Family contexts and adolescents' emotional status

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Abstract

Children's living arrangements have become increasingly diverse and complex in recent decades. The share of children residing with two biological married parents has been steadily declining and the proportions of children residing in stepfamilies or in single-parent families are not negligible, even in countries, such as Italy, which only recently are undergoing a transition from traditional to less traditional family behaviours.

Research has shown consistently that growing up in some non-traditional families is, in average, associated with negative consequences for children, in particular, with decreased well-being. The present study explores the effect of family structure (presence of both biological parents, step-families, single-parent families) on different measures of adolescent's emotional status, considering whether this effect is mediated via family resources (parental socio-economic circumstances and parental health). The data come from a national representative survey, conducted in Italy in 2005.

Descriptive analyses showed that teenagers living in non-traditional families, and above all in step-families, experience lower psychological well-being, than teen living in two-biological-parent families, particularly for the mental health component.

At the multivariate level, the negative effect of non-traditional families on adolescent's psychological well-being is significant only for step-families and only for mental health, whereas living in single-parent families has not negative effect. Adolescents' emotional well-being is mainly influenced by parental resources (in particular, health) and their effects seem not mediate, where present, the family structure effects.

1. Introduction

Children's living arrangements have become increasingly diverse and complex in recent decades. The share of children residing with two biological married parents has been steadily declining and the proportions of children residing in stepfamilies or in single-parent families are not negligible, even in countries, such as Italy, which only recently are undergoing a transition from traditional to less traditional family behaviours.

Research has shown consistently that growing up in some non-traditional families may be associated with risky behaviours which may have negative consequences for subsequent life course. For example, children of divorced parents are shown to have lower academic outcomes (Sun and Li, 2001; Steele et al., 2009) and economic security (Biblarz and Gottainer, 2000), earlier sexual activity and pregnancies (Kiernan and Hobcraft, 1997; Wu and Thomson, 2001) than children in intact families. Studies on the effects of living in non-traditional families on the children's emotional status are, instead, less frequent (Kiernan and Mensah, 2010).

The present study examines whether adolescents living in non-traditional families have lower levels of psychological well-being than those living in traditional families and whether the effect of family structure on adolescent's emotional status is mediated via family resources. Non-traditional families have been shown, indeed, to face more risks of lower economic, relational and parental resources (at least as regards single-parents, see, for example, Hope, Power and Rodgers, 1999), and these, in turn, matter for the psychological well-being of children.

The present paper explores this aspect with reference to adolescents aged 14-17 interviewed in the survey *Health status of the population and use of health services – years 2004-2005*, carried out in Italy in 2005 by the National Statistical Institute. The survey collected data on a representative sample at national level of Italian households.

2. Background

Different theories may explain why and how family structure matters in explaining differences in children emotional well-being.

The first mechanism that may explain the effect of family structure on child outcomes is economic status. It is well established that children who experience poverty are more likely than their more advantaged peers to have negative outcomes both in terms of risky behaviours and psychological well-being (see, for example, Strelitz and Lister, 2008). Thus, many differences in child outcomes between single-parent and two-parent families may be a result of poverty (McLanahan and Sandefur 1994): lone-mother families are, indeed, typically more financially impoverished than two-parent families (Millar and Ridge, 2001).

The second factor which should be considered as a mechanism through which family structure acts regards parents' health. Parental health influences their children's psychological well-being. Poor (mental) health is probably associated with less engaged parenting and a lower ability to emotionally attend and respond to children's needs; and this in turn can affect the psychological and emotional well-being of children (Smith, 2004). Literature has documented that lone mothers report more depressive symptoms than partnered mothers (Targosz et al., 2003; Cooper et al., 2008). In

fact, the bulk of research on stepfamilies indicates that children in stepfamilies and single-parent families share similar developmental outcomes (Coleman et al., 2000). It should be underlined that economic resources and mental health of parents are not independent of each other: from the one hand, economically disadvantaged individuals are more likely than the more advantaged to experience psychological problems (for example, see Readings and Reynolds, 2001); from the other hand, socio-economic deprivation and financial difficulties frequently occur with mental health difficulties (Hudson, 2005 and Jenkins et al. 2008).

