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Journal of International Migration and Integration

Provided in Cooperation with:
Springer Nature

Suggested Citation: Milewski, Nadja; Baykara-Krumme, Helen (2021) : Fertility Behavior of Turkish Migrant Men in Europe Compared to Stayers at Origin, Journal of International Migration and Integration, ISSN 1874-6365, Springer Netherlands, Dordrecht, pp. 1-22, https://doi.org/10.1007/s12134-021-00879-1

Journal of International Migration and Integration
https://doi.org/10.1007/s12134-021-00879-1

Fertility Behavior of Turkish Migrant Men in Europe Compared to Stayers at Origin

Nadja Milewski[1,2] · **Helen Baykara-Krumme**[3]

Accepted: 8 July 2021

Abstract

This paper addresses the fertility behavior of Turkish men in Europe from a context of origin perspective. Men of the first and subsequent migrant generations are compared with "stayers" from the same regions of origin in Turkey. We pay special attention to the men's reasons for migration by distinguishing between work and nonwork motivations for migration. We use data from the 2000 Families Study, which was conducted in 2010 and 2011 in Turkey and in western European countries; the sample consists of about 3,500 men. We analyze the transitions to fatherhood as well as to second and third births using event-history analyses; and we investigate the cumulated number of children using Poisson regression analysis. As the men were aged 18–92 at the data collection, we carry out separate models for birth cohort groups. Our findings provide support for the hypothesis of the interrelatedness of events. First-generation migrant men show elevated first birth transitions, which are closely linked to marriage and migration. However, in contrast to the pattern that is often found for women, this effect is observed for labor as well as for nonwork migrants. The rates of transition to a second and a third birth differ less from those of stayers. Analyses of cumulated fertility at age 41 or older further suggest that the migrants' overall numbers of children are smaller than those of the stayers in Turkey. Thus, our findings indicate that there are dissimilation processes and crossover trends among emigrant men characterized by higher rates of transition to family formation linked to migration but lower overall fertility.

Keywords Male fertility · Birth transitions · Turkish migrants · Turkey · Dissimilation perspective

✉ Nadja Milewski
nadja.milewski@bib.bund.de

[1] Institute of Sociology and Demographic Research, University of Rostock, Ulmenstr. 69, 18057 Rostock, Germany

[2] Federal Institute for Population Research, Friedrich-Ebert-Allee 4, 65185 Wiesbaden, Germany

[3] Institute for Sociologyy, University of Duisburg-Essen, Forsthausweg2, 47057 Duisburg, Germany

Published online: 28 August 2021

Introduction

Our paper aims to enlarge our knowledge about the effects of migration on men's family life courses by analyzing their fertility behavior. In general, research on—female—migrant fertility in Europe has increased since 2000, in large part because both researchers and policy-makers have realized that the diversity of Europe's population was increasing due to immigration. In addition, the children and grandchildren of the immigrants who had arrived in the 1950s and 1960s had entered their family formation phases (Adsera & Ferrer, 2015; de Valk & de Milewski, 2011; Kulu & González-Ferrer, 2014; Kulu & Milewski, 2007; Kulu et al., 2019). Different comparative perspectives of migrants were developed, which can be summarized under two main ideas. First, taking assimilation theory as a point of departure, immigrants were compared to their nonmigrant counterparts at destination in order to study whether and, if so, how their family-related patterns become similar (Milewski, 2010). Second, the frameworks of dissimilation and of comparative integration contexts compared emigrants to nonmigrant stayers at origin or to other migrant counterparts in different destinations in order to study whether and, if so, how the fertility patterns of emigrants and/or their descendants become dissimilar (Baykara-Krumme & Milewski, 2017; Milewski, 2011; Wolf & Mulder, 2019).

The numbers of papers on fatherhood among migrant men in Europe (Cantalini & Panichella, 2019) and on fertility among both migrant women and men are very small (Kraus, 2017, Wolf, 2016; Wolf & Mulder, 2019). The few such studies that exist investigated different regional contexts, addressed different outcomes, and focused on the first migrant generation only. Due to data limitations, the empirical methods these studies used are somewhat problematic and their conclusions inconsistent.

Our paper contributes to the evolving literature on fertility among male migrants. We apply the dissimilation perspective to emigrants from Turkey in European destination countries and compare them to stayers at origin. Our research question is how emigration affects fertility patterns of men compared to stayers in Turkey? We also examine how fertility patterns change between the migrant generations. We estimate the transitions to a first, second, and third child and the total number of children born. For our analysis, we employ data from the 2000 Families Study (Güveli et al., 2016), which includes information on individuals belonging to four family generations born between 1921 and 1993. Given that during this period both demographic developments in Turkey and the migration patterns between Turkey and Europe changed substantially due to factors like migration policy shifts, we pay attention to the question of how fertility outcomes vary by birth cohort.

Theoretical Background

The Context of Turkish Emigration

The fertility patterns of Turkish migrants in Europe have been studied intensively, partly because the size of this group is large and partly because the family demographic patterns of these migrants are to a certain extent distinct from those of the majority population at destination (e.g., Cifuentes et al., 2013; Garssen & Nicolaas, 2008; Krapf & Wolf, 2015; Milewski, 2011). In recent decades, most western European countries have reported low or lowest-low fertility levels and have experienced profound social changes related to family and marriage. In these countries, the average age at becoming a parent and the shares of out-of-wedlock childbirths have increased, while the childlessness rates have been relatively high (Balbo et al., 2013). Yet over the same period, large demographic changes have been occurring in Turkey as well (Greulich et al., 2016), including sharp decreases in fertility and slight increases in divorce (Caarls & de Valk, 2017). In Turkey in recent decades, ongoing processes of urbanization and internal migration, rising levels of education, and the implementation of related policies have led to changes in the cost–benefit balance of having children and to the spread of "modern" ideas about the family. Even though large regional differences remain (Ergöçmen, 2012), the general trends toward lower TFRs and an increasing average age at first birth for women are observed across the whole country. We can assume that the pattern among men has been similar, but empirical evidence for men is—to the best of our knowledge—not available.

