Counting on parents or others? The role of social support for fertility intentions in Finland

Research findings

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Abstract

This study explores the associations between receiving social support from network members other than individuals' parents and fertility intentions in Finland. It additionally examines whether support from others can compensate for the lack of parental support or complement their support. Using logistic regression models applied to Generations and Gender Survey (GGS) data on individuals aged 18–45 years enriched with administrative registers, we found that Finns who received instrumental support from others were more likely to intend to have a child. Support from others did not compensate for, nor complement, a lack of parental support or parental geographic remoteness. However, among men with at least one parent deceased or unknown, those receiving emotional support from others were more likely to intend to have a child within three years (and as likely as individuals with both parents alive) than those not receiving this support, suggesting a compensatory mechanism.

Keywords: fertility intentions, social support, Finland, GGS

Introduction

Fertility intentions represent a strong predictor of fertility (Schoen et al., 1999). Although completed fertility is lower than intended fertility in today's Europe, few children are born unplanned (Lainiala, 2012). Intending to have a child in the near or more distant future is hence key for actual childbearing in contemporary societies, in addition to less conscious and rational motivational traits and desires (see Philipov & Bernardi, 2012; Miller, 2011; and Schoen et al., 1999 for the discussion).

In this study, we focus on fertility intentions in Finland. The country is currently facing a steeply declining total fertility rate, from 1.87 in 2010 to 1.32 in 2022 (Statistics Finland, 2023). Although Finland has extensive universal parental leave and low-cost daycare (Österbacka & Räsänen, 2022)—policies that reduce the costs of childbearing—Finns of reproductive age often cite concerns about childcare and social support as important reasons for not intending to have a child or more children (Savelieva et al., 2022). Studies from other countries also show that social support matters for plans to have children (e.g., Bühler & Fratczak, 2007).

Social support is often categorised into four broad types: emotional, instrumental, informational, and appraisal (House, 1981). Theoretically, researchers mostly associate comforting (i.e., emotional support) and provision of tangible aid and services (i.e., instrumental support) with fertility (Bernardi & Klärner, 2014). The cooperative breeding hypothesis suggests that parents seek to employ a wide range of support providers into raising children (Hrdy, 2005; Sear & Coall, 2011). Receiving support softens the perceived costs of parenthood by enabling couples to better combine paid work and family life (Aassve et al., 2012; Thomese & Liefbroer, 2013).

Previous research has pointed to associations between exchanging support with the network and intentions to have a (second) child ever and in near future (Philipov et al., 2006). Earlier studies have also explored the relationship between planning to have a child and support from one's own parents (Tanskanen & Rotkirch, 2014; Rutigliano & Lozano, 2022) or support from the broader family, i.e., parents and other relatives (Fiori, 2011; Merz, 2012). However, researchers have rarely differentiated between parents and other network members when examining intentions. Understanding the role of the broader context is crucial, not the least because trends such as postponed fertility (Roustaei et al., 2019) mean that not all parents are able to help.

Furthermore, existing research has mainly concentrated on receiving support and its impact on intentions to have a second or subsequent child. The rationale behind this is that the provision of childcare to individuals who do not have children yet is not observable and, thus, considered irrelevant to the decision-making process of having a first child. However, recent findings by Pink (2018) and Rutigliano (2020) demonstrate that even first-time parents can anticipate the future levels of grandparental childcare provision by observing their parents' characteristics, thereby adjusting their decision to become parents.

This study explores *the association between reported emotional and instrumental support received from network members other than parents and intentions to have a(no-*

ther) child. Specifically, we contrast the importance of other network members across two contexts: when individuals *can* and *cannot rely on support from their own parents*. The opportunity to rely on them can be operationalised in different ways (for discussion, see Rutigliano, 2020). Here, we test three operationalisations of parental availability that appear suitable for those who intend to have a first or a subsequent child: (i) previous experience of receiving social support from their own parents, (ii) parental geographic closeness, and (iii) parental vital status.

Our research contributes to the literature on fertility intentions in several ways. First, we differentiate between parents and other network members as sources of support when examining intentions. Second, we consider receiving not only childcare support (which is observable only for those with at least one child) but also other components of social support, i.e., emotional as well as financial support and help with household tasks. This allows us to also investigate individuals who do not have children while previous studies often ignored this group. Third, we explore both short-term (i.e., within three years) and long-term (i.e., at some point in the future) intentions (Philipov & Bernardi, 2012). The intentions to have a child at some point in the future are particularly relevant for individuals below the normative age of transitioning to parenthood, as they are less likely to plan to have a child within three years of the moment of data collection but could still estimate whether support from parents or others can alleviate the costs of future parenthood. Fertility intentions are not necessarily stable and coherent early in life (Bhrolcháin & Beaujouan, 2019). Nonetheless, by analysing long-term childbearing intentions among younger individuals, we do not lose information about the association between social support and hypothetical fertility in this age group. As childlessness plays a substantial role in Finland's declining fertility rates (Roustaei et al., 2019; Golovina et al., 2023), considering these young and yet childless individuals is crucial for understanding future fertility trends in Finland.

Hypotheses

Building on previous findings that demonstrate positive associations between supportive relationships with extended family and childbearing intentions (Fiori, 2011; Merz, 2012), as well as the involvement of non-kin network members in childcare (Stulp & Barrett, 2021), we broadly hypothesise that *individuals who receive support from network members other than parents will be more likely to intend to have a(nother) child compared to those who do not receive such support (Hypothesis 1)*.

Research on social support (which primarily focuses on support in later life) shows that individuals often rank their sources of support and turn to less preferred sources if those representing the first choice are unavailable or unable to meet the care needs (Shanas, 1979; Cantor, 1991). Given that parents have a significant evolutionary interest in investing in (grand)children (Sear & Coall, 2011), individuals planning to have a child may perceive them as the preferred caregivers, followed by other network members if

parents are unavailable. The functional specificity of relationships model (Connidis & McMullin, 1994) adds flexibility to the concept of support provision, highlighting that different relationships serve different functions for people over time. Based on this model, there might be differences in how support from others is negotiated depending on the availability of parents. Translating these theoretical arguments to fertility research leads us to a substitution hypothesis: *Among individuals who cannot rely on parents, those receiving support from others will be more likely to have childbearing intentions compared to those not receiving such support (Hypothesis 2a)*.

On the other hand, according to the cooperative breeding hypothesis, the optimal strategy for raising children involves engaging a diverse range of support providers in childcare (Hrdy, 2005; Sear & Coall, 2011). From this perspective, the willingness to have a child could increase with each additional supportive network member (Bühler & Philipov, 2005). Consequently, a complementary hypothesis emerges: *Individuals who can rely on parents and also receive support from others will be more likely to intend to have a child compared to those who solely rely on parental support without additional support from others (Hypothesis 2b)*.

