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Criteria of Partner Selection and Factors Influencing the Age at Marriage in the Poznań Province in the 19th and Early 20th Centuries

Grażyna Liczbińska, Anna Kledzik, Renata Koziarska-Kasperczyk

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Abstract: The aim of this paper is to investigate the criteria of the selection of marriage partners in 19th- and early 20th-century Polish lands, focusing on the example of the Poznań province. Individual information about partners was derived from parish and civil marriage registers for 1840-1919 (8,780 couples). In the Poznań province the criteria of partner selection were age, religious denomination, occupational status of spouses and the size of their place of residence. Men with a higher social position married relatively young women. The social and economic position of women were less important in partner selection than those of men. Factors of socio-economic nature influenced the age of spouses entering into matrimony for the first time.

Keywords: occupation, social status, place of residence, marital status, religious denomination

1. Introduction

In relation to contemporary populations, many researchers examine the criteria of partner selection in terms of both biological and psychological factors and those of a cultural nature. Thus, emphasis is put on the role of a partner's broadly understood physical attractiveness and personality traits (e.g. Back et al. 2011; Blond 2008; Brewerg et al. 2007; Buss and Smitt 1993; Currie and Little 2009; Ha et al. 2010; Hume and Montgomerie 2001; Marcus et al. 2003; Rand and Hall 1983; Swami et al. 2010; Welling et al. 2008), economic factors

(e.g. Anderson and Klofstad 2012; Botwin et al. 1997; Chu et al. 2011; Gage and Hancock 2002; Günter et al. 2010; Hatifield and Rapson 1996; Noë and Hammerstein 1994; Pawłowski and Dunbar 1999), age (e.g. Buunk et al. 2002; Buss 1989; Günter et al. 2010; Kenrick and Keeffe 1992), and education (e.g. Mare 1991; Logan et al. 2007; Shackelford et al. 2005; Stevens et al. 1990).

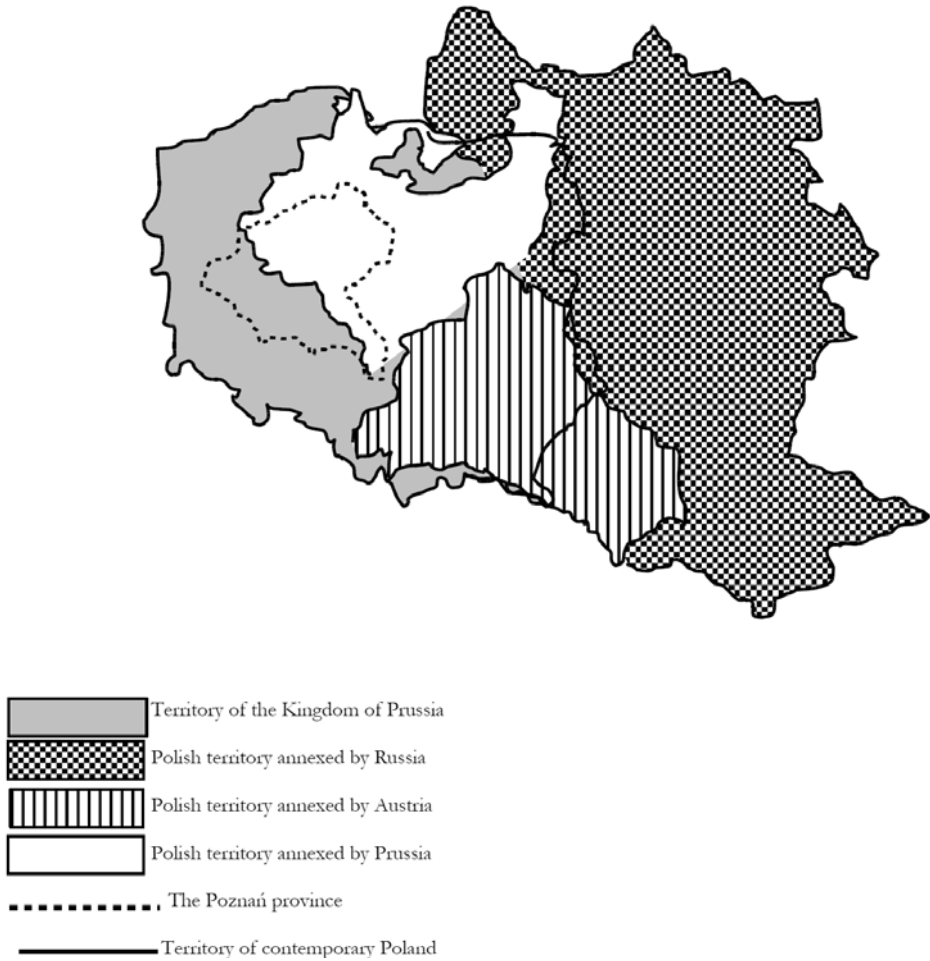
It is an interesting but unexplored question whether in 19th- and early 20th-century populations the choice of a spouse proceeded according to similar criteria as today. With regard to historical populations, the study of partner preferences is a complicated issue, the problem being limited information supplied by the historical material. Limitations of information provided by historical sources make it impossible to study the role of physical attractiveness and psychological traits in choosing a spouse. In this paper we try to investigate the socio-cultural criteria of the selection of marriage partners in the Poznań province in the 19th and early 20th centuries.