Lastly, the experience of parental separation may be in itself a source of stress for emotional well-being of children (Strohschein, 2005). Changes in the daily life connected with the parents' separation as well as the possible conflicts between parents following the separation may induce stress and lower emotional status in the children. Moreover, in the case of repartnering of parents, children may experience additional disadvantages by living with the biological parent's partner who may not be a fully integrated family member and may compete for their biological parent's time and attention, so that there may be an additional distress due to the need to adjusting to the new circumstances.

Thus, family structure may influence directly a child's outcomes or through its impact on economic status and on parental mental health, suggesting that the relationship between family structure and children's well-being might be mediated by these parental resources.

Joshi et al. (1999) found, for example, that socio-economic status of parents eliminated the relationship between family structure and children's cognitive and behavioural outcomes in both Britain and the United States. In line with this, Carlson and Corcoran (2001) showed (with American data) that many family structure effects on children's cognitive and behavioural outcomes are eliminated once a range of control variables (including family income and maternal psychological functioning) are taken into account in the models. Similarly, more recently, some other authors found with reference to Britain that there was little association between family status and children's emotional well-being, once other factors, such as poverty and maternal depression, had been taken into account (Kiernan and Mensah, 2009). However, other studies showed different results: for example, with data from the British child mental health survey, the increased risk of a psychiatric diagnosis for children in lone parent families has found to be not entirely removed when a variety of socio-economic factors were included (Meltzer et al., 2000). In a similar way, again with British data, a more recent paper has shown that the differences in emotional well-being between children with different family structures attenuate, but remain statistically significant, taking into account mental well-being of parents (Kiernan and Mensah, 2010).

3. Dataset and variables

3.1 Data

The data come from the survey *Health status of the population and use of health services – years 2004-2005*, carried out in Italy in 2005 by the National Statistical Institute (ISTAT). The survey collected data on health status, disability, life styles, prevention, and use of health services and of medicines for each component of a sample of about 50,000 households (corresponding to about 128,000 individuals), that is representative at a national level. We focus our attention on the 5,284 individuals aged 14-17 living with at least a parent (23 cases – corresponding to 0.4% of the adolescents, were removed because living in non-parental families).

Health status was measured for all individuals over the age of 13 by the SF-12, a widely used self-reported generic measure of health status, yielding both a physical and a psychological dimension (Ware et al., 1998) and referred to the last 4 weeks prior to the interview. Starting from the SF-12, ISTAT provides two synthetic measures of health: the physical component summary (PCS) and the mental component summary scale score (MCS) (for details on the construction of these synthetic indexes, see Ware et al., 1998). Moreover, the questionnaire presented also a selection of items coming from the SF-36 (an extended version of SF-12, see Ware and Sherbourne, 1992) which measures more in detail physical and psychological dimensions. In particular, two of the four components of SF-36 describing psychological health are provided in the survey: vitality (VT - described through four items) and mental health (MH – measured by five items).

Other individual socio-economic and demographic information (such as age, gender and education) is available. This allows us to have individual information for adolescents and for their parents. In addition, information on family characteristics (such as structure, residence region and economic conditions) is collected.

3.2 Variables

Dependent variables

We do not limit our attention to a single indicator of adolescents' emotional status: three indicators were considered. Adolescents' emotional status was measured, indeed, considering a) the synthetic measure of psychological health, the MCS index and b) two of its analytical components available in the survey: vitality and mental health.

The MCS index is based on SF-12 and it ranges from 0 to 100, higher scores indicating better psychological well-being. Adolescents of our sample presented a MCS varying from 10.26 to 62.3 (mean of 53.51). The two other indexes are built from SF-36. Vitality is based on four items

describing how often (1 = always, 2 = almost always, 3 = for a long time, 4 = sometimes, 5 = almost never, 6 = never; higher values indicating lower frequencies) an individual feel pep, energy, worn out, tired in the last four weeks prior to the interview; similarly, mental health is built with five items on how often an individual feel nervous, down in dumps, peaceful, sad, happy. The two synthetic indexes are obtained summing up the score describing how often they feel the different positive or negative moods (positive moods' frequency scores are coded in the opposite, higher values indicating higher frequencies) and standardizing them by their range. In this way both indexes vary from 0 to 100. In our sample, adolescents aged 14.17 have a vitality score ranging from 5 to 100 (with mean value of 78.48) and a mental health varying from 0 to 100 (mean value of 82.49).