Data and methods

We use data from the Finnish Generations and Gender Survey (GGS). This internationally comparative survey was collected for the first time in Finland in 2021–2022 as a web-based survey among the 18- to 54-year-old population, with certain groups being oversampled (see Hägglund et al., 2024 for further details on data collection). The survey data was linked to population registers, allowing researchers to access further information on, for instance, family members. In Finland, the Population Research Institute at the Family Federation of Finland (Väestöliitto ry) administered the data collection, while the register linkage was performed by Statistics Finland.

GGS was selected because it combines retrospective information on partnership and childbearing histories with detailed questions on current fertility intentions and ideals, caregiving responsibilities, and relationships with family members, as well as many known predictors of fertility behaviour. The survey is also comparable to GGS data collected in other countries. This enables future studies to examine the degree to which results can be generalised to other contexts. Furthermore, to the best of our knowledge, it is the most recent representative dataset covering childbearing intentions and social relations among individuals in Finland that can be linked to registry data.

The *dependent variables* indicate intentions to have the first or another child (1) within three years and (2) at some later point in the future. The answers ‘Definitely yes’ and ‘Probably yes’ are classified as the presence of intention (1) while the answers ‘Unsure’, ‘Probably not’, and ‘Definitely not’ are classified as the absence of intention to have a child (0 – the reference category). We decided to follow this commonly used approach to coding uncertainty in fertility intentions to prevent overstating the childbearing intention (e.g., Puur et al., 2008; Miettinen et al., 2011; Puur et al., 2018) and clearly contrast in-

dividuals who have conscious positive childbearing intentions with individuals who do not have them. Previous research from Finland has shown that young adults who did not intend or were unsure about having a(nother) child also rarely did so, while among those who intended to have a child not everybody succeeded (Lainiala, 2012). We also present a sensitivity check that excludes those who selected the category 'Unsure'.

The main *explanatory variables* are emotional and instrumental support received from network members other than parents and having an opportunity to rely on parental support. In the GGS, emotional support is measured based on the question about people with whom respondents discuss important personal matters. Instrumental support combines financial support, help with household tasks, and childcare tasks within the last 12 months of responding to the questionnaire. After each of the support-related questions, respondents were asked to specify from whom they received each type of support. We classified the support into two categories: support received from parents and support from all others. The category 'all others' includes both family members and non-kin but excludes partners. Parents-in-law were classified as 'others'. Variables about receiving support have two categories: 'did not receive support' (0 – the reference category) and 'received support' (1).

Having an opportunity to rely on parents was operationalised in three different ways. First, a measure of receiving any support from parents combines emotional and instrumental support from a mother or father with, again, two categories: 'did not receive support' (0 – the reference category) and 'received support' (1). Second, we computed the intergenerational geographic proximity variable using register data about the distance to the closest parent among a set of parents consisting of a biological mother, biological father, adoptive mother, and adoptive father (if the informant had an adoptive parent). The resulting variable contains three categories: (0 – the reference) no parent within 20 km, (1) at least one parent within 20 km, (2) unknown. The last category included those whose parents passed away or were unknown. Third, a measure of having both parents alive is based on the separate GGS questions about the vital status of a mother and a father. In addition to the options 'Yes, still alive' and 'No, not alive anymore', respondents could select the following answers: 'I do not know whether she/he is still alive' or 'I do not know anything'. The resulting variable includes two categories: 'at least one biological parent is deceased or unknown' (0 – the reference category) and 'both parents are alive and known' (1).

We control for a set of known predictors of positive fertility intentions (Hashemzadeh et al., 2021; Philipov et al., 2006; Tanskanen & Rotkirch, 2014; Rutigliano & Lozano, 2022). We employed information about respondents' age, gender, marital status, number of children, education, employment status, immigrant background, and urbanity of the place of residence from the register records in the years of 2020–21. Information about religiosity and number of siblings was derived from GGS; missing information on these survey items were included as an 'unknown' category.

To answer our research question, respondents at the age of 18–45 years, or the age range at which most Finns realise their childbearing plans, were selected. Respondents who did not answer for at least one of the questions needed for construction of our main dependent and explanatory variables were excluded from the analyses. Information was

missing for 2.1 per cent of answers about short-term intentions, 5.9 per cent of answers about long-term intentions, 18.1 per cent of answers about at least one component of received support, 5.0 per cent of answers about parental vital status. As a result, out of a sample of 2,921 respondents from the age group of our interest, we used 2,105 observations in models for an intention to have a child within three years and 2,097 observations in models for an intention to have a child at some point in the future. To correct the representativeness of the sample, a total normalised weighting scheme (probit model with two-way interactions of age, gender, region, number of children, and education) was used in all models.

A series of logistic regression models were conducted with respondents as units of analysis. The results are presented as average marginal effects (AMEs) or predicted probabilities to facilitate a comparison between models (Mood, 2010). We first present three models assessing the association between social support from others and the intention to have (more) children (Table 1). Each of these three models consider emotional and instrumental support from others and all control variables but include only one dimension of parental support. Then, we show whether support from others shapes childbearing intentions differently among those who can and cannot rely on parents (Figures 1, 2, 3). Summary statistics for all variables are featured in Table A1 in the Appendix.

Results

The role of support from parents and others

The first research hypothesis stated that receiving support from network members other than parents would be associated with a higher likelihood of intending to have a(nother) child. Indeed, our findings indicated that Finns who received instrumental support from others were more likely to express intentions to have a child, both within three years and at some point in the future, compared to those who did not receive such support (Table 1). However, our models did not point to statistically significant associations between receiving emotional support and childbearing intentions. It is worth noting that the association between support from other network members and childbearing intentions were not sensitive to adding the specific control for parental support.

Interestingly, not all measures of parental availability demonstrated a significant relationship with higher childbearing intentions. While receiving any support from parents was associated with a positive intention to have a child at some point, it was not associated with short-term intentions. The association between having a parent within a 20 km radius and childbearing intention was negative and not statistically significant. Individuals who had both parents alive and known were more likely to express intentions of having a child compared to those with at least one absent parent; however, this association was not statistically significant.

Table 1. *Childbearing intentions, AMEs (SEs)*

	Within 3 years			At some point in the future		
	M1.1 Support	**M2.1 Closeness**	**M3.1 Vital status**	**M1.2 Support**	**M2.2 Closeness**	**M3.3 Vital status**
Receiving any support from parents (ref: No)						
Yes	-0.005 (0.021)			0.051* (0.024)		
Geographic closeness of parents (ref: No parents within 20km)						
Closest parent within 20km		-0.006 (0.017)			-0.037† (0.021)	
Unknown		0.153* (0.068)			0.111 (0.073)	
Parental vital status (ref: At least one parent is deceased or unknown)						
Both parents alive and known			0.034 (0.023)			0.019 (0.032)
Receiving emotional support from others (ref: No)						
Yes	0.008 (0.026)	0.004 (0.027)	0.009 (0.026)	0.005 (0.030)	0.006 (0.030)	0.012 (0.030)
Receiving instrumental support from others (ref: No)						
Yes	0.041* (0.019)	0.042* (0.019)	0.041* (0.019)	0.050* (0.022)	0.059* (0.022)	0.056** (0.022)
Log pseudo-likelihood	-726.67413	-722.44392	-725.58216	-868.77867	-866.60252	-871.18422
Wald$_{\chi^2}$	167.62 (23), p< 0.001	172.44 (24), p< 0.001	169.52 (23), p< 0.001	298.99 (23), p< 0.001	324.29 (24), p< 0.001	300.16 (23), p< 0.001
PseudoR^2	0.121	0.125	0.123	0.263	0.265	0.2614
N of observations	2,105			2,097		

Notes: † p< 0.10, *p< 0.05, **p< 0.01.

