

Marital Disruption and Subjective Well-being: Evidence from an Italian Panel Survey

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Abstract Using data from the panel survey “Family and Social Subjects”, belonging to ISTAT, this paper implements propensity score matching in order to prove that separation reduces individuals’ subjective well-being with respect to several dimensions such as economic and housing conditions. In addition, a marital dissolution increases uncertainty in familiar life.

1 Introduction

Household structures in Italy are changing and evolving. A particular feature of the most recent family patterns is the significant increase in marital breakdowns, which reached in 2009 more than 85,000 separations and 54,000 divorces, with an increase respectively of 5.6% and 7.5% on 2007 [3]. This trend clearly shows the urgent need of studying the implications for both the two partners and their children. For what concerns the economic well-being there is a considerable international literature [1]. Regarding Italian context the finding of a recent Italian national research project [2] and a focus from the National Institute of Statistics (ISTAT) on living conditions of people who lived the marital dissolution [4] confirmed the importance of these aspects and revealed strong gender differences when a monetary measure is considered. This research showed also the relevance of implications on offspring, focusing on their well-being (the children of separated parents tend to be more unsatisfied and show more difficulties in social relations and in scholastic performance). Nevertheless, the literature shows that the subjective well-being is not only related to the economic dimensions (poverty, wealth and income) but also to the mental conditions (depression and happiness)[5] or physical health [8].

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Taking into account the theoretical background, this paper aims at studying more in depth how the former partners' subjective well-being changes after the marital breakdown, monitoring the individual state of confidence [7], regarding not only the economic dimension, but also the familiar, the living conditions and the working situation. In order to address the effect of marital breakdown, we use propensity score matching which applies to panel data to identify the effect of a specific life course choice (divorce or separation) on the outcome of interest (individuals' well-being). It also controls for observable heterogeneity and overcomes problems of selection bias.

2 Data and Methods

The analysis is implemented using data from the 2003 sample survey "Family and Social Subjects", belonging to the Multipurpose Survey Program carried out by ISTAT. The survey is part of a broad International Generations and Gender Program developed by UNECE allowing for comparative analyses. The specific novelty of the panel return carried out at the beginning of 2007, and entitled "Critical aspects in the work life course in a gender perspective", will provide evidence to verify the correspondence between subsequent behaviors. In our analysis, we take into consideration the subsample of individuals that were married at the time of the first interview (2003). The aim of the empirical part is to estimate the consequences of a marital disruption (separation or divorce) occurred between the two waves (from 2003 to 2007) on a set of subjective well-being indicators at the time of the second interview (2007). Hence, the dependent variables of the model are dichotomous responses in 2007 to the set of items listed below:

Outcome: How much control do you feel you will have over the following circumstances in your life in the next three years? (dummy codification in parentheses)

1. Your economic condition (much=1; little=0)
2. Your working and educational status (much=1; little=0)
3. Your housing conditions (much=1; little=0)
4. Your health status (much=1; little=0)
5. Your familiar life (much=1; little=0)

The dependent variables take value 1 if an individual denotes "much" or "some" control for each of the items listed above and 0 otherwise. The use of measures of controls of individual spheres like those listed above are proxies of subjective well-being as suggested in literature [7].

In order to detect the effect of a marital disruption, we are interested in the response of the items measuring subjective well-being in presence or not of a marital disruption between the two waves. We assume that each individual has two potential outcomes: Y_{1i} in the case an individual experimented a marital dissolution between 2003 and 2007 and Y_{0i} in the case he or she did not. The average causal impact of a marital disruption for separated/divorced people is:

$$ATT = E[Y_{1i} - Y_{0i} | T_i = 1] = E[Y_{1i} | T_i = 1] - E[Y_{0i} | T_i = 1],$$

in our case the expected effect of separation/divorce on wellbeing indices for the subset of individuals that experimented marital disruption. In fact, $T_i = 1$ is a binary variable taking value 1 if an individual experimented a divorce or separation and 0 otherwise.