For our goals, we dichotomized MCS using the 20^{th} percentile as a cut-off. In fact, other studies suggested different cut-off; for example, Abramson and colleagues (2008) used the 10^{th} percentile. However, focusing on adolescents, we decided that a higher threshold may better represent a psychological distress for this population. Similar thresholds are used to dichotomise vitality and mental health.

Explanatory variables

The key independent variable was family structure. The survey distinguished families formed by couples from those with only a single-parent (11.8% of the sample, see table 1). In addition, considering teens living in families with couples, we identified those living with both biological parents and those living in families where one of the parents was not their biological parent. In this way, 110 adolescents aged 14-17 (corresponding to the 2.1% of the sample, see table 1) have been identified as living in step-families. No information is however able to distinguish who is the step-parent between the two members of the couple.

Other covariates described the family resources. Family resources are referred to the family (income) or to the parents (age, education, health).

Economic status of the family was measured considering a question asking a subjective evaluation of the family economic resources in the last 12 months: a dichotomous covariate distinguished whether the family has poor or insufficient resources.

Information on parents is limited to co-resident parents. Therefore, for single-parent families, we refer to the unique parent's characteristics; for families with both parents we consider the mean age and the mean health (both the physical and the mental health components) of the parents and the highest educational level of at least one parent (university, high school or junior school or less).

In the case of step-families these variables consider obviously the characteristics of the partner's biological parent.

Table 1. *Percentage distribution of covariates and adolescents with psychological health under the 20th percentile by their family structure and other factors.*

	Sample % (n=5,284)	% with MCS under the 20th percentile	% with VT under the 20th percentile	% with MH under the 20th percentile
Family structure				
Both biological parents	86.1	19.7	16.9	17.7
Stepfamilies	2.1	28.2	22.7	27.3
Single-parent	11.8	21.7	16.4	20.6
Family's economic status				
Sufficient	66.7	19.6	17.0	17.3
Poor or insufficient	33.3	21.2	17.1	20.1
Family's highest educational level				
High	14.0	22.2	19.8	19.9
Middle	33.4	19.4	17.0	17.4
Low	52.6	19.9	16.3	18.3
Average parental age				
Under the 33rd percentile (under 42.5)	31.6	20.3	15.4	17.6
33-66th percentile (42.5-47)	34.7	18.6	16.8	18.0
Over the 66th percentile (over 47)	33.7	21.4	18.8	19.0
Parental physical health (PCS)				
Under the 33rd percentile (under 51.9)	33.3	26.3	22.8	23.9
33-66th percentile (51.9-55.7)	33.3	17.4	15.1	14.9
Over the 66th percentile (over 55.7)	33.4	16.6	13.2	15.9
Parental mental health (MCS)				
Under the 33rd percentile (under 48.3)	33.3	30.8	24.9	29.4
33-66th percentile (48.3-54.2)	33.3	18.7	16.8	17.1
Over the 66th percentile (over 54.2)	33.4	10.8	9.3	8.3
Adolescent's gender				
Male	51.7	24.3	13.7	15.3
Female	48.3	16.2	20.6	21.4
Adolescent's physical health (PCS)				
Under the 33rd percentile (under 55.9)	32.3	22.3	26.5	20.7
33-66th percentile (55.9-56.7)	34.0	4.3	4.7	4.6
Over the 66th percentile (over 56.7)	33.7	33.9	20.4	29.7
Adolescent's age				
14	25.0	17.6	14.8	15.1
15	24.7	17.3	15.2	15.9
16	24.6	22.9	18.8	21.8
17	25.7	22.5	19.4	20.2
Residence's region				
North	34.2	24.5	22.2	22.4
Centre	16.0	20.2	17.6	18.5
South	49.8	17.0	13.3	15.3

A range of background factors were also included as controls in our multivariate analyses. In particular, we control for adolescents' age and gender, for their physical health (measured by the PCS index) and for the residence region.

Table 1 (column 1) shows the percentage distribution of each covariate for the sample of 5,284 adolescents aged 14-17.

4. Some descriptive findings

The dichotomous measures of the emotional status reported in table 1 showed that adolescents living in step-families showed highest level of psychological distress, particularly in the mental health component, whereas teens living in single-parent families present intermediate levels of well-being, with a level of vitality which is very similar to that observed for teens living in traditional families. These results are confirmed if we use the mean values of the three indexes. MCS have a mean value of 53.60 for teens living in families with both biological parents, of 51.88 for adolescents living in step-families and of 53.13 for those living in single-parent families. Similarly VT and MH mean value is respectively 75.86 and 78.87 for adolescents living in step-families, 78.19 and 81.35 for those living in single parent families and 78.58 and 82.74 for teens living in two-biological-parent families.