The models control for each type of parental support separately. All models adjust for age, gender, marital status, number of children, education, employment status, number of siblings, religiousness, immigrant background, and urbanity of the place. Model estimates for all these control variables can be found in Table A2 in the Appendix.

In addition, we analysed the associations between receiving instrumental and emotional support from parents and childbearing intentions. For short-term intentions, the estimated AME for receiving instrumental support from parents was -0.012 (p = .517), while for receiving emotional support, it was 0.004 (p = .805). In the model for intentions to have a child at some point, the AME for receiving instrumental support from parents was 0.033 (p = .128), and for receiving emotional support, 0.027 (p = .206).

The role of others when parents are unavailable

We formulated two hypotheses concerning the interaction between the effects of parental availability and receiving support from others on childbearing intentions. *Hypothesis 2a* implied that support from others would compensate for the unavailability of parents so that among those who did not have parents available, receiving support from others would increase the likelihood of childbearing intentions. *Hypothesis 2b*, in turn, proposed that support from others would complement parental availability so that those who had parents available and received support from others would be more likely to intend to have a child than those who could rely on parents only. We found mixed results regarding these hypotheses.

Turning to parental support, the models do not indicate statistically significant differences in the effects of either instrumental or emotional support from others on childbearing intentions by social support from parents (Figure 1).

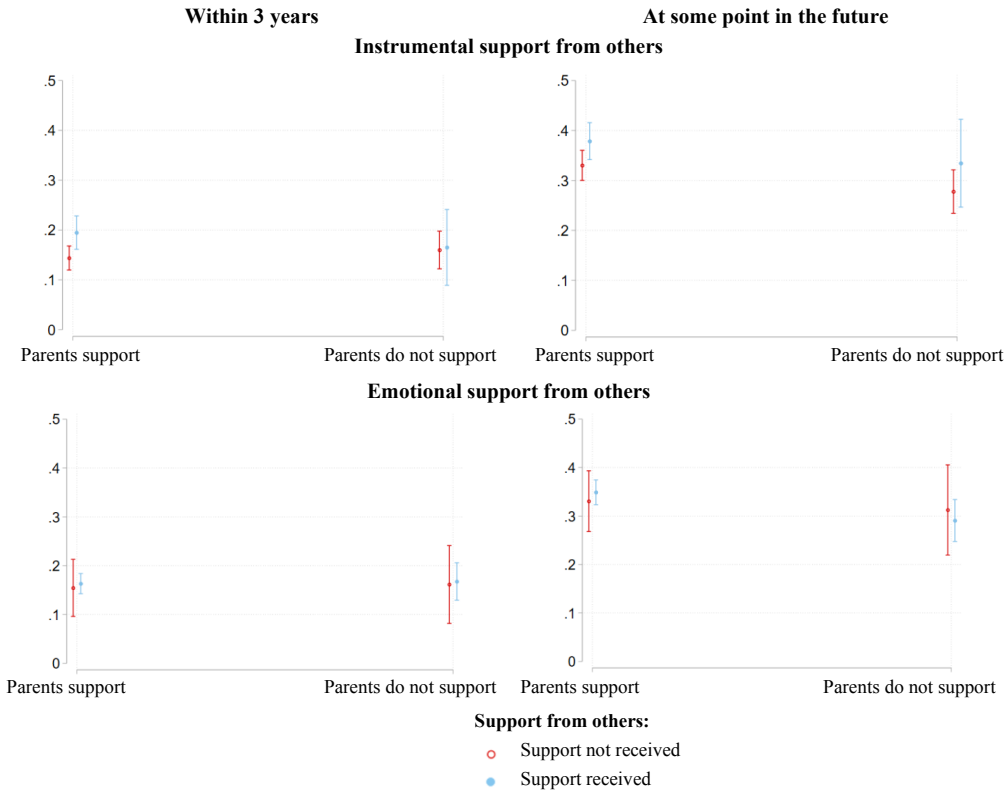

Figure 1. *Predicted probabilities (and 95% CIs) of childbearing intentions: interplay between receiving any support from parents and others*

Next, we explored variations by parental geographic closeness (Figure 2). Our results did not provide evidence of statistically significant variations in the effects of receiving emotional support on any type of childbearing intentions among individuals without and with at least one parent nearby. The interaction effects between receiving instrumental support from others and parental geographic closeness on short-term fertility intentions were also not statistically significant. However, among those who did not have parents nearby, receiving instrumental support from others was associated with increased likelihood of intending to have a(nother) child at some point (predicted probability = .318 and .411). There was a similar compensatory tendency, albeit statistically non-significant at a 5% level, regarding not having a parent close by and receiving emotional support from other network members. The differences in intentions among individuals who lived far from parents and did not receive instrumental support from others and those who lived far from parents but received this support seem to suggest a compensation mechanism. However, it is important to note that those living close to parents (irrespective of receiving support from others) differ neither from individuals living far from parents and receiving others' support nor from individuals living far from parents and lacking others' support in their predicted probabilities of intending to have a child. Therefore, these findings did not fully support our compensation hypothesis.