Turkish migration to Europe strongly intensified as a result of the bilateral recruitment contracts Turkey entered into with various European countries in the 1960s, which involved a strong outflow of low-skilled migrants, as well as large waves of return migration (Akgündüz, 2008). After the legal paths for labor migration were closed in 1973/1974, most of the migration flows to Europe from Turkey took the form of family migration. Families were reunited in Europe, and new families were founded, often with a partner who came over from Turkey (cross-border marriage). Among first-, 1.5-, and second-generation migrants in Europe, marrying a transnational partner is still quite common (González-Ferrer, 2006; Huschek et al., 2012; Kalter & Schroedter, 2010). While the high rates of marriage migration may be attributed to the lack of alternative legal immigration options, this immigration path has also been subject to further legal restrictions in recent years (Aybek et al., 2014). Research has shown that the likelihood of engaging in marriage migration is associated with the sociodemographic, cultural, and family characteristics of both partners in Europe and in Turkey (Abdul-Rida & Baykara-Krumme, 2016; Baykara-Krumme & Fuß, 2009; González-Ferrer, 2007; Milewski & Hamel, 2010). Marriage migration is a highly relevant issue in the study of migrant fertility, as migration for the purposes of family formation leads to elevated migrant fertility, at least among women (e.g., Kulu et al., 2019; Milewski, 2007).

Research on Male Migrant Fertility

In a demographic context in which marriage is almost universal and marriage and childbearing are highly correlated, a separate investigation of male fertility may not appear to provide much additional knowledge. However, developments that are usually attributed to the "second demographic transition" (Van De Kaa, 1987) have led not only to fertility differentials between countries but to increasing fertility differentials between women and men. Such differences may be related to unpartnered women having children without acknowledging and/or notifying the biological father of the birth of the child (Nordfalk et al., 2015). Childlessness rates are higher among men than among women, which may be caused by the "self-selection" of men into fatherhood (or non-fatherhood) and the selection of men by women into fatherhood (or not). This observation coincides with evidence that an increasing number of men are having children with several women, i.e., multi-partner fertility (Lappegård & Rønsen, 2013).

To date, there is no research on the role multi-partner fertility plays in migrant fertility. This may be because union dissolution (i.e., divorce or separation) among migrants has only recently emerged as a research topic and studies on remarriage among migrants are even scarcer. Compared to the patterns in the destination countries, migrant unions are, on average, more stable than those of nonmigrant couples, and the likelihood of remarriage is elevated among migrant divorcees, but there is variation in these patterns by the migrants' country of origin and migrant generation (Andersson et al., 2015), as well as by couple type (e.g., Dribe & Lundh, 2010; Milewski & Kulu, 2014). Remarriage following the death of a spouse has not yet been addressed in demographic studies of migrants. This lack of research on widowhood may be attributable to the western European context, in which remarriage following the death of a spouse mainly occurs among people at post-family formation ages. Multi-partner fertility in the course of widowhood may, however, be relevant in an international migrant context, as immigrants may come from countries with different mortality patterns, including high maternal death rates (Hogan et al., 2010).

Moreover, data problems partially explain the lack of studies on men's fertility. Most demographic and social science surveys collect retrospective information about births from female respondents only, or they collect information only on the children living in the household. These approaches can lead to an underreporting or an underrepresentation of children of men (e.g., if a child lives with the separated mother). Studies on international migrants rarely account for the undercoverage of children due to multilocal family constellations, which may span several countries (Dreby & Adkins, 2010; Mazzucato, 2013). The paper by Cantalini and Panichella (2019) is an example of a study in which the authors were attempting to investigate the fertility of migrant men (in various European countries), but only men who had "(any) children in the household" were covered. Since no data on the men's birth histories were available, this analysis missed the cases in which the men's children were living in a different household or abroad or were (adult) children who had already left the household. Conversely, this study

wrongly included cases in which the children living in a man's household were not his biological descendants. A couple of studies, which have addressed the fertility of male migrants, produced mixed results. In her study on immigrants from Turkey to Germany, Wolf (2016) estimated the fertility transitions for migrant women and men and considered whether couples were reunited or established (marriage migration) in the course of migration. She found that because of the small sample size, the results for men were "too dispersed" to allow her to draw conclusions. Wolf and Mulder (2019) compared migrant men and women from Ghana living in Europe to stayers in Ghana and found that emigrant men had lower first birth transition rates and completed fertility than the stayers at origin, whereas emigrant women had higher fertility.

Working Hypotheses

In our approach to studying men's fertility, the socialization hypothesis serves as a backdrop for the study (corresponding to the null hypothesis). Our hypothetical backdrop suggests that there are similarities between emigrants and stayers at origin and between different migrant generations. It is built on the assumption that the fertility behavior of migrants after their move reflects the dominant fertility preferences and behavior patterns they were exposed to in childhood and that these preferences and behavior patterns are likely to remain stable over each migrants' life course and even over generations, through mechanisms such as intergenerational transmission or socialization in a minority group[1] (Kulu & Milewski, 2007; Kulu et al., 2019; Milewski, 2010). However, studies based on data on emigrants and their origin context showed that for women, the fertility patterns of those who stay in the origin context and those who migrate diverge. For instance, Baykara-Krumme and Milewski (2017) found a crossover in fertility, with emigrant women from Turkey being more likely to proceed to higher parities than stayer women in the origin context. Frank and Heuveline (2005) reported similar findings for US-Mexican migrants. The aim of the current study is to shed light on this pattern by focusing on men. Thus, we develop alternative hypotheses that compete with the socialization hypothesis by predicting that emigrants will be dissimilar to stayers at the country of origin. Such channels of dissimilarity can be related to processes of disruption, selection, or adaptation.