2. Material and Methods

The Poznań province was created in 1848 upon the decision of the Prussian authorities. It consisted of the Polish lands incorporated into the Prussian Empire after the Greater Poland Uprising in 1848, and was a part of this state until 1918 (Figure 1). In 1919 according to the Treaty of Versailles, Germany had to return the bulk of the province to the newly established Poland. The territory of the province consisted of two districts: the district of Poznań and the district of Bydgoszcz. Among the population were mainly Poles and Germans, among denominations: Catholics and Lutherans (Kozłowski 2004).

In the study use was made of individual information about spouses. Material was derived from the parish marriage registers of Catholic and Lutheran parishes located in the Poznań province, and from official marriage registers of registrar's office in Poznań. The collected material comprised 8,780 marriage registrations for 1840-1919. The database created contained the following information about partners: name, surname, date of marriage, age at marriage, place of birth, current place of residence, occupation, marital status, religious denomination.

Figure 1. Map of Poland in the 19th century and the beginning of the 20th against contemporary Polish borders



Source: https://pl.wikipedia.org/wiki/Rozbiory_Polski#/media/File:Partitions_of_Poland.png

First calculations were made of the average age and standard deviations of partners at the moment of matrimony by their marital status. Then the average age of spouses entering into matrimony for the first time was calculated according to the socio-economic variables: occupational status of spouses, religious denomination, and size of the place of residence. Concerning “the occupation status” the following categories were distinguished: (1) peasants and workers (e.g. unskilled workers: day labourers, hired workers and lowest-paid jacks-of-all-trades, skilled workers, and farm labourers), (2) craftsmen (including craftsmen and journeymen), (3) intelligentsia (e.g. officials, teachers, accountants, lawyers, doctors, or pharmacists), (4) servants (including servants, watchmen, coachmen, etc.), (5) soldiers. The variable “religious denomination” encompassed (1) Catholics and (2) Lutherans. The variable “size of the place of residence” allowed partitioning of three categories: (1) cities, (2) towns and (3) villages. According to Prussian statistics, towns were areas inhabited by fewer than 20,000 inhabitants (Wajda 1980; Liczbińska 2009a, b, 2015). The variable of “marital status” allowed for separating (1) brides, (2) grooms, (3) widows, and (4) widowers. The material was also divided into four 20-year cohorts by period of matrimony: (1) 1840-1860, (2) 1861-1880, (3) 1881-1900 and (4) 1901-1919. This division was used to verify the changes in the age at first marriage over time. Differences in the mean age at marriage among groups distinguished according to the above-mentioned variables were tested using ANOVA and *post hoc* test. The latter was used for unequal sample sizes. One level of significance, $p = 0.05$, was adopted.

For spouses entering into matrimony for the first time the coefficients of correlation were calculated between the ages of brides and grooms at the moment of matrimony, between their social statuses (determined from information about their occupation), places of residence differing in terms of their size, religious denomination and marital statuses. In addition, correlations between the age at marriage of grooms and the social status of brides and between the age at marriage of brides and the social status of grooms were calculated. All statistical analyses were performed using the STATISTICA package (StatSoft, Inc. 2017; STATISTICA version 13.1, www.statsoft.com).

3. Results and Discussion

3.1. Factors influencing the age at first marriage

In the Polish lands partitioned by Prussia (the so-called Prussian sector) the age of newly-weds was regulated by the Prussian law called the Prussian *Landrecht*. According to *Landrecht* a bachelor could legally marry at the age of 20 and a bride at the age of 16 (Liczbińska 2015). The Prussian law regulated the time of

remarriage. It allowed widows to re-marry 9 months after the previous marriage, and widowers -6 weeks after it (Makowski 1992). There were also local customs and traditions which had a strong impact on the age at marriage (Makowski 1992).