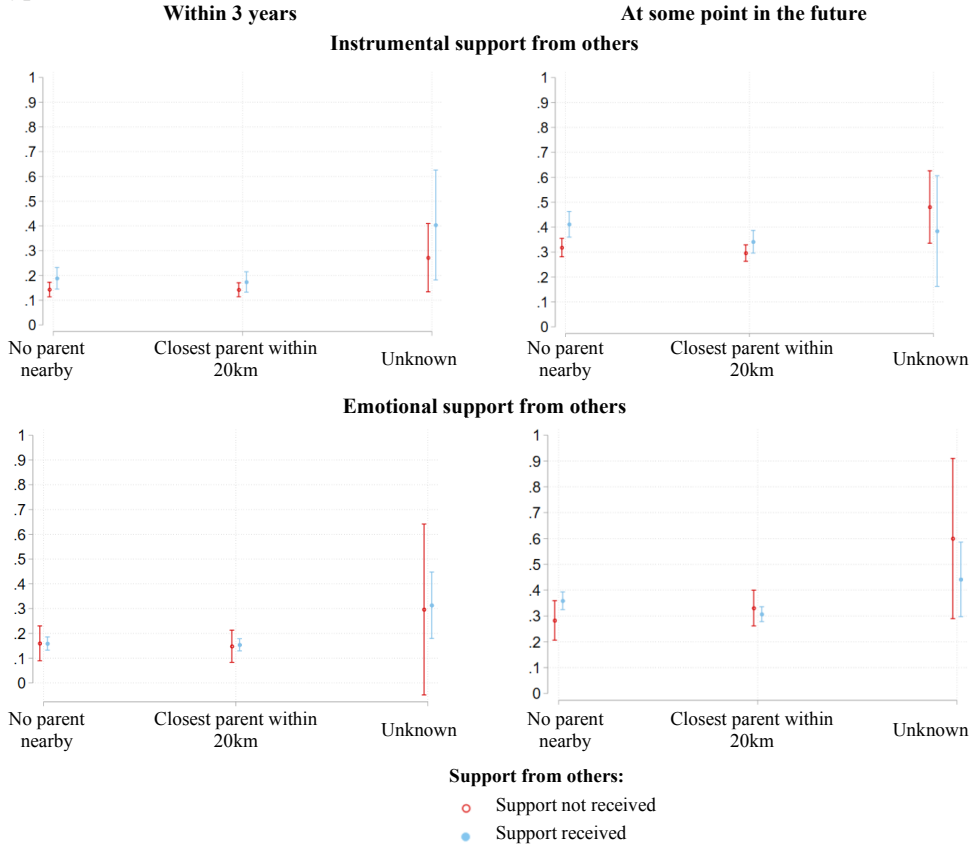

Figure 2. *Predicted probabilities (and 95% CIs) of childbearing intentions: interplay between parental geographic proximity and receiving support from others*

Finally, our results suggest that having parents alive matters. Among individuals who did not have both biological parents alive or known, those who received emotional support from others were more likely to intend to have a child within three years than those who did not receive it (predicted probability = .148 and .038 respectively, Figure 3). Interestingly, those who did not have both parents alive but received emotional support from others were as likely to express short-term childbearing intentions as those who had both parents alive and known. This finding provides support for the compensation hypothesis in the context of short-term childbearing plans. There was no similar interaction effect observed in the model for the intention to have a child at some point in the future.

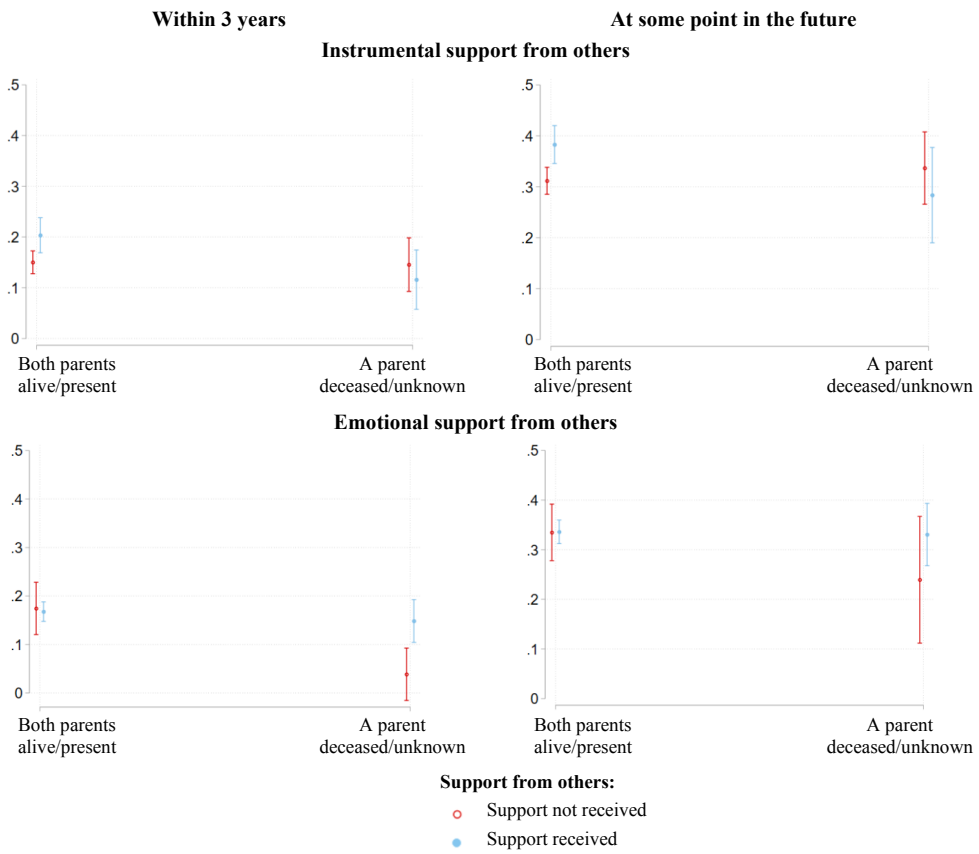

Figure 3. *Predicted probabilities (and 95% CIs) of childbearing intentions: interplay between parental vital status and receiving support from others*

When a parent was absent, receiving instrumental support from others did not increase the likelihood of intending to have a child. Among individuals who had both parents alive and known, those who received instrumental support from others were more likely to intend to have a child, although the differences were not statistically significant at a 5% level (but for short-term intentions, the differences were statistically significant at a 10% level, the 90% CI did not overlap: .131 - .169 and .174 - .232). Similar but statistically significant results were found in the model for the long-term intentions. It is important to note that the confidence intervals for the predicted probabilities of intended childbearing when both parents were present and when at least one of them was deceased or unknown overlapped. Therefore, it would be incorrect to claim that these findings supported the complementation hypothesis.

Auxiliary analyses

Because uncertainty in fertility intentions might represent a transition phase between positive and negative intentions or vice versa, and because uncertainty in fertility intentions is a volatile concept and relevant life course markers shape this volatility (Kuhnt et al., 2020), we ran a robustness check without the individuals who were uncertain about their intentions (306 individuals in case of short-term intentions and 386 individuals in case of long-term intentions). The direction of the AMEs of our measures of parental availability and support from network members beyond parents on the likelihood of expressing childbearing intentions did not differ substantially from the estimates of the primary models (Table A3 in the Appendix). Similar to the main analyses, Finns who received instrumental support from others were more likely to express intentions to have a child, both within three years and at some point, compared to those who did not receive such support, but the estimates were statistically significant only at a 10% level. The AME for receiving any support from parents for long-term intentions was not statistically significant unlike it was in the main model.

Since the commitments between kin and non-kin might differ (Aeby & Gauthier, 2022), we ran models that distinguished between support from the representatives of these two groups of network members (Table A4 in the Appendix). The models suggested that only receiving instrumental support from family members (beyond individuals' own parents) mattered for childbearing intentions.