First, much of the previous literature on fertility of first-generation migrants has started with two competing hypotheses that migration has negative or positive short-term effects on their fertility. On the one hand, the disruption hypothesis

[1] The socialization hypothesis was also used as an explanation for persistent similarities in family formation among the Turkish second-generation across different countries (Milewski, 2011). Studies comparing immigrants to natives at destination suggest alternatively that because the socialization in the society at destination may dominate the fertility behavior of migrant descendants, differences between the first- and the second-generation may occur (Milewski, 2010). Our data do not contain information on nonmigrants at destination; instead, we seek to distinguish between the different analytical perspectives, i.e., assimilation vs. dissimilation. Therefore, we chose the similarity between migrant generations as null hypothesis.

suggests that first-generation migrants have particularly low levels of fertility immediately following migration. The psychological stress and economic costs associated with moving, together with the change in environment, the time needed for labor market adjustment, and the separation of the partners may have disruptive effects on the lives of individuals and couples (Kulu & Milewski, 2007). Childbearing may be intentionally delayed until one or both of the partners have found a decent job or completed the migration process. Those migrants who are single at the time of the move may need additional time to adjust to the marriage market (be it at destination or at origin). Hence, childbearing may occur later in the life course among migrants than among nonmobile stayers. While such a pattern of disruption has been observed for certain migrant groups in Europe (Cantalini & Panichella, 2019), this hypothesis has not been supported for first birth transition rates among male migrants from Ghana (Wolf & Mulder, 2019) or among female migrants from Turkey (Baykara-Krumme & Milewski, 2017).

On the other hand, migration may have positive short-term effects on fertility, because most of the empirical literature on women has found that shortly after migration, the birth rates of migrants are higher than those of nonmigrants at destination. This pattern has been related to processes of selection into marriage migration and, more specifically, by the hypothesis of interrelated events. This hypothesis argues that when migration is closely linked with marriage and family proneness (the unobservable desire to form a family), childbearing may start soon after migration (Andersson, 2004; Milewski, 2007). This pattern is especially likely to occur in cases in which the recently arrived spouse has few options for participating in the job market. Hence, parenthood may be accelerated due to low opportunity costs. The previous literature on female fertility has produced substantial evidence that this pattern exists and that it is especially relevant when comparing immigrants to nonmigrants at destination (Kulu et al., 2019). However, when emigrants have been compared to stayers at origin, the results have been mixed. Support for this assumption was found for female migrants from Turkey living in Europe (Baykara-Krumme & Milewski, 2017) but not for women and men from Ghana living in Europe (Wolf, 2016) or for Russian women living in Estonia (Puur et al., 2017).

Regarding the question why disruption effects occur or fertility increases shortly after moving, Mussino and Strozza (2012) focused on the reason for migration. Their study on Italy found support for the claim that marriage migrants and employment-related migrants have different fertility patterns after migration. Women who moved to Italy for family reasons had elevated fertility levels after migration, whereas those who moved for employment-related reasons had lower fertility levels after their arrival. We would expect to find that men's reasons for migration might affect their fertility differentials as well. Our first working hypothesis therefore focuses on the reason for migration (H1). We assume that nonwork migrants, most of whom are family migrants, are more inclined to enter parenthood directly after marrying due to the strong interrelation of marriage and family formation in the family culture; this should result in the fertility of these migrants being higher than that of stayers in Turkey (H1A). By contrast, labor migrants, who often leave their spouses behind when they emigrate, may focus first on getting established on

the labor market. Therefore, the transition rates to fatherhood may be lower for first-generation migrant men than for men living in Turkey (H1B).

Second, the adaptation hypothesis assumes that an individual's current social context, which encompasses both sociocultural and economic factors, shapes his/her fertility preferences and behavior. The new (assimilation) context offers the migrant a different opportunity structure and set of action alternatives to respond to, and a different set of values that s/he may assume or adapt to with time or over generations. This hypothesis has been used to explain the differences in the birth transitions of first- and second-generation immigrants, as well as the greater similarity of the latter than the former group with nonmigrant populations in western European destination countries, and the similarities of second-generation Turks across different European countries[2] (Krapf & Wolf, 2015; Milewski, 2007, 2011). In approaches that compared emigrants to stayers at origin, this hypothesis was used to explain the dissimilarities in the transition to the first child between second-generation migrants and their peers in Turkey (Baykara-Krumme & Milewski, 2017; White, 2011). The so-called dissimilation hypothesis may be linked to adaptation at destinations and modernization processes in family formation patterns more generally, including a later transition to marriage and a reduction in higher parities. Our second hypothesis—referring to birth transitions as well as to completed fertility—is that male migrant children who were at least partly socialized in the western European context, i.e., members of the 1.5 and the second generation, have lower fertility than men living in Turkey (H2).