Table 1. Distribution of age at first marriage and re-marriage in the Poznań province in the 19th and early 20th centuries

Marital status	N	Mean age	Standard deviation
Brides	6827	24.98	5.51
Grooms	6521	27.66	4.92
Widow	668	36.94	8.90
Widower	1113	42.43	10.27

Table 2. Changes in age at first marriage over time in the Poznań province in the 19th and early 20th centuries

Period	Brides*			Grooms**		
	N	Mean age	Standard deviation	N	Mean age	Standard deviation
1840-1860	957	25.35	5.61	893	28.33	5.09
1861-1880	2539	25.52	5.86	2368	27.72	5.00
1881-1900	2796	24.50	5.22	2706	27.36	4.80
1901-1919	535	24.26	4.69	553	27.44	4.77

Note: *F = 19.7253, p= 0.0000.

**F = 9.1795, p= 0.0000.

In the Poznań province an average bride married at the age of almost 25 years while an average groom at the age of 27.7 years. Widows and widowers married at the age of almost 37 and 42.4 years, respectively (Table 1). In the Poznań province the age at marriage declined over time (values of ANOVA test for brides and grooms: F=19.7253, p=0.0000; F=9.1795, p=0.0000, respectively). In the case of brides it was observed a decline from 25.3 years in 1840-1860 to 24.3 years in 1901-1919 (Table 2) (*post-hoc* test: p=0.0065), while in grooms: from 28.3 years in the first period to 27.4 years in the last one (Table 2) (*post-hoc* test: p=0.0001). A decline in the age at first marriage was undoubtedly linked with the economic improvement in the region, especially at the end of the 19th century. Improvement in economic conditions made it

easier to decide on starting a family since it opened up more opportunities to gain employment and to be financially independent (Liczbińska 2012, 2015, 2016). In the poorer Austrian and Russian sectors, by contrast, the age of brides and grooms tended to increase over time (Piasecki 1990; Puch 1993; Rejman 2006).

Table 3. Age at first marriage by religion in the Poznań province in the 19th and early 20th centuries

Denomination	Brides*			Grooms**		
	N	Mean age	Standard deviation	N	Mean age	Standard deviation
Catholics	455	23.12	4.73	907	26.81	4.71
Lutherans	1226	23.73	4.79	5612	27.79	4.94

Note: *F = 5.3418, p= 0.0209

**F = 15.8160, p= 0.0000

Many researchers have tried to link the age of spouses entering into matrimony for the first time with their religious denomination (e.g.: Golde 1975; Kemkes-Grottenthaler 2003; Knodel 1988; Liczbińska 2012, 2015; Liczbińska et al. 2018; McQuillan 1999). In our research Catholics married significantly earlier than Lutherans (values of ANOVA test for brides and grooms: F=5.3418, p=0.0209 and F=15.8160, p=0.0000, respectively). Lutheran brides married half a year later than Catholic ones, while a difference between ages at marriage in grooms was of 1 year (Table 3). It seems that the factor “religious denomination” did not influence the age at marriage separately, but jointly with a group of other factors of socio-economic nature, such as: occupation, level of wealth, size of the place of residence, etc. In the Poznań province Lutherans, who were mainly Germans, represented the more affluent part of the society, with better economic and occupational position, than Catholics. They were recruited mainly from rich middle-class, bourgeoisie, entrepreneurs and influential intelligentsia; with the latter group dominated by clerks and officials. Catholics, mainly Poles, were members of the middle-class and workers (Kędelski 1986, 1992, 1994; Liczbińska 2009a, b, 2011, 2015; Makowski 1992; Trzeciakowska and Trzeciakowski 1987). That is why Lutherans needed more time to learn a profession and postponed a decision on matrimony longer than Catholics. The second factor which might also have

played a very important role in postponing a decision on the wedding was migration. The literature has emphasized that migrants married later than natives (Lee 2000; Liczbińska 2015, 2016; Makowski 1992; Oris 1996; 2000; Sharlin 1978; Viegas de Andrade 2010). A large part of migrants to the Poznań province were Lutherans. Their inflow was a part of the settlement policy implemented by the Prussian administration (Kędelski 1994; Liczbińska 2009a, b, 2015; Makowski 1992; Trzeciakowska and Trzeciakowski 1987).

Table 4. Age at first marriage by occupation in the Poznań province in the 19th and early 20th centuries

Occupation	