Considering gender-specific care responsibilities, we tested variations in our findings for men and women (Figure A1 in the Appendix). Similar to the main analyses, our models did not point to interaction effects between receiving support from parents and others on childbearing intentions. Regarding our second operationalisation of parental availability—their geographic proximity—results indicated that when no parents lived nearby, women were more likely to intend to have a child at some point in the future if they received instrumental support from others. In the case of parental vital status, we observed diverse trends. First, when both parents were alive and known, women were more likely to express long-term intentions if they received instrumental support from others.

Second, women receiving instrumental support from others were more likely to intend to have a child within three years if they had both parents alive. Third, among men who did not receive emotional support from others, those with both parents alive were more likely to express short-term childbearing intentions compared to those with at least one absent parent. These results do not fully support our hypotheses because, similar to the primary models, neither parental geographic closeness nor the parental presence were related to higher childbearing intentions. Only the following result supported our compensation hypothesis: When at least one parent was deceased or unknown, men who received emotional support from others were more likely to express short-term fertility intentions (and as likely as those with both parents alive) than those who did not receive such support.

Discussion

Do young Finnish adults count on parents and others when planning to have a child? Here we investigated the association between reported emotional and instrumental support received from network members other than parents and reported intentions to have a(nother) child. We focused on the role of receiving this support in contexts where individuals can or cannot rely on their own parents. First, we hypothesised that receiving support from others would be positively associated with a higher likelihood of intending to have a(nother) child. Our findings indicate that receiving instrumental support from others did matter for both short- and long-term fertility intentions for adults of prime reproductive age in contemporary Finland. Within this group of others, family members (rather than non-kin) mattered most.

We also hypothesised that social support from others can compensate for parental unavailability or complement parental availability. Parental availability was operationalised as receiving parental support, parental geographic proximity, and parental vital status. Of the three operationalisations, parental vital status clearly shaped the relationship between receiving support from others and short-term childbearing intentions (the interaction term was statistically significant): Among individuals with at least one deceased or unknown parent, men receiving emotional support from others were more likely to plan to have a child within three years—importantly, as likely as those who had both parents alive—relative to those who did not receive such support, suggesting the compensatory mechanism. Finding the effect only for men is in line with previous research demonstrating that men's fertility, compared with women's, is more affected by parental death (Dahlberg, 2020), especially if a man comes from a disadvantaged background (Beaujouan & Solaz, 2023).

One possible explanation for observing a clear compensation mechanism only in the case of parental vital status is that the occurrence of parental death or the absence of a relationship with at least one parent is an unalterable circumstance. When individuals are planning to have a child in the near future, they may seek additional support from their parents, consider relocating closer to them, or have their parents move closer once the child arrives and support becomes necessary (Rutigliano et al., 2023). The irreversible unavailability of at least one parent, in turn, perhaps prompt individuals to negotiate supportive relationships with others in accordance with the functional specificity of re-

lationships model (Connidis & McMullin, 1994). Another possible explanation is that when individuals experience the loss of their parents, having someone who can provide emotional support may help alleviate the grief, enabling individuals to feel adequately supported in managing future childcare-related needs.

We found the evidence of this compensation mechanism for short-term but not for long-term intentions. When reporting intentions over a short period, the respondents are assumed to consider all their life circumstances and obstacles to having a child in the near future. Based on this assumption, our finding might mean that when there is no support to be expected from parents nor anyone else in the near future, having children may seem too much of a burden. In the case of long-term plans, however, individuals may be less concerned about current support networks, since circumstances are likely to change over time, and simply state their intention to become parents. Existing literature also points to short-term effect of parental death on fertility (Dahlberg, 2020). The contribution of our study is that emotional support from others can compensate for this unalterable parental unavailability regarding fertility intentions.

Our research is subject to several limitations. First, due to a relatively small sample size, we were unable to determine whether the effects of receiving support from others on childbearing intentions vary depending on parental vital status, such as recent loss of a parent or growing up without one of the biological parents. Future research utilising larger datasets should focus on investigating these variations among different subgroups. Simultaneous stratification of the models by gender and parenthood status could also yield valuable insights. It is crucial to note that the absence of provided support from others does not necessarily indicate a lack of supportiveness among network members. It could simply mean that support from them was not required within the specific time frame covered in our survey. Future studies could explore alternative measures to better estimate the perceived opportunity to rely on close network members beyond parents. Finally, because fertility intentions, especially long-term ones, not always correspond to fertility behaviour (Morgan & Rackin, 2010), future studies should test whether social support from others relate to childbearing when parents are available and when they are not.

We presented results from Finland, high-income and low-fertility country, that can be classified as pro-egalitarian (Gauthier, 1998). In countries belonging to this group, grandparents are assumed to intervene as caregivers in unexpected situations or when the need for care exceeds what is provided publicly; while in other countries, they provide support because the public childcare system is insufficient. Grandparents' propensity to provide occasional childcare has been found to be positively and significantly associated with their adult children's fertility in pro-egalitarian systems (Rutigliano, 2020). Theoretically, support from network members other than parents has the same function and can be an extra argument for having a child in the near future when individuals estimate costs of parenthood. It was remarkable to find that even when welfare state provides both parents with a high level of assistance for raising children, receiving support from social network members beyond parents is important for fertility intentions. In countries with less extensive public services, the role of this support might be bigger than in Finland. When GGS data is available for all countries participating in Round II, it will be possible to compare the role of parents and others for fertility intentions in different contexts.

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Disclosure statement

The authors declare no conflicts of interest.

Data availability statement

The data that support the findings of this study are available from Statistics Finland through the Population Research Institute (PRI) of Väestöliitto. Restrictions apply to the availability of these data, which were used under license for this study. Data are available upon request with the permission of Statistics Finland and the PRI. GGS-Finland (without links to register data) is available at the GGP website.

Ethical approval

Ethical approval for the GGS data collection in Finland was obtained from the University of Helsinki Ethical Review Board in Humanities and Social and Behavioural Sciences (decision in 2021), and for the register data linkage from Statistics Finland's Board for Statistical Ethics (decision in 2021).

Author contributions

AA developed the conception and design of this research. AA and TS prepared the dataset. AA performed statistical analyses and wrote the draft. AR and VB contributed to the revision of the draft. VB, AH, and TS, contributed to data collection.