Third, we consider the impact of the selectivity of international migrants and differences in the composition between the respective groupings on fertility differences. The focus here is on observable socioeconomic characteristics: i.e., how educational participation affects migrants' opportunities in the labor market and their attitudes toward fertility (Balbo et al., 2013). Research has suggested that in the so-called guest worker generation, first-generation migrants had slightly higher educational outcomes than their stayer peers in the same regions of origin in Turkey, although this advantage decreased over time (Güveli et al., 2016). As the question of opportunity costs is still less important for the fertility decisions of men than of women, household economic considerations would predict higher fertility for higher educated men due to their better labor market positions and higher incomes (Becker, 1993). At the same time, however, higher education is associated with demographic modernization trends. Hence, educational differences between the various migrant groups may lead to fertility differences. We also consider marital status as a control variable because fertility is highly related with marriage. There may be compositional differences in the marital status of stayers and migrants, as married men may be more likely to migrate, or migrant men may be more attractive on the marriage

[2] In assimilation frameworks, the process of differences decreasing between first-generation immigrants and nonmigrants is usually referred to as "adaptation," while the process of differences decreasing between the subsequent migrant generations and nonmigrants is usually referred to as the "socialization" of a (migrant) minority group (Milewski, 2010).

market. We account for multi-partner fertility and assume that men in higher-order marriages have a greater number of children than those who were married only once.

Finally, we hypothesize that fertility differentials in both transitions and completed fertility between men living in Turkey and emigrants, as well as between the members of different migrant generations, decrease or disappear when we control for education, marital status, and remarriage (H3). Given the large demographic changes that have occurred in Turkey in recent decades, we also take birth cohort differences into account.

Data and Methods

Data and Sample Selection

Our analyses are based on data from the 2000 Families Study ("Migration Histories of Turks in Europe," Güveli et al., 2016) that were collected in 2010 and 2011. The original sample consists of multigeneration genealogies of male labor migrants and their stayer peers from high-emigration regions in five provinces of Turkey: Acıpayam (Denizli), Akçaabat (Trabzon), Emirdağ (Afyon), Kulu (Konya), and Şarkışla (Sivas). The data collection included a random walk through the neighborhoods during which migrant and nonmigrant men were identified (the "anchor" persons). Households were randomly selected, and for each household, the "anchor" person was defined as a male relative of the household members who was dead or alive at the time of the survey; was born between 1921 and 1946; came from the region under study; and was either a migrant to northwestern Europe between 1961 and 1974 who remained in Europe for a minimum of five years ("migrant") or a man who did not migrate ("stayer"). For each eligible anchor, the data of all his children, grandchildren, and, if of adult age, great-grandchildren were collected. In total, the data collection yielded 1,992 anchors with complete family modules, 5,980 personal interviews, and proxy interviews of 19,666 other family members (Güveli et al., 2016, 26). Life course events such as moves or births were recorded in the yearly information. Our analyses are based on the data gathered in the personal interviews with male members of the lineages, including the anchors themselves, their sons, and their grandsons. Hence, the analyses include migrants of the so-called guest worker cohorts and their stayer counterparts, as well as their descendants who were born in Turkey and stayed there, who later migrated to Europe, or who were born in Europe (i.e., Germany, Austria, Switzerland, the Netherlands, France, Belgium, Denmark, or Sweden[3]).[4]

[3] Theoretically, this dataset should allow us to differentiate the emigrants by their country of destination. In practice, however, the sample is too small to enable us to distinguish between migrant generations, countries of destination, and birth cohorts in the same models.

[4] While some interviews were conducted face-to-face in Turkey, most interviews were telephone interviews. Thus, all randomly selected family members could be interviewed irrespective of their current place of residence.

We differentiated between three categories of "migrant status," which is a time-varying variable: migrant men who emigrated to Europe at age 15 or older (first migrant generation); men who migrated to Europe before age 15 or who were born in Europe (1.5 and second generation); and, finally, men in Turkey who did not emigrate (stayers in Turkey).[5] In the analysis, we then further divided the category of first-generation migrants by considering whether the individuals had a work-related or a nonwork motivation for migration. The personal interview included a battery of questions on the respondent's motives for migrating. The question was "What was your main reason for moving?" The potential answers were "get married/join spouse," "join family other than spouse," "moved with parent[s]/spouse," "moved for a job," "moved for study," "moved for asylum," and "other." Although the motivations underlying migration decisions are complex and intertwined, we considered the "for a job" and "for study" responses as indicators of a primarily economic, work-related migration motivation, and all others as an indicator of rather a nonwork migration.

Dependent Variables and Methods

Our analyses consist of two parts. First, we study the transitions to the first three children. Second, we examine the number of children ever born. To do so, we use four different subsamples.

In the first part of the analyses, the birth transitions, we used techniques of event-history analysis (cox regression models). The results are displayed as the ratio of the hazard rates, i.e., the relative risk of an event occurring in one group compared to in the reference group (Blossfeld et al., 2007). For the first birth analyses, the process time was the age of the man (starting at age 15). We treated the variable migrant status as time-varying: i.e., first-generation migrants spent part of the period they were at risk in Turkey prior to emigration and another part in the respective country of destination after migration. Hence, they contributed to the process time of men living in Turkey from age 15 to the year of emigration from Turkey, and they entered the category of first-generation migrants at the year of their migration. The process time ended with the first birth. If no first birth occurred, the cases were censored at age 75, at the time of the survey interview, at divorce or at widowhood if the first marriage was dissolved, or at return migration. The first birth sample consisted of 3,416 individuals. To measure the transition to a second birth, we selected all men who had one child, and to measure the third birth transition, we selected all men with two children from the respective previous subsample. We focused on those men who, after the birth of their first child, did not (re)migrate to Turkey or Europe. Note that we consider the place of residence of the men, and not of the women, in the year of the birth of the child.

[5] The migration biographies of some respondents were very complex, with several migration episodes between fertility transitions and spanning several countries of destination. Such cases were excluded from our analyses.

In the second part of our analyses, we calculated the cumulated number of children ever born for all men aged 41 or older. To do so, we could not use the time-varying variables for migrant status, as mentioned above. Instead we used a new variable "migrant type." The "stayers" category included only men who were still nonmigrants at the time of the interview, while the "migrants" category included only men who were still living in a European country. The subsample for the cumulated fertility consisted of 958 individuals. About one-fifth of them (23%) were first-generation migrants, 18% belonged to the subsequent migrant generations, and 59% were stayers in Turkey. We applied Poisson regression models in which the coefficients indicated the expected increase in the log count for a one-unit increase in the independent variable.

