mother-child dyads was slightly higher (59%) than father-child ones. Almost 9% of the cases included a child in unemployment status. The average GHQ score for parents was 11.8 with a standard deviation of 5.7 points. It is worth noting that the statistical power of our sample is limited when it comes to the exploration of some of our research questions, i.e. there are relatively few dyads in which a child is observed experiencing more than 2 consecutive years into unemployment, or a transition from being a student to be unemployed.

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<sup>8</sup> The subscription  $-s$  represents the maximum horizon backward in time-distributed fixed effects models (Dougherty, 2006), which allows to estimate potential anticipation effects on the outcome of interest. We were not interested in these effects, since child's transition into unemployment is likely to be an unexpected event; hence, we estimated our model starting from  $s = 1$ .

**Table 1.** Analytical sample: descriptive statistics, all waves (dyads = 29,412; observations = 83,983).

	% or Mean	SD
<b>Child</b>		
Women	47.7	
<i>Marital status</i>		
In partnership	2.1	
Never married	97.5	
Separated/divorced	0.4	
Widow(er)	0.1	
Age	19.9	3.5
Unemployed	8.9	
<i>Number of consecutive years in unemployment</i>		
1	6.7	
2	1.4	
3/+	0.8	
<i>Pathway into unemployment</i>		
Employment	1.5	
Studentship	2.9	
Other out of the labour force	0.5	
<b>Parent</b>		
Women	59.2	
<i>Marital status</i>		
In partnership	84.2	
Never married	3.1	
Separated/divorced	10.6	
Widow(er)	2.2	
Age	48.8	6.9
<i>Income quintile</i>		
1 (the poorest)	12.4	
2	16.4	
3	19.2	
4	23.6	
5 (the richest)	28.4	
Unemployed	4.1	
Parent's distress (GHQ score)	11.8	5.7
<b>Contextual</b>		
% of population in unemployment	4.34	1.02

In the first step of the analyses (table 2, column 1) we explored the relation between the first observed child's transition into unemployment and changes in parent's mental wellbeing (*H1*). The results reported in the first column indicate that, in line with our first hypothesis, this transition was associated with a statistically significant increase in parent's distress. It is worth noting however that the size of the coefficient for the main effect was relatively small (0.37, 95% c.i. 0.20 - 0.54) if compared with the role of other life course events, such as: parent's own transition into unemployment (1.34, c.i. 1.12 - 1.56) or widowhood (2.42, c.i. 1.87 - 2.98).

When fitting our model separately on the fathers and mothers' subsamples (*H2*) it emerged that the effect observed above was almost exclusively connected with what happens for mother-child dyads: the size of the effect of child's transition into unemployment was very different between fathers and mothers, indeed. While the child becoming unemployed had almost no effect of father's mental wellbeing (0.01, c.i. -0.24 - 0.26) it was instead associated with an increase in mother's distress (0.59, c.i. 0.36 - 0.83). This is in line with our hypothesis and previous empirical research reporting larger effect of children's life course events on mothers than on fathers' wellbeing (e.g. Milkie, Bierman and Schieman, 2008). Interestingly, the results suggest that this effect is stronger at higher levels of unemployment in the country: for each additional percentage point above its mean value,

we observe an increase of 0.23 point (c.i. 0.02 - 0.44) of mothers' average GHQ score, which means a deteriorating mental wellbeing. This finding not only mirrors other studies showing the absence of a mitigating effect of high levels of contextual unemployment, but also goes further, suggesting that in fact unemployment is more harmful when more people are in this situation (Oesch and Lipps, 2013; Jahoda, Lazarsfeld and Zeisel, 1971).

**Table 2.** Relation between child's transition into unemployment and parents' distress (GHQ score), fixed effects, linear regression model coefficients and 95% confidence intervals.