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Appendix

Table A1. *Characteristics of the sample*

	Within 3 years	At some point in the future
Intending to have a child		
No	80.76	65.71
Yes	19.24	34.29
Receiving emotional support from others		
No	14.06	14.12
Yes	85.94	85.88
Receiving instrumental support from others		
No	64.18	64.09
Yes	35.82	35.91
Receiving any support from parents		
No	26.27	26.28
Yes	73.73	73.72
Parental vital status		
Both parents alive and known	83.94	83.88
At least one parent is deceased or unknown	16.06	16.12
Parental proximity		
Closest parent within 20 km	51.59	51.45
No parent nearby	43.90	43.97
Unknown	4.51	4.58
Age		
18–25	25.65	25.61
26–30	19.43	19.46
31–35	19.19	19.31
36–40	19.62	19.46
41–45	16.10	16.17
Civil status		
Unmarried	62.85	62.99
Married	32.59	32.47
Divorced or widowed	4.56	4.53
Parenthood status		
No children	62.76	62.80
At least one child	37.24	37.20
Gender		
Men	39.43	39.63
Women	60.57	60.37

Number of siblings		
0	7.03	7.01
1	35.68	35.77
2	31.83	31.81
3+	24.09	24.08
Unknown	1.38	1.34
Having higher education		
No	47.46	47.50
Yes	52.54	52.50
Employment status		
Unemployed	5.80	5.82
Inactive or unknown	21.76	21.70
Employed	72.45	72.48
Religiousness		
Not at all religious	30.02	30.09
Somewhat religious	44.94	44.92
Religious: 6 and higher	21.19	21.17
Unknown	3.85	3.81
Country of birth		
Finland	95.77	95.71
Other	4.23	4.29
Urbanisation of the place of residence		
Very rural	8.55	8.54
More urban	91.45	91.46
Total	**2,105**	**2,097**

Table A2. *Full models: Childbearing intentions, AMEs (SEs)*

	Within 3 years			At some point in the future		
	M1.1 Support	**M2.1 Closeness**	**M3.1 Vital status**	**M1.2 Support**	**M2.2 Closeness**	**M3.3 Vital status**
Receiving any support from parents (ref: No)						
Yes	-0.005			0.051*		
	(0.021)			(0.024)		
Geographic closeness of parents (ref: No parents within 20km)						
Closest parent within 20km		-0.006			-0.037†	
		(0.017)			(0.021)	
Unknown		0.153*			0.111	
		(0.068)			(0.073)	
Parental vital status (ref: At least one parent is deceased or unknown)						
Both parents alive and known			0.034			0.019
			(0.023)			(0.032)
Receiving emotional support from others (ref: No)						
Yes	0.008	0.004	0.009	0.005	0.006	0.012
	(0.026)	(0.027)	(0.026)	(0.030)	(0.030)	(0.030)
Receiving instrumental support from others (ref: No)						
Yes	0.041*	0.041*	0.042*	0.050*	0.059*	0.056**
	(0.019)	(0.019)	(0.019)	(0.022)	(0.022)	(0.022)
Age group (ref: 31–35)						
18–25	-0.163**	-0.162**	-0.167**	0.242**	0.251**	0.243**
	(0.035)	(0.035)	(0.035)	(0.044)	(0.045)	(0.045)
26–30	-0.025	-0.026	-0.030	0.162**	0.165**	0.164**
	(0.036)	(0.036)	(0.036)	(0.039)	(0.039)	(0.039)
36–40	-0.155**	-0.160**	-0.154**	-0.137**	-0.144**	-0.138**
	(0.032)	(0.032)	(0.032)	(0.035)	(0.035)	(0.035)
41–45	-0.238**	-0.241**	-0.237**	-0.250**	-0.252**	-0.250**
	(0.029)	(0.029)	(0.029)	(0.030)	(0.030)	(0.030)
Civil status (ref: Unmarried)						
Married	0.059*	0.052†	0.060*	-0.041	-0.056†	-0.045
	(0.029)	(0.029)	(0.029)	(0.034)	(0.034)	(0.034)
Divorced or widowed	-0.017	-0.024	-0.017	-0.198**	-0.208**	-0.200**
	(0.044)	(0.042)	(0.044)	(0.073)	(0.070)	(0.072)
Parenthood status (ref: No children)						
At least one child	-0.079**	-0.075**	-0.079**	-0.171**	-0.161**	-0.168**
	(0.025)	(0.025)	(0.025)	(0.036)	(0.036)	(0.036)
Gender (ref: Men)						
Women	0.017	0.017	0.016	-0.069**	-0.068**	-0.069**
	(0.018)	(0.018)	(0.018)	(0.021)	(0.021)	(0.021)

Number of siblings (ref: No siblings)						
1	0.066*	0.067*	0.065*	0.050	0.047	0.048
	(0.027)	(0.027)	(0.027)	(0.039)	(0.039)	(0.039)
2	0.073*	0.075**	0.071*	0.060	0.057	0.056
	(0.028)	(0.028)	(0.029)	(0.039)	(0.039)	(0.040)
3 and more	0.087**	0.086**	0.087**	0.098*	0.085*	0.089*
	(0.030)	(0.030)	(0.030)	(0.041)	(0.041)	(0.041)
Unknown	0.193	0.208*	0.204*	0.192	0.201	0.199
	(0.119)	(0.119)	(0.121)	(0.130)	(0.125)	(0.131)
Having higher education (ref: No)						
Yes	0.062**	0.061**	0.060**	0.054*	0.050*	0.054*
	(0.020)	(0.020)	(0.020)	(0.023)	(0.024)	(0.023)
Employment status (ref: Employed)						
Unemployed	-0.075*	-0.074*	-0.077*	-0.152**	-0.150**	-0.156**
	(0.033)	(0.032)	(0.032)	(0.044)	(0.044)	(0.044)
Inactive or unknown	-0.065**	-0.070**	-0.067**	-0.045†	-0.044†	-0.043†
	(0.023)	(0.022)	(0.022)	(0.025)	(0.024)	(0.025)
Religiousness (ref: Not at all religious)						
Somewhat religious	0.022	0.024	0.022	0.077**	0.080**	0.080**
	(0.020)	(0.020)	(0.020)	(0.023)	(0.023)	(0.023)
Religious: 6 and higher	0.037	0.039	0.035	0.123**	0.130**	0.130**
	(0.025)	(0.025)	(0.025)	(0.030)	(0.030)	(0.030)
Unknown	0.040	0.042	0.040	0.029	0.039	0.039
	(0.047)	(0.046)	(0.046)	(0.055)	(0.055)	(0.055)
Country of birth (ref: Finland)						
Other	0.115*	0.016	0.125*	0.095†	0.016	0.016
	(0.055)	(0.052)	(0.055)	(0.054)	(0.066)	(0.066)
Urbanisation of the place of residence (ref: Very rural)						
More urban	0.013	0.013	0.012	0.004	0.003	0.008
	(0.035)	(0.035)	(0.035)	(0.039)	(0.038)	(0.038)
Log pseudo-likelihood	-726.67413	-722.44392	-725.58216	-868.77867	-866.60252	-871.18422
Waldx^2	167.62 (23), p< 0.001	172.44 (24), p< 0.001	169.52 (23), p< 0.001	298.99 (23), p< 0.001	324.29 (24), p< 0.001	300.16 (23), p< 0.001
PseudoR^2	0.121	0.125	0.123	0.263	0.265	0.2614
N of observations	2,105			2,097		

Note: † p< 0.10, *p< 0.05, **p< 0.01.
The models control for each type of parental support separately.