Our analytical strategy was similar in both parts of the analyses. The first set of models distinguished the men by migrant type and controlled for their birth cohort and region of origin (1). The second set of models also controlled for the men's education, marriage characteristics, and number of siblings (2). The third models were carried out separately for three birth cohorts (3a–c).

Independent Variables and Sample Description

Table 1 provides bivariate statistics of the main independent variables by migrant type for the first birth sample. With respect to their birth cohorts (considered in three categories: 1921 to 1949, 1950 to 1970, and 1971 to 1993), the composition of the sample was rather uneven, which was a natural result of the sampling design and the definitions. Most notably, migrants of the 1.5 and the second generation belonged to the younger cohorts. The educational background was included using four categories. Subsequent migrant generations tended to achieve higher educational outcomes than the first-generation migrants and the stayers in Turkey.

We considered differences by marital status and found that a much larger proportion of the first-generation migrant men than of the stayers were married. Note that the marriage age hardly differed across the groups: the median marriage age was between 21 and 22 for men who stayed in Turkey and never emigrated, as well for all migrant generations. In the first child analysis, we further accounted for marriage duration. As control variables (not shown in the tables), we included the number of siblings as an indicator of the completed parental fertility of the respondent and the region of origin. For the analyses of second and third births, we included as a control variable the age at which the men became fathers for the first time.

In the analyses of the number of children ever born (Table 2), we included all men aged 41 and older at the time of the survey and added the number of marriages as an explanatory variable.

Table 1 Descriptive overview of the sample for the first birth transition among men from Turkey, by migrant status

	Stayers in TR			1st migrant generation			1.5 and 2nd generation		
	Exposure	Exp. (%)	Occurrences	Exposure	Exp. (%)	Occurrences	Exposure	Exp. (%)	Occurrences
Birth cohort									
< 1950	9,139	39.9	789	1,114.5	37.0	182	51	0.7	2
1950–1970	4,887.5	21.3	382	1,090	36.1	150	1,531.5	20.7	141
1971 +	8,882.5	38.8	348	811	26.9	95	5,818.5	78.6	99
Education									
Drop out/primary	12,223	53.4	1,042	1,424.5	47.2	227	710	9.6	45
Lower secondary	2,685	11.7	167	776.5	25.8	90	1,902.5	25.7	82
Higher secondary	4,068	17.8	184	630	20.9	87	3,168.5	42.8	89
Tertiary	3,883	16.9	122	148.5	4.9	21	1,587	21.4	25
Mv	50	0.2	4	36	1.2	2	33	0.4	1
Marriage duration									
Not married	12,789.5	55.8	308	957.5	31.8	39	3,211	43.4	82
Married 1–2 years	2,473.5	10.8	549	468	15.5	139	642	8.7	160
Married 3–5 years	1,678	7.3	407	421.5	14.0	132	398	5.4	100
Married 6 + years	5,968	26.1	255	1,168.5	38.7	117	3,150	42.6	55
Total exposure	22,909		1,519	3,015.5		427	7,401		397
N (persons)	*2,111*			*497*			*808*		

Source: "2000 Families Study" (2010/11), N = 3,416. Note: migrant status = time-varying; mv, missing values; TR, Turkey

Table 2 Descriptive overview of the sample for the number of children ever born for men from Turkey aged 41+, by migrant type (%)

	Stayers in TR	1st migrant generation	1.5 migrant and 2nd generation
Number of children			
0	2.8	2.7	3.5
1	5.5	5.0	4.7
2	21.2	16.0	26.3
3	25.7	37.4	37.4
4+	44.9	38.8	28.1
Average	3.7	3.4	2.9
Main migration motivation			
Work	na	53.4	na
Nonwork	na	46.6	na
Birth cohort			
< 1950	33.1	35.6	1.2
1950–70	66.9	64.4	98.8
Education			
Dropout/primary	61.4	50.7	23.4
Lower secondary	11.3	25.6	35.1
Higher secondary	14.3	19.2	33.9
Tertiary	12.7	4.6	7.6
Mv	0.4	0	0
Number of marriages			
1	90.7	90.4	89.5
2+	6.5	8.2	8.8
Never married	1.8	0.9	1.8
Mv	1.1	0.5	0
N	*568*	*219*	*171*

Source: "2000 Families Study" (2010/11), N=958. Note: na, not applicable; mv, missing values; TR, Turkey

Empirical Findings

Birth Transitions

First Child

Table 3 displays the results for the multivariate first birth transition analyses. We found higher transition rates to the first child for migrant men of the first and second generations than for stayers in Turkey (M1_1). Remarkably, the results showed that both groups of first-generation migrants—work as well as nonwork migrants—had significantly higher first birth rates than stayers. This pattern remained stable when we added an indicator for education to the model (not shown), but first births were closely linked with marriage as the major step in family formation (M1_2). Yet, even after controlling for marital status/marriage duration, the differences between

Table 3 Transition to a first child among men from Turkey (relative risks)

	M1_1	M1_2	M1_3a cohort < 1950	M1_3b cohort 1950–1970	M1_3c cohort 1971 +
Migrant status					
Stayers	1	1	1	1	1
1st-generation work migrants	1.41***	1.33***	1.36**	1.30	1.10
1st-generation nonwork migrants	1.60***	1.21*	1.44	1.01	1.36*
1.5 and 2nd generation	1.12	1.07	0.80	1.06	0.96
Birth cohort					
< 1950	1	1			
1950–1970	0.93	1.13*			
1971 +	0.45***	0.74***			
Education					
Dropout/primary		1.10	1.07	1.05	1.11
Lower secondary		1	1	1	1
Higher secondary		0.93	1.38	0.97	0.87
Tertiary		0.66***	0.88	0.80	0.67**
Marital status/ duration					
Not married		0.17***	0.21***	0.13***	0.14***
1–2 years married		1	1	1	1
3–5 years married		0.89*	1.18	0.93	0.82
6 + years married		0.24***	0.87	0.38***	0.05***
N	*7,290*	*7,290*	*2,725*	*1,777*	*2,788*