Table 1 showed also that family resources influence adolescents' psychological well-being. As regards economic status, teens with MCS under the 20^{th} percentile are in higher percentages among families with poor economic resources, even if the differences are not very strong. A similar finding regards the mental health component, but not vitality ones. In the opposite direction, parents with higher education have children with lower emotional well-being. The stronger effect is shown by the parental physical and, particularly, psychological health: adolescent with emotional well-being under the 20^{th} percentile (in terms of MCS and the two of its components) are in higher percentages in families with parents with low levels of health.

Also the background factors showed effects on adolescents' psychological well-being. In particular, boys appear to feel better than girls; younger children have lower health problems than those aged 16 or over and adolescents living in the North have lower level of psychological well-being than those living in the Centre and, particularly, in the South. The effect of adolescents' physical health is non-monotonous: teens with MCS, vitality and mental health under the 20^{th} percentile are in higher percentages when they have the lowest or, above all, the highest physical health.

5. Results of multivariate logistic analyses

Tables 2, 3 and 4 report results for multivariate analyses describing the probability of adolescents of having MCS, vitality and mental health, respectively, under the 20th percentile. The analyses were carried out in a series of steps: model 1 includes only the family structure and the background controls, model 2 adds the family economic status, finally, model 3 includes also the parental health.

Table 2 shows that teens who reside in stepfamilies experience lower levels of MCS than teenagers residing with two biological parents and this effect is not explained by the other covariates: family socio-economic status variables in conjunction with the parental health variables do not reduce the effect of family type. Thus, descriptive findings were confirmed, at least weakly, by multivariate analyses.

Table 2. *Factors influencing the probability of having MCS under the 20th percentile.*

	Model 1	**Model 2**	**Model 3**
Intercept	-4.33***	-4.67***	0.78
Family structure *(ref: both biological parents)*			
Stepfamilies	0.38*	0.37*	0.42*
Single-parent families	0.10	0.07	-0.16
Adolescent's gender *(ref: female)*			
Male	-0.52***	-0.52***	-0.57***
Adolescent's age *(ref: 17 years old)*			
14	-0.31***	-0.29***	-0.32***
15	-0.34***	-0.33***	-0.35***
16	0.04	0.05	0.07
Residence's region *(ref: South)*			
North	0.48***	0.49***	0.58***
Centre	0.22**	0.23**	0.23**
Adolescent's physical health (PCS)	0.06***	0.06***	0.06***
Family's economic resources *(ref: sufficient)*			
Poor or insufficient		0.21***	-0.05
Educational level of at least one parent *(ref: low)*			
High		0.11	0.19*
Middle		-0.03	0.02
Average parental age		0.01	-0.01
Parental physical health (PCS)			-0.04***
Parental mental health (MCS)			-0.07***

* = p < 0.10, ** = p < 0.05, *** = p < 0.01

However, the results vary according to the component of psychological well-being.

In terms of vitality (table 3), stepfamilies teens have not different levels of vitality than adolescents living with both biological parents. Instead, it is interesting to note that, contrary to

descriptive findings, once the parental health is controlled for, adolescents living in single-parent families showed higher levels of vitality than those living in traditional families.

The story was somewhat different with respect to mental health (table 4), teens living in step-families present significantly lower well-being than those living with both biological parents, and inserting additional controls did not attenuate the differences. Instead, there are no indications that children of single-parent families face lower mental health than adolescents living with both biological parents.

This suggests that the association between the family structure and the adolescent's emotional well-being is not mediated via parental socio-economic circumstances and parental health.