Table A3. *Childbearing intentions (without individuals who are unsure about their childbearing intentions), AMEs (SEs)*

	Within 3 years			At some point in the future		
	Support	**Closeness**	**Vital status**	**Support**	**Closeness**	**Vital status**
Receiving any support from parents (ref: No)						
Yes	-0.012			0.036		
	(0.023)			(0.025)		
Geographic closeness of parents (ref: No parents within 20km)						
Closest parent within 20km		-0.005			-0.022	
		(0.019)			(0.022)	
Unknown		0.161*			0.123†	
		(0.075)			(0.069)	
Parental vital status (ref: At least one parent is deceased or unknown)						
Both parents alive and known			0.033			-0.014
			(0.026)			(0.031)
Receiving emotional support from others (ref: No)						
Yes	0.009	0.006	0.010	-0.001	-0.001	0.003
	(0.029)	(0.029)	(0.029)	(0.031)	(0.031)	(0.031)
Receiving instrumental support from others (ref: No)						
Yes	0.041†	0.040†	0.038†	0.030	0.039†	0.035
	(0.021)	(0.021)	(0.021)	(0.023)	(0.023)	(0.023)
Log pseudo-likelihood	-662.0727	-658.46521	-661.40535	-662.471	-660.01834	-663.5327
Waldx^2	191.72 (23), p< 0.001	196.26 (24), p< 0.001	193.35 (23), p< 0.001	335.94 (23), p< 0.001	364.44 (24), p< 0.001	336.84 (23), p< 0.001
PseudoR2	0.151	0.156	0.152	0.352	0.354	0.351
N of observations	1,799			1,711		

Notes: † p< 0.10, *p< 0.05, **p< 0.01.
The models control for each type of parental support separately. All models adjust for age, gender, marital status, number of children, education, employment status, number of siblings, religiousness, immigrant background, and urbanity of the place. Model estimates for all these control variables can be found in Table A2 in the Appendix.

Table A4. *Childbearing intentions (secondary family members and non-kin), AMEs (SEs)*

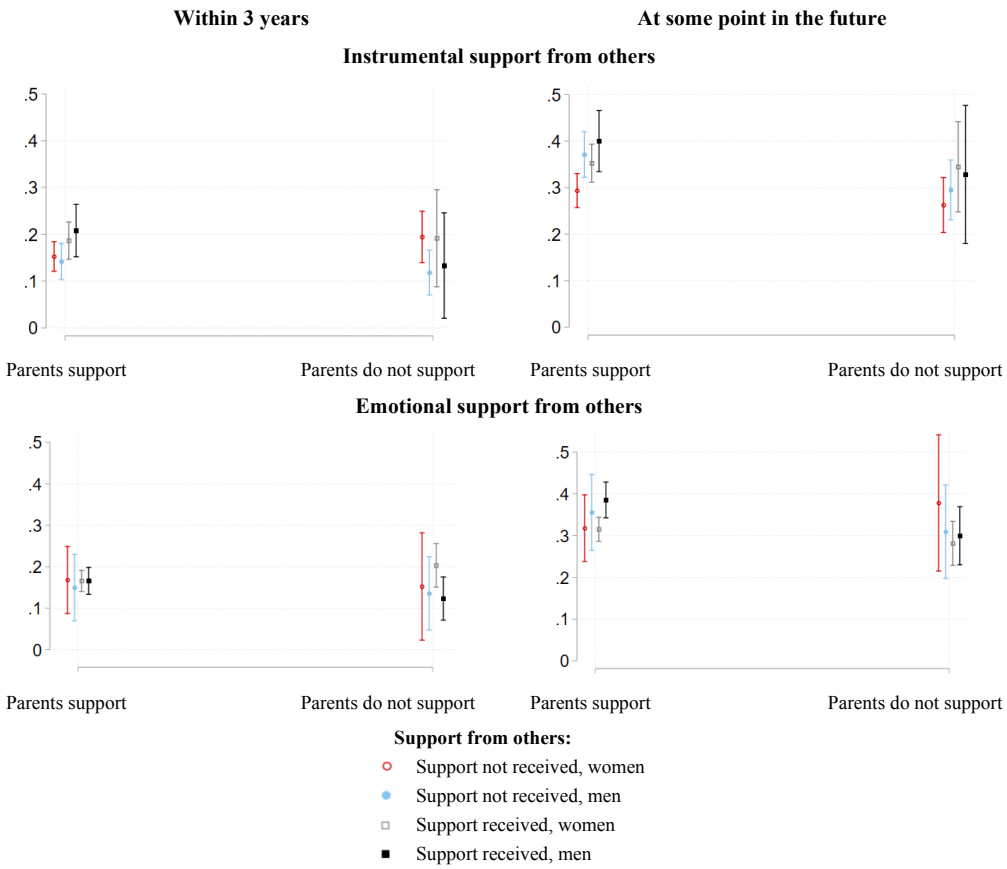
	Within 3 years			At some point in the future		
	Support	**Closeness**	**Vital status**	**Support**	**Closeness**	**Vital status**
Receiving any support from parents (ref: No)						
Yes	-0.003			0.047†		
	(0.021)			(0.024)		
Geographic closeness of parents (ref: No parents within 20km)						
Closest parent within 20km		-0.006			-0.038†	
		(0.017)			(0.021)	
Unknown		0.153*			0.111	
		(0.069)			(0.073)	
Parental vital status (ref: At least one parent is deceased or unknown)						
Both parents alive and known			0.033			0.018
			(0.023)			(0.032)
Receiving emotional support from family members other than parents (ref: No)						
Yes	0.001	-0.003	0.001	0.011	0.018	0.020
	(0.018)	(0.017)	(0.017)	(0.021)	(0.021)	(0.021)
Receiving instrumental support from family members other than parents (ref: No)						
Yes	0.045*	0.046*	0.045*	0.054*	0.063**	0.060**
	(0.020)	(0.020)	(0.020)	(0.023)	(0.023)	(0.023)
Receiving emotional support from non-family (ref: No)						
Yes	-0.011	-0.011	-0.010	0.010	0.010	0.012
	(0.021)	(0.022)	(0.021)	(0.024)	(0.024)	(0.024)
Receiving instrumental support from non-family (ref: No)						
Yes	-0.016	-0.016	-0.016	-0.020	-0.019	-0.019
	(0.032)	(0.031)	(0.032)	(0.041)	(0.043)	(0.041)
Log pseudo-likelihood	-726.24586	-721.96285	-725.23035	-868.18472	-865.54707	-870.20735
Waldx^2	169.75 (25), p< 0.001	174.74 (26), p< 0.001	170.76 (25), p< 0.001	299.33 (25), p< 0.001	320.95 (26), p< 0.001	300.05 (25), p< 0.001
PseudoR2	0.122	0.127	0.123	0.264	0.266	0.262
N of observations	2,105			2,097		

Notes: † p< 0.10, *p< 0.05, **p< 0.01.