*Source: "2000 Families Study" (2010/11). Note: M1_1 controlled for region of origin; M1_2 and M1_3a,b,c controlled for region of origin, number of siblings. Mv not displayed. Baseline: age, starting at 15. ***p < =.001; **p < =.01; *p < =.05; °p < =.1*

migrants and stayers remained. Hence, the higher fertility in these groups could be attributed to some extent to the higher prevalence of marriages and the larger proportion of couples in the family formation phase shortly after marriage, which is in line with previous studies supporting the hypotheses of interrelated events. However, the finding that work and nonwork first-generation migrants had higher risks of having a first child than stayers in Turkey after controlling for marriage suggests that migration was itself positively related to family formation. Note that a majority of the first children of the first-generation labor migrants were born in Turkey (60%), whereas most of the first children of the nonwork migrants (77%) were born in Europe.[6] This finding suggests that among the labor migrants in our study, family foundation, and parenthood often took place in a transnational setting, with the woman staying in Turkey and taking care of the child(ren) while the father worked

[6] The information on the country of birth is not available for all births. Therefore, these numbers are rather rough and approximate measures, and we do not include them in further analyses.

abroad. The "interrelatedness of events"—i.e., marriage, migration and parenthood—thus occurred in a different setting than was generally the case when the fertility of migrant women was considered. For a man, it was highly likely that migration closely followed marriage and that while he was away, his spouse who stayed behind gave birth and raised their first and subsequent children.

For the migrant children—i.e., those who migrated at younger ages or were born in Europe—the results from models 1_1 and 1_2 indicated that they had only a slightly higher likelihood of transitioning to a first child than stayers, and no remaining differences between migrant children and stayers in Turkey were found when their education and marital status/marriage duration were taken into account.

In model 1_3a–c, we studied the three birth cohorts separately. In the oldest cohort of the migrant worker generation, we found elevated first birth risks among both of the first-generation migrant groups: namely, a strongly significant effect for work migrants and a positive, yet (due to low case numbers) nonsignificant effect for nonwork migrants. Emigration clearly elevated the transition to (transnational) fatherhood in this cohort. The results differed slightly in the middle cohort, although the main pattern was shown to be quite robust. We found elevated first birth transition rates for first-generation migrants, but these rates were not as high or as significant as they were in the oldest cohort. Here, marriage came into play. The model without the marriage indicator showed strong and significant positive effects for labor as well for nonwork migrants (1.55, $p < 0.01$ and 1.27, $p < 0.05$, respectively) and for 1.5- and second-generation migrants (1.23, $p < 0.10$, results not shown). Thus, controlling for marriage duration explained a large share of the observed fertility differentials between migrants and stayers.

In the youngest birth cohorts, some significant differences between the groups could be observed. Labor migrants had less empirical prevalence in this group, and their fertility patterns hardly differed from those of stayers. Much more prominent were the other first-generation migrants, as their first birth risks were strongly elevated (M1_3c). In the model that did not control for marriage behavior, the coefficients for first-generation nonwork migrants were even higher (2.23, $p < 0.001$, results not shown); therefore, when information on the marriage patterns was included, the effect sizes decreased. Thus, higher rates of transition to the first child among migrants than among stayers in Turkey were related to differential family formation patterns in the course of migration. This finding suggests that migration, marriage, and first childbirth were strongly interrelated among these men. By contrast, 1.5- and second-generation migrants had lower fertility transition rates than stayers, which indicates that there were different processes of adjustment in the migration context. The control variable for education showed that having a higher education was negatively associated with the transition to a first child.

Second and Third Children

The models for the transition to a second child are shown in Table 4. Due to the small sample sizes for these men, the confidence intervals were large. Therefore, we do not want to overinterpret our findings but will instead discuss trends. The results indicate that the transition was slightly elevated for all migrants (M2_1). Thus, the

Table 4 Transition to a second child among married men from Turkey (relative risks)

	Model 2_1	Model 2_2		M2_3a cohort < 1950	M2_3b cohort 1950–1970	M2_3c cohort 1971 +
Migrant status						
Stayers	1	1		1	1	1
1st-generation work migrants	1.12	1.13		1.12	0.96	0.87
1st-gen. nonwork migrants	1.07	1.09		0.88	1.19	0.83
1.5 and 2nd generation	1.05	1.08		0.63	1.12	0.93
Birth cohort						
< 1950	1	1				
1950–1970	0.74***	0.77***				
1971 +	0.57***	0.60***				
Education						
Dropout/primary		1.07	0.88		1.04	1.33
Lower secondary		1	1		1	1
Higher secondary		0.97	0.71		1.05	0.99
Tertiary		0.96	0.76		1.09	1.09
N	*2,156*	*2,156*		*863*	*650*	*643*

*Source: "2000 Families Study" (2010/11), N = 2,156. Note: M2_1 controlled for region of origin and age at first birth; M2_2 and M2_3a–c controlled for region of origin, number of siblings, age at first birth. Mv not displayed. Baseline: Age of first child. ***p < =.001; **p < =.01; *p < =.05; °p < =.1*

Table 5 Transition to a third child among married men from Turkey (relative risks)