	Parents' distress	Fathers' distress	Mothers' distress
<b>Child's life course events</b>			
Transition into unemployment	0.37*** (0.20 - 0.54)	0.01 (-0.24 - 0.26)	0.59*** (0.36 - 0.83)
Marital status (Ref: in partnership)			
Never married	0.06 (-0.25 - 0.38)	-0.12 (-0.55 - 0.31)	0.21 (-0.24 - 0.65)
Separated/divorced	-0.06 (-1.05 - 0.94)	-0.05 (-1.51 - 1.41)	-0.05 (-1.39 - 1.30)
Widow(er)	2.39 (-0.81 - 5.60)	2.69 (-1.91 - 7.28)	2.21 (-2.17 - 6.59)
<b>Parents' life course events</b>			
Transition into unemployment	1.34*** (1.12 - 1.56)	1.28*** (0.97 - 1.59)	1.37*** (1.06 - 1.68)
Marital status (Ref: in partnership)			
Never married	0.80*** (0.22 - 1.37)	1.13 (-0.37 - 2.64)	0.71** (0.06 - 1.36)
Separated/divorced	0.85*** (0.55 - 1.16)	1.29*** (0.64 - 1.93)	0.73*** (0.37 - 1.10)
Widow(er)	2.42*** (1.87 - 2.98)	3.46*** (2.43 - 4.48)	2.08*** (1.41 - 2.75)
Income quintile (ref.: 1, the poorest)			
2	-0.49*** (-0.65 - -0.33)	-0.78*** (-1.05 - -0.51)	-0.37*** (-0.57 - -0.16)
3	-0.64*** (-0.81 - -0.47)	-0.89*** (-1.15 - -0.62)	-0.52*** (-0.74 - -0.29)
4	-0.75*** (-0.93 - -0.57)	-0.87*** (-1.14 - -0.60)	-0.69*** (-0.94 - -0.44)
5 (the richest)	-0.74*** (-0.94 - -0.54)	-0.99*** (-1.26 - -0.72)	-0.51*** (-0.81 - -0.22)
<b>Other covariates</b>			
% of population in unemployment	0.04 (-0.01 - 0.09)	0.04 (-0.03 - 0.11)	0.03 (-0.03 - 0.10)
% of population in unemployment* child's transition into unemployment	0.09 (-0.07 - 0.24)	-0.14 (-0.37 - 0.09)	0.23** (0.02 - 0.44)
Observations	83,983	34,308	49,675
Number of dyads	29,412	12,036	17,376

Note: Confidence intervals in parentheses; all models control for parent's age (the coefficients range between 0.27 and 0.59 and are significant at 1% level) and age<sup>2</sup> (the coefficient ranges between -0.00 and -0.01 and it is significant at 1% level); the variable % of population in unemployment is centred around its mean; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

In the second step of the analyses, we took into consideration the duration of the unemployment episode, thus exploring if and to what extent a prolonged period in this status had a stronger or a weaker effect on parents' mental wellbeing. Two model specifications were tested. First, we distinguished those children with 1, 2 or 3 consecutive years in unemployment. This specification, however, confirmed the reduced statistical power of our data set when assessing unemployment episodes longer than 2 consecutive years. Thus, we tested a second model, distinguishing only

between: (i) duration of unemployment equal to one year (ii) duration of unemployment equal to or higher than 2 consecutive years.

The results are reported in table 3: first, we confirm that child's transition into unemployment is associated with higher levels of distress for mothers, but not for fathers; second, the negative effect on mother's wellbeing is observed both during the child's first year in unemployment (0.61, c.i. 0.37 - 0.85), but also in the second or following consecutive years in this status (0.48, c.i. 0.07 - 0.89). The coefficients, despite being different in magnitude, are not significantly different from each other and their c.i. largely overlap. There is no evidence, therefore, to argue that the effect on parents' mental wellbeing of children's durations of unemployment higher than one year is weaker or stronger than the effect associated with the first year in unemployment. In other words, we neither do find signs of an accumulation and exacerbation of negative effects of child's unemployment nor, vice versa, we detect a clear decrease in the effect that could be connected with a process of adaptation (Cohen *et al.*, 2019).

**Table 3:** Relation between duration of child's unemployment/pathways into unemployment and parents' distress (GHQ score), fixed effects, linear regression model coefficients and 95% confidence intervals.