Table 3. *Factors influencing the probability of having vitality under the 20th percentile.*

	Model 1	**Model 2**	**Model 3**
Intercept	2.32***	1.84***	6.41***
Family structure *(ref: both biological parents)*			
Stepfamilies	0.25	0.27	0.28
Single-parent families	-0.09	-0.09	-0.32**
Adolescent's gender *(ref: female)*			
Male	-0.52***	-0.52***	-0.56***
Adolescent's age *(ref: 17 years old)*			
14	-0.37***	-0.34***	-0.38***
15	-0.30***	-0.28***	-0.29***
16	-0.04	-0.02	-0.01
Residence's region *(ref: South)*			
North	0.61***	0.61***	0.68***
Centre	0.32***	0.31***	0.31***
Adolescent's physical health (PCS)	-0.07***	-0.07***	-0.06***
Family's economic resources *(ref: sufficient)*			
Poor or insufficient		0.09	-0.12
Educational level of at least one parent *(ref: low)*			
High		0.22**	0.29**
Middle		0.04	0.07
Average parental age		0.01	-0.01
Parental physical health (PCS)			-0.03***
Parental mental health (MCS)			-0.06***

* = p < 0.10, ** = p < 0.05, *** = p < 0.01

As regards the effects of the family resources, it is interesting to note the strong effect of parental physical and psychological health, which is highly significant both for MCS and for its two components. The effect of the family's economic resources is in the expected direction, but it disappears when parental health is controlled for: probably this is connected to the fact that family's economic status is measured by a subjective indicator which may be connected with (psychological) health. Lastly, having a high educated parent increases the risk of psychological problems.

Also the background factors have highly significant effects. In particular, boys have lower probability of having psychological well-being under the 20th percentile than girls; adolescents aged 14-15 have lower risk of psychological problems than those aged 16-17 and adolescents living in the North and in the centre have higher level of psychological distress than those living in the South. These effects are similar both for MCS and for its two components.

Table 4. *Factors influencing the probability of having mental health under the 20th percentile*

	Model 1	**Model 2**	**Model 3**
Intercept	-1.59***	-1.97***	3.16***
Family structure *(ref: both biological parents)*			
Stepfamilies	0.46**	0.45**	0.47**
Single-parent families	0.16	0.12	-0.15
Adolescent's gender *(ref: female)*			
Male	-0.42***	-0.42***	-0.47***
Adolescent's age *(ref: 17 years old)*			
14	-0.36***	-0.35***	-0.39***
15	-0.29***	-0.29***	-0.31***
16	0.11	0.12	0.15
Residence's region *(ref: South)*			
North	0.47***	0.49***	0.58***
Centre	0.22**	0.24**	0.24**
Adolescent's physical health (PCS)	0.01	0.01	0.01*
Family's economic resources *(ref: sufficient)*			
Poor or insufficient		0.27***	0.01
Educational level of at least one parent *(ref: low)*			
High		0.13	0.21*
Middle		-0.04	-0.01
Average parental age		0.01	-0.01
Parental physical health (PCS)			-0.03***
Parental mental health (MCS)			-0.08***

* = p < 0.10, ** = p < 0.05, *** = p < 0.01

5. Discussion and conclusion

Descriptive analyses showed that teenagers living in non-traditional families, and above all in step-families, experience lower psychological well-being, than teen living in two-biological-parent families, particularly for the mental health component.

At the multivariate level, however, the picture is less clear. Results showed that the negative effect of non-traditional families on adolescent's emotional well-being is highly significant only for step-families and only for the mental health component, whereas living in single-parent families has not negative effect on adolescent's psychological well-being. In the case of vitality, single-parent families have even a significant positive effect. This last result is not clearly interpretable and needs for more in depth analyses (it might be associated with the fact that the health of the non-resident

parent is not considered). Moreover, the possible negative effects of non-traditional families are not explained by the socio-economic factors or parental health, thus suggesting that the association between the family structure and the adolescent's emotional well-being is not mediated via parental socio-economic circumstances and parental health. Maybe, the experience of parental separation is in itself a source of stress for emotional well-being of children.

This paper suffers from some shortcomings. Some of them are structural. Since the data used in this paper are cross-sectional, the results are suggestive and it cannot be inferred that there are causal links. The survey we used is particularly rich on data, yet it does not include details about family structure histories: for example, the distance between interview and separation for single-parent families and for step-families is not known. Other limits depend on the fact that these are preliminary results that need further more in depth analyses. First, we need to better analyse the meaning of the health indicators used to measure the adolescent as well the parental health. In addition, the potential correlation between the subjective perception of the economic status and the parents' health should be considered (even if the use of other indirect measures of economic status showed not significant effects). Finally, we have to better control for the effect of the family resources when they are measured on the caracteristics of the parents.

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