	Model 3_1	Model 3_2	M3_3a cohort < 1950	M3_3b cohort 1950–1970	M3_3c cohort 1971plus
Migrant status					
Stayers	1	1	1	1	1
1st-generation work migrants	0.99	0.99	0.80*	1.26	1.75
1st-gen. nonwork migrants	0.98	0.98	0.69	0.94	1.69*
1.5 and 2nd generation	1.10	1.14	0.43	1.12	1.25
Birth cohort					
< 1950	1	1			
1950–1970	0.39***	0.41***			
1971 +	0.29***	0.31***			
Education					
Up to lower secondary		1	1	1	1
Higher secondary/tertiary		0.80**	0.59*	0.79*	0.95
N	*1,748*	*1,748*	*721*	*590*	*437*

*Source: "2000 Families Study" (2010/11), N = 1,748. Note: M3_1 controlled for region of origin and age at first birth; M3_2 and M3_3a–c controlled for region of origin, number of siblings, age at first birth. Mv not displayed. Baseline: Age of second child. ***p < =.001; **p < =.01; *p < =.05; °p < =.1*

fertility behaviors of migrants hardly differed from those of stayers in Turkey. This pattern changed very little when birth cohort and education were controlled for (M2_2). Education itself did not have a direct significant impact on the transition to a second child whereas cohort had a negative impact. We again distinguished by cohort. Model 2_3a–c shows that the transition to a second birth did not vary significantly by migrant status in each cohort.

Like the transition rates to a second child, the transition rates to a third child hardly differed between stayers and first-generation migrants (Table 5). At the same time, education was found to have a strong independent effect, as men with higher secondary or tertiary education had significantly lower birth risks. However, the effects of the other variables hardly changed when education was considered in model 3_2. Like for second births, we found a time effect with decreasing fertility risks over birth cohorts. Separated by cohort, two findings for the transition to a third child stand out. First, labor migrants had a significantly lower risk than stayers in Turkey, in particular in the oldest cohort. This pattern clearly diverged from the pattern described above for the transition to a second child. In the youngest cohort, we found elevated fertility risks among all migrant groups.

Cumulated Fertility

In the second part of our study, we aim to shed additional light on the fertility patterns of men by studying the cumulated fertility of all men aged 41 years or older. Table 2 displays the descriptive results, including the total number of children for men aged 41 +, by (time-constant) migrant status. The results suggest that among stayer men (who never left Turkey), the share of large families (with four or more children) and the average number of children were higher than they were among migrants. In total, about 7% of men had a higher-order marriage (mostly second marriages), whereas the share of men who never married was 2%. The proportion of men who were married multiple times was about 7% among stayers and was around 8% among first-generation migrants (note: 10% among labor migrants and 6% among other first-generation migrants). Roughly 9% of 1.5- and second-generation migrants had been married at least twice. We do not know the reasons why the marriage ended for all cases, but for those few cases for which we have data, it appears that divorce was slightly more common than the death of a spouse among stayers and in the subsequent migrant generations, whereas among first-generation migrants, the death of a spouse and divorce were almost equally common.

Table 6 displays the results of the multivariate analyses of the number of children born to all men who were aged 41 + at the time of the interview. Indeed, our findings demonstrate that the fertility outcomes were lower overall among migrants and especially among first-generation nonwork migrants (M4_1). These patterns remained quite stable when various control variables were added (M4_2). When we break down the results by birth cohort, it becomes clear that this pattern of lower fertility outcomes among emigrants specifically applied to the men of the migrant worker generation born before 1950. The results of a comparison between the younger cohort (born 1950–1970) and the reference group of stayers instead showed slightly

Table 6 Cumulated fertility at age 41 + (Poisson regression)

	Model 4_1	Model 4_2	M4_3a cohort < 1950	M4_3b cohort 1950–1970
Migrant type				
Stayers	Ref	Ref	Ref	Ref
1st work migrants	−0.08	−0.07	−0.17**	0.11
1st-gen. nonwork migrants	−0.11*	−0.11*	−0.61*	−0.04
1.5 and 2nd generation	−0.03	−0.02	−0.43	0.03
Birth cohort				
< 1950	Ref	Ref		
1950–1970	−0.52***	−0.43***		
Education				
Dropout/primary		0.13**	0.02	0.14**
Lower secondary		Ref	Ref	Ref
Higher secondary		−0.06	−0.45**	−0.02
Tertiary		−0.15*	−0.49**	−0.10
Number of marriages				
1		Ref	Ref	Ref
2 +		0.20***	0.29***	0.14
Never married		−1.22**	−13.9***	−1.09*
Constant	1.62***	1.52***	1.73***	1.06***
N	*958*	*958*	*268*	*690*

Source: "2000 Families Study" (2010/11), N = 958. Note: M1 controlled for region of origin; M2 and M3a–c controlled for region of origin, number of siblings. Mv not displayed

higher fertility outcomes for first-generation labor migrants, but these differences were insignificant. The control variables showed the expected effects. Whereas staying single and having higher education were clearly associated with lower fertility, having multiple marriages was significantly positively associated with higher cumulated fertility.

Discussion

Our study investigated fertility patterns among emigrants from Turkey compared to stayers at origin. For first-generation migrants, we had asked whether their main reason for emigration was associated with their fertility patterns. Remarkably, we found elevated first birth fertility among labor migrants, as well as among nonwork migrants. This finding supports the widely acknowledged hypothesis of interrelated events, according to which migration and family formation are closely linked (H1A). At the same time, the hypothesis of disruption, which predicts the opposite pattern, in particular among work migrants was rejected (H1B).