	Parents' distress	Fathers' distress	Mothers' distress	Parents' distress	Fathers' distress	Mothers' distress
Child's number of consecutive years in unemployment (ref.: 0)						
1	0.38*** (0.20 - 0.55)	0.01 (-0.24 - 0.26)	0.61*** (0.37 - 0.85)	-	-	-
2/+	0.32** (0.02 - 0.63)	0.07 (-0.38 - 0.52)	0.48** (0.07 - 0.89)	-	-	-
Child's pathways into unemployment						
From employment	-	-	-	0.37** (0.08 - 0.66)	-0.02 (-0.43 - 0.40)	0.61*** (0.22 - 1.01)
From education	-	-	-	0.35*** (0.12 - 0.59)	0.01 (-0.33 - 0.35)	0.56*** (0.24 - 0.89)
From out of the labour force	-	-	-	0.47* (-0.09 - 1.03)	0.16 (-0.67 - 0.99)	0.70* (-0.04 - 1.45)
Parent's age	0.45*** (0.32 - 0.57)	0.26*** (0.09 - 0.44)	0.61*** (0.43 - 0.80)	0.44*** (0.32 - 0.57)	0.27*** (0.09 - 0.44)	0.61*** (0.42 - 0.79)
Parent's marital status (ref.: in partnership)						
Never married	0.80*** (0.22 - 1.37)	1.13 (-0.38 - 2.63)	0.71** (0.06 - 1.36)	0.80*** (0.23 - 1.37)	1.13 (-0.38 - 2.63)	0.71** (0.06 - 1.36)
Separated/divorced	0.85*** (0.55 - 1.16)	1.29*** (0.64 - 1.93)	0.73*** (0.37 - 1.10)	0.86*** (0.55 - 1.16)	1.29*** (0.64 - 1.93)	0.74*** (0.38 - 1.10)
Widow(er)	2.42*** (1.87 - 2.98)	3.46*** (2.43 - 4.48)	2.08*** (1.41 - 2.75)	2.44*** (1.88 - 2.99)	3.45*** (2.42 - 4.47)	2.10*** (1.43 - 2.77)
Child's marital status (ref.: in partnership)						
Never married	0.06 (-0.25 - 0.38)	-0.12 (-0.55 - 0.31)	0.21 (-0.24 - 0.65)	0.06 (-0.25 - 0.38)	-0.12 (-0.55 - 0.31)	0.21 (-0.24 - 0.65)
Separated/divorced	-0.06 (-1.05 - 0.94)	-0.06 (-1.51 - 1.40)	-0.05 (-1.40 - 1.29)	-0.06 (-1.05 - 0.94)	-0.05 (-1.51 - 1.41)	-0.05 (-1.40 - 1.29)
Widow(er)	2.39 (-0.81 - 5.60)	2.68 (-1.91 - 7.28)	2.21 (-2.17 - 6.59)	2.39 (-0.82 - 5.59)	2.69 (-1.91 - 7.28)	2.20 (-2.18 - 6.58)
Parent's transition into unemployment	1.34*** (1.12 - 1.56)	1.28*** (0.97 - 1.59)	1.37*** (1.06 - 1.68)	1.34*** (1.12 - 1.56)	1.28*** (0.97 - 1.59)	1.36*** (1.05 - 1.67)
Income quintile (ref.: 1, the poorest)						
2	-0.49*** (-0.65 - -0.33)	-0.78*** (-1.05 - -0.51)	-0.37*** (-0.57 - -0.17)	-0.49*** (-0.65 - -0.33)	-0.79*** (-1.05 - -0.52)	-0.37*** (-0.57 - -0.17)
3	-0.64*** (-0.81 - -0.47)	-0.88*** (-1.15 - -0.62)	-0.52*** (-0.74 - -0.29)	-0.64*** (-0.81 - -0.47)	-0.89*** (-1.16 - -0.62)	-0.51*** (-0.74 - -0.29)
4	-0.75***	-0.87***	-0.69***	-0.75***	-0.87***	-0.69***

5 (the richest)	(-0.93 - -0.57) -0.74***	(-1.13 - -0.60) -0.99***	(-0.94 - -0.44) -0.51***	(-0.93 - -0.57) -0.74***	(-1.14 - -0.60) -0.99***	(-0.94 - -0.44) -0.51***
% of population in unemployment	(-0.94 - -0.54) 0.04	(-1.26 - -0.71) 0.04	(-0.81 - -0.22) 0.03	(-0.94 - -0.54) 0.04	(-1.26 - -0.72) 0.05	(-0.81 - -0.22) 0.03
% of population in unemployment * child's number of consecutive years in unemployment: 1	(-0.01 - 0.09) 0.09	(-0.03 - 0.11) -0.16	(-0.03 - 0.10) 0.25**	(-0.01 - 0.09) -	(-0.02 - 0.11) -	(-0.03 - 0.10) -
% of population in unemployment * child's number of consecutive years in unemployment: 2/+	(-0.08 - 0.26) 0.05	(-0.41 - 0.08) -0.00	(0.03 - 0.48) 0.08	- -	- -	- -
% of population in unemployment * child's pathways into unemployment: from employment	(-0.22 - 0.32) -	(-0.40 - 0.39) -	(-0.28 - 0.44) -	0.03 (-0.26 - 0.32)	-0.15 (-0.56 - 0.26)	0.14 (-0.26 - 0.54)
% of population in unemployment * *child's pathways into unemployment: from education	-	-	-	0.05 (-0.19 - 0.29)	-0.28 (-0.63 - 0.06)	0.26 (-0.06 - 0.58)
% of population in unemployment * *child's pathways into unemployment: from other out of the labour force	-	-	-	0.53* (-0.01 - 1.07)	-0.31 (-1.12 - 0.51)	1.02*** (0.30 - 1.74)
Observations	83,983	34,308	49,675	83,983	34,308	49,675
R-squared	0.01	0.01	0.01	0.01	0.01	0.01
Number of parent-child dyads	29,412	12,036	17,376	29,412	12,036	17,376