The main problem in causal inference is that $E[Y_{0i} | T_i = 1]$ is not observable, A possible solution to overcome the problem is to replace the expected outcome of the treated group with that of control group, considering $E[Y_{0i} | T_i = 1] = E[Y_{0i} | T_i = 0]$

This assumes that there is no selection bias. However, this assumption is not realistic. Identification of *ATT* is feasible if we condition the expected values on a vector of covariates that summarizes all the differences in treated and control groups. Following Rosenbaum and Rubin [6], a comparison between groups is possible on the basis of a quantity called *propensity score* that is the probability of observing a marital disruption given a vector of covariates X , supposed to affect both the probability of a marital breakdown and the well-being indices. Hence, comparing individuals with close value of propensity score is the same of comparing them on the basis of the vector of covariates. Hence, the quantity that we estimate, in order to remove selection bias, is the following: $ATT = E_{p(X_i)} \{E[Y_{1i} | p(X_i), T_i = 1] - E[Y_{0i} | p(X_i), T_i = 0]\}$

The vector X_i used to estimate $p(X_i)$ came from the first interview and includes the following covariates (categories used in logit regression are reported in parentheses):

the gender of respondents (males vs. females), the age (18-27, 28-37, 38-47, 48-57 vs. 58-65), their educational status and of their father (higher education vs. low), their working position (employed, retired vs. unemployed), the number of children (1,2,3...), the presence of siblings (≥ 1 vs. 0), and geographical dummies (North-East, North-West, South, Centre and Islands).

Furthermore, we control in estimates for the starting level of each of the well-being indicators at the time of the first interview, in order to capture the change occurred with subsequent life course events such as separation or divorce.

Finally, several matching algorithms can be used to estimate *ATT*; in such cases we will have that

$$\hat{ATT} = \frac{1}{N_1} \sum_{i \in \{T_i=1\}} \left[Y_{1i} - \sum_{j \in \{T_j=0\}} w_j Y_{0j} \right]$$

where N_1 indicates the number of units that experienced a marital disruption in the considered time interval; w_j represents a sample weight for control units used in matching procedure. Here, it is useful to implement nearest neighbour matching, consisting in matching each treated unit i with the closest control unit in terms of estimated propensity score.

3 Estimation Results

Results are summarized in table 1. Marital disruption plays a significant role in reducing well-being for a time interval of about three years after the time of the first interview.

Table 1: Propensity score estimates for the effect of marital breakdowns on subjective wellbeing.

| | <i>N. of treated units</i> | <i>N. of control units</i> | <i>ATT</i> | <i>Z statistic</i> |
|---------------------------|----------------------------|----------------------------|------------|--------------------|
| <i>Economic condition</i> | 62 | 6,489 | -.194** | -2.20 |
| <i>Working status</i> | 61 | 5,963 | -.066 | -.78 |
| <i>Housing conditions</i> | 62 | 6,482 | -.129*** | -2.66 |
| <i>Health status</i> | 61 | 6,480 | .049 | .67 |
| <i>Familiar life</i> | 62 | 6,459 | -.258*** | -4.61 |

*** $p < 0.01$; ** $p < 0.05$ * $p < 0.1$.

Divorced or separated individuals are in general less confident in future towards items related to economic and housing conditions and to familiar life. More in details, marital dissolution decreases on average by about 19% the confidence in future economic conditions and by about 13% the perspectives for housing conditions. Results are stronger for the last item, that indicates the expected familiar wellbeing: the percentage of agreement to the item decreases by about 26% for divorced or separated people. Results are not significant for health and working (or educational) status instead.

4 Conclusion

Results included in this survey clearly show as marital breakdown in Italy has a strong impact not only in deprivation indices measuring the loss in economic well-being, but also introduces uncertainty (a form of a low-distress) in the future with respect to housing, income and familiar conditions. These results are obtained comparing individuals with very similar profiles in terms of economic and social characteristics and reducing the effect of selection bias.

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