This pattern of interrelated events among marriage or family migrants is largely similar to patterns described in the previous literature on women. For migrant women, this pattern has been explained by citing a cultural concept of family that strongly links marriage and parenthood and by noting their lack of alternative opportunities in the years immediately after arrival (e.g., due to restricted labor market access). These preferences for family formation shortly after marriage may also explain the observed pattern among migrant men. In contrast to the findings on migrant women's fertility (Mussino and Strozza, 2012), we observed this pattern of elevated first birth risks even among men whose migration was motivated mainly by work (or by education). The differences in the findings for women and men may be attributable to the persistence of gender role norms. First, family formation and parenthood are less likely to prevent men than women from taking up work. Hence, while female work migrants are less likely to have a child after migration, this is not the case for their male counterparts. Second, gender roles and the residential location of the family members may affect women's and men's fertility differently. While we could exploit the information on where the wives actually gave birth in an exploratory manner only, these findings suggest that the family constellations of migrant men and women may follow different patterns: i.e., many of the male (married) migrants may have moved alone, leaving their spouse behind. Such a short- or longer-term transnational family life, with the wife remaining in the country of origin and the husband taking up work abroad, is quite common in labor migration contexts. The new household economic theoretical assumptions on migration decision-making suggest that migrants often pursue strategies of maximizing household income and reducing household risk by sending one family member (temporarily) abroad (Massey et al., 1999). In such a scenario, the notion of interrelatedness of events gains an additional meaning: i.e., in the country of origin, the opportunity for labor-related emigration may increase a man's chances of marrying due to the expected economic benefits of migration for his family. The birth of the first child then follows shortly after the marriage, and the migration of the husband accelerates this process. The wife either stays behind (with the children) while the husband starts working in the receiving country, or she follows later.

Importantly, the pattern of higher fertility transitions was not found to extend to the transitions to second and third children. This finding is not in line with the one for women, among whom a crossover effect—i.e., higher transition rates among emigrants than among stayers—had been found (Baykara-Krumme & Milewski, 2017). In order to investigate this issue in more detail, we estimated in the present study the completed fertility of men. Our analyses on the total number of children revealed that over the whole life course, emigration was associated with a smaller family size. Therefore, we can conclude that international migration increased fertility in the short run—i.e., in the early family formation phase—but that the average family size of the emigrants was smaller than that of the stayers in Turkey. This was found to be the case at least for the older birth cohorts. The patterns were slightly different in the younger cohorts, among whom the rates of transition to a first birth were higher, but whose overall cumulated fertility hardly differed from that of the stayers. Hence, the emigrants' fertility may have been affected by difficulties related to cross-border multi-locality. Recall that we refer here to cohorts whose children

grew up in the previous century, when international mobility was slower, less frequent, and more expensive than it is today and digital communication was not yet widespread. Thus, transnational family life may have contributed to lower fertility.

Testing our dissimilation hypothesis on differences over migrant generations (H2), we found hardly any differences between stayers and men of the 1.5- and second-generation migrant generations. Our results do not suggest that there were dissimilation processes in western European contexts. This observation partially contradicts previous findings for women of higher rates of transition to the first three children, which were interpreted as crossover effects. Here, such a crossover effect was found only for the third birth and was larger in the younger cohorts. When we look at the number of children ever born, the present analyses for men reveal that smaller family sizes increased slightly among migrant descendants. Consequently, when possible, future research should try to complement fertility transition analyses by including completed fertility measures. This seems especially important in origin contexts where average fertility levels are beyond three children, which is often the highest parity transition investigated in studies on immigrants in western European destination countries.

Our last working hypothesis addressed the role of selectivity and compositional differences (H3). The results only partly supported this hypothesis, because the fertility differentials could not be fully explained by education and marital status/marriage duration, which are the most crucial characteristics for selection into migration and the most important determinants of fertility. Our analyses also looked at further family dynamics, i.e., multi-partner fertility due to remarriage. Our results demonstrated that migrant men in subsequent marriages had a greater number of offspring than those who were married only once. While remarriage is not rare in the Turkish context, it is much less common than in western European countries, where divorce and remarriage rates are extraordinarily high. We found quite similar proportions of remarriage among stayers and migrants. Thus, while this variable was not very helpful for explaining the differences in cumulated fertility between stayers and migrants, it turned out to be a highly influential indicator in itself, as it was significantly positively associated with the number of children. We suggest that future research should pay attention to changes in family dynamics, such as widowhood/divorce, re-partnering, and multi-partner fertility in the context of international migration.

While we used an innovative dataset and applied it to a novel research question, we should acknowledge the exploratory character of our study. We could not explore several questions in as much detail because the sizes of the subsamples of the migrant groups were rather small. In addition, the data collection was not designed to investigate a research topic such as fertility, let alone men's fertility patterns. Therefore, we were unable to include certain variables that may be even more important for migrant men than for migrant women, such as longitudinal information on their labor force participation or occupational status, income, or family wealth. It would be highly desirable to address these questions in future analyses. This also requires (transnational) information about where the children were actually born and where they were brought up. To gain a better understanding of fertility outcomes, it is crucial that men's perspectives on family formation are included in

future data collections, not only as partners who are involved in women's fertility-related decision processes but as a specific research subject. Migration and migration policies are highly gendered and affect the life courses of migrant women and men differently (Aybek & Milewski, 2019). Circular and return migration, and how they are linked with family and fertility decisions, should also be taken into account. Given the increase in individual international mobility, fertility and family research in general should be much more open to recognizing the complex interrelations of migration and family biographies in transnational social spheres and how union and family formation, as well as family life more broadly, are affected by legal conditions and policies.

Acknowledgements Financial support from NORFACE Research Program on Migration in Europe – Social, Economic, Cultural, and Policy Dynamics is gratefully acknowledged, and we thank the anonymous reviewers as well as Alicia Adsera for their helpful comments.

Funding Open Access funding enabled and organized by Projekt DEAL.

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