*Note.* Confidence intervals in parentheses; all models control for parent's age (the coefficient ranges between -0.00 and -0.01 and it is significant at 1% level); the variable % of population in unemployment is centred around its mean; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



Existing empirical research has consistently shown that, also considering different socio-economic and national contexts, job loss is associated with negative consequences on several dimensions of individual's wellbeing. However, it has also been argued, and partly documented, that different pathways into unemployment may have quite different consequences (Strandh, 2000; Young, 2012). In the last step of the analyses we investigated the extent to which this heterogeneity does exist also in relation to the consequences of child's unemployment on parents' mental wellbeing.

Table 3 reports the results of a model that singled out the effect of different child's pathways into unemployment, in particular, we distinguished transitions from (i) employment, (ii) studentship, (iii) other out of the labour force.

All the three transitions were associated with a (small) increase in mothers' GHQ score, thus indicating a worsening of her mental wellbeing. All the three coefficients are positive, even if it should be noted that the confidence intervals of the estimated values are relatively large, particularly for the transition from studentship into unemployment. This latter coefficient is not statistically significant at the standard 5% level indeed. Most importantly, differently from what has been suggested elsewhere (e.g. Strandh, 2000; Young, 2012), these results do not provide consistent evidence that different paths into unemployment have significantly different effects on mother's mental wellbeing.

## **6. Sensitivity analyses**

As explained above, a number of methodological choices were made in terms of sample selection, variables operationalization and specification of the regression model. In order to test the robustness of our results, we have performed several sensitivity tests.

First, in selecting the analytical sample we right-censored observations when the child exits the first observed spell of unemployment; by doing so, we were able to rule out from our analyses the potential confounding scarring effect of unemployment on parent's mental wellbeing. At the same time, this choice led to a reduction in the number of observations available for the analyses. As a first robustness check, therefore, we re-ran our models without right-censoring dyads at child's exit from unemployment. The results were unchanged.

Second, as argued above, there are relevant arguments in favour of limiting our analyses to those dyads in which children are aged 30 years or younger. Nevertheless, besides running our regression models also on the subsample of dyads in which children are aged between 31 and 50 years (see footnote 5), we performed the analyses on the entire sample, thus including all observations independently of child's age. The results were in line with those reported above.

A third important caveat to the results reported above is that while we tested if the effect of child's transition into unemployment varied according to parent's gender, we did not control for potential variation across child's gender. As suggested by a number of studies, the specific combination of parent and child's gender is likely to moderate, in different ways, the links between family generations (see for instance the argument and review developed by Knoester, 2003). Therefore, we re-estimated our regression models on four different subsamples, distinguishing all the possible combinations between parents and children's gender. The results were consistent with the ones reported in the main text: the coefficients for both daughters and sons' transition into unemployment were small and not statistically significant when looking at fathers' distress. On the

opposite, the negative effect on mother's mental wellbeing was statistically significant irrespective of the child's gender. The size of the coefficient was slightly higher for daughters, but not statistically different from that estimated for sons' transition into unemployment (daughters: 0.75, c.i. 0.38 - 1.13; sons: 0.46, c.i. 0.16 - 0.77).

Next, besides clustering our observations into dyads and households, we also tested the relevance of multiplicative effects of siblings' unemployment by introducing an interaction term between the transition into unemployment of the specific child considered in the dyad and the unemployment status of any of her siblings. The main results were unchanged and the interaction term was not statistically significant.