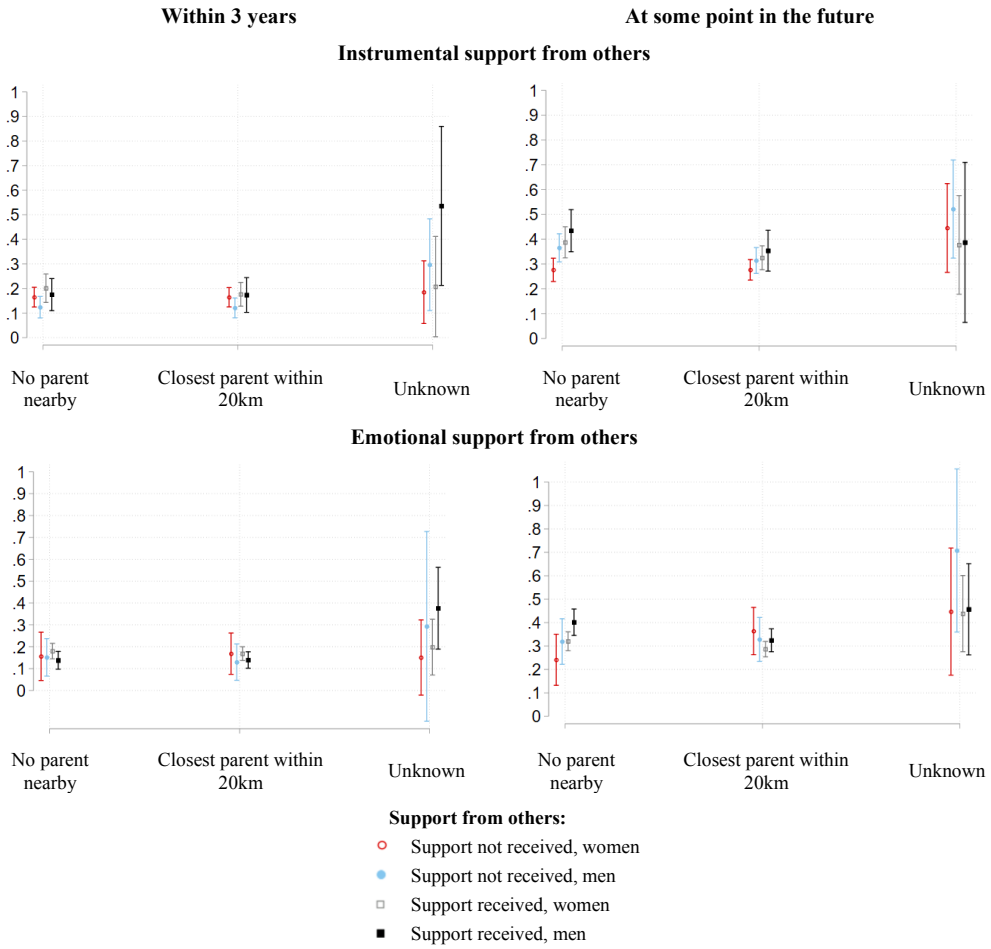
The group 'family members other than parents' could include a son, daughter, step-son, step-daughter, mother, father, step-mother, step-father, partner's mother or step-mother, partner's father or step-father, grandparents (own or partner's), grandchild, sister, brother, daughter's partner, son's partner, partner's siblings, other relative.
The group 'non-family' could include a friend, acquaintance, neighbour, or colleague, and other person.
The models control for each type of parental support separately. All models adjust for age, gender, marital status, number of children, education, employment status, number of siblings, religiousness, immigrant background, and urbanity of the place. Model estimates for all these control variables can be found in Table A2 in the Appendix.

Figure A1. *Predicted probabilities (and 95% CIs) of childbearing intentions within 3 years by gender: interplay between parental availability and receiving support from others*

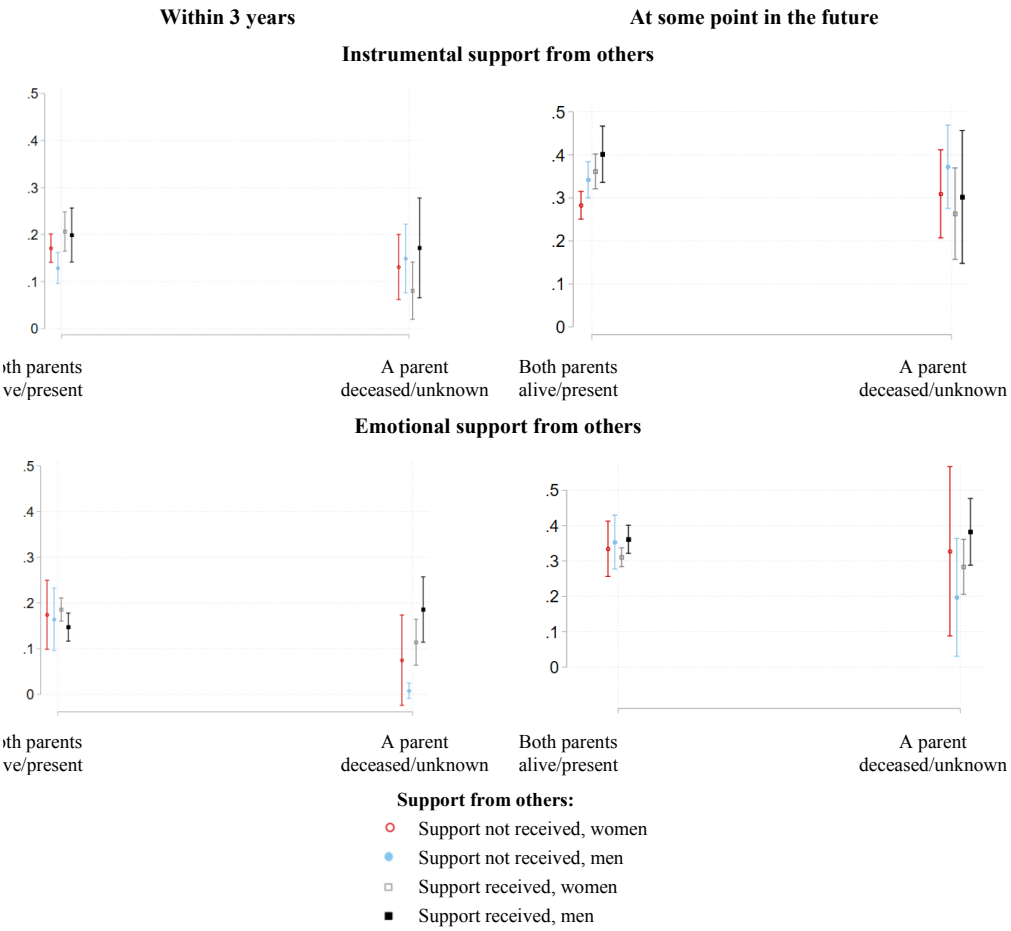
1. *Parental support*



2. *Parental geographic proximity*



3 *Parental vital status*



The models adjust for age, marital status, number of children, education, employment status, number of siblings, religiousness, immigrant background, and urbanity of the place.