Finally, it is important to recognize that, even if fixed effects account for time constant unobserved characteristics, the results reported above can apply to a different extent to parents' who have different underlying psychological conditions. Thus, it may be argued that psychologically vulnerable parents are more sensitive to negative events in children's life course. To test for this potential source of variation we identified those parents who were mentally distressed at baseline. Specifically, we calculated for each parent their average score on GHQ caseness-type scale for all observations preceding the child's transition into unemployment. Next, following previous literature on the topic (Gagné *et al.*, 2021), we selected parents with a mean value equal or higher than 4 as those mentally distressed. Finally, we estimated our regression models separately on the subsamples of "mentally distressed" vs. "not mentally distressed" parents. The results of these sensitivity analysis suggested that (i) the effect of a child's transition into unemployment remains not statistically significant for fathers (both the "mentally distressed" and the "not mentally distressed" ones); (ii) the negative effect on mothers' mental wellbeing is slightly higher for "mentally distressed" mothers, but a statistically significant effect is also observed for the "not mentally distressed" mothers, the two coefficients overlap ("mentally distressed": 0.74, c.i. 0.05 - 1.42; "not mentally distressed": 0.50, c.i. 0.27 - 0.74).

## 7. Discussion

Employment serves a panoply of functions in an individual's adult life (Jahoda, 1981; Fryer, 1986). Previous empirical studies have consistently documented that unemployment has significant negative consequences on unemployed individual's wellbeing, and also on the wellbeing of their children and partners (McKee-Ryan *et al.*, 2005; Murphy and Athanasou, 1999; Young 2012; Ström, 2003; Baranowska-Rataj and Strandh, 2021). Less attention, though, has been paid to the potential consequences that unemployment can have on the older family generation, namely the parents of the unemployed individual. This is a topic of increasing relevance, both because numerous studies have clearly documented the relevance of a linked lives approach to have a thorough understanding of how family dynamics affect the mental wellbeing of their members, and also because young adult children's unemployment is an increasingly common experience in the life of parents in Europe.

Results from some previous analyses, which have considered children's unemployment as a control variable or as one of the many possible negative events taking place in children's life course, suggest that there is a negative effect of this status or transition on the mental wellbeing of parents (Tosi and Grundy, 2018; Knoester, 2003; Milkie, Bierman and Schieman, 2008).

The present study contributes to two different strands of literature. Firstly, we provide additional evidence on the usefulness of adopting a linked-lives course approach when studying the transmission and accumulation of disadvantages across different family generations. Second, we contribute to the literature documenting the (negative) effects of youth unemployment.

Our results indicate that the child's transition into unemployment lowers parental mental wellbeing, being associated with a small but statistically significant increase in parents' distress. Various micro-level social mechanisms may drive these results, e.g.: emotional contagion and empathy between family generations; parents' sense of failure vis-à-vis non-normative/problematic life courses of their children; deterioration of parent-child relations; children's increasing need of parents' economic support. Disentangling these different mechanisms is complicated by the fact that they partly overlap - both along their temporal and social domain dimension - and it is beyond the scope of the present paper, which is limited to documenting the association between children's transition into unemployment and changes in parent's mental wellbeing. At the same time, it is worth noting that, by adopting an analytical strategy based on longitudinal data and fixed-effects regression models, we are able to control this association for unobserved time-constant heterogeneity at individual and dyadic level, so to account for a potentially relevant source of bias.

When unpacking the negative effect of child's unemployment on parent's mental wellbeing, we document that mothers are the most affected from this negative transition in child's life. Conversely, fathers' psychological wellbeing remains practically unaffected by their children's transition into unemployment. This is an interesting difference that confirms some of the findings from research adopting a linked lives approach, which have repeatedly documented a more intense effect of children's life course events on mothers' (vs. fathers') wellbeing (e.g. Milkie, Bierman and Schieman, 2008). There could be a number of potential mechanisms underlying this outcome. On the one side, this may be attributed to gendered social constraints and socialization mechanisms, which push mothers to attribute a greater value to their socio-emotional bonds and nurturing, thus strongly investing in their children's successful life course (Burn, 1996; Ruble *et al.*, 1993). In other words, their different reaction may be the product of gendered norms of accountability which define women as in charge of all those activities concerning the enhancement of others in the family (West and Zimmermann, 1987). Hence, a child's failure - such as that of moving into unemployment - would particularly harm them. On the other side, there may be at play also biological mechanisms; indeed, men may be simply naturally endowed with higher stress response due to the effects of sex hormones, in particular oestrogen, on the central nervous system (Dedovic *et al.*, 2009); this would buffer their negative response to a stressor like their child's transition into unemployment. In general, our results corroborate what emerged from previous studies underlying the gendered nature of linked lives processes, and highlight the specific kin-keeping role of mothers vis-à-vis fathers (Rossi and Rossi, 1990; Amato, 1994; Umberson, 1992). Still, it is worth noting that the documented effect is limited in size when compared with other transitions in mother's own life course: the average increase in mother's GHQ score associated with child's unemployment is equal to 0.59 (c.i. 0.36 - 0.83), which is of moderated magnitude if compared for instance with that associated with mother's own transition into unemployment (1.37, c.i. 1.06 - 1.68) or with the death of her partner (2.08, c.i. 1.41 - 2.75).

Next, we document that, contrary with what may be expected on the basis of the argument that most damaging consequences of unemployment are connected with the social stigma associated with joblessness (Blanchard, 1988), the effect of child's unemployment is larger at higher levels of unemployment in the country.

Besides differences between mothers and fathers, we also explore the extent to which the effect of child's transition into unemployment varies according to, first, the duration of consecutive years spent in unemployment and, second, the specific pathway into unemployment. We were able to document that after two or more consecutive years that the child spends into unemployment we still observe a negative effect on mother's mental wellbeing, and this effect is not statistically different from the one registered during the first year of child's unemployment. Next, we have also shown that all of the three pathways into unemployment that we have explored - from employment, being a student, being in other inactive status - are associated with a worsening psychological condition of mothers. Therefore, the indication that different paths may convey different consequences (Young, 2012; Atkinson and Micklewright, 1991) or the argument that moving into unemployment from a studentship/other inactive status may signal a renovated optimism about the possibility of finding employment are not supported by our empirical findings.

Finally, sensitivity analyses also suggest that the negative psychological effects of child's transition into unemployment may be slightly more pronounced for mothers who were already "mentally distressed" before the event, although our results do not allow to fully rule out (at standard 5% significance level) the null hypothesis that the effect is not different between "mentally distressed" and "not mentally distressed" mothers.

The study has a number of limitations that need to be acknowledged. First and most importantly, despite a relatively rich data set being available, the statistical power of the data is limited when it comes to test very specific hypotheses, such as those connected with length of unemployment spells, pathways into unemployment, role of child's gender and mental conditions of the parent at baseline. In a number of cases the lack of statistical significance of the estimated coefficients is likely to be due to this low statistical power of the sample. Next, unlike much previous studies based on US data, we analysed the association between child's unemployment and parents' mental wellbeing in the framework of a European society. Nevertheless, UK labour market and society has characteristics that make it very different from other European societies. Thus, our results have limited, if any, external validity in terms of explaining the dynamics characterizing other European societies. Also, our dependent variable, even if repeatedly validated in previous studies, represent just one of the many possible dimensions along which individual's mental wellbeing can be measured. Finally, despite panel data and fixed effects models allow us to control for unobserved time-constant individual and dyad's characteristics, still our data and analyses are not able to account for the full set of potential social and genetic confounders affecting the association under analysis.

Despite these limitations, we think that this work contributes to the existing literature in several ways. First, it provides additional empirical evidence on the importance of adopting a linked lives approach when analysing the determinants of individuals' mental wellbeing and the accumulation and transmission of social disadvantage. Secondly, it contributes to expanding our knowledge of the consequences and correlates of family solidarity and intergenerational relations. Finally, it allows exploring the effect of child's transition into unemployment while using longitudinal data that span along a relatively long period of time, across very different macro-economic conditions and also while taking into consideration a relatively homogenous sample of children - i.e. focusing on children aged 30 years or younger.

Several questions arise from the empirical results reported here. In particular, we think that it will be important to further investigate the micro-level social mechanisms that can explain the different effect of child's unemployment on fathers vs. mothers' emotional distress; next, additional analyses

are needed to corroborate our findings about the role of national level of unemployment, length of unemployment spell, specific pathways into unemployment. Most importantly, it would be relevant to replicate these analyses in different institutional contexts to assess how the effect of child's unemployment varies across different welfare regimes and labour market characteristics (Scherer, 2005), and across countries characterized by different patterns of intergenerational relations or historical periods (Albertini and Kohli, 2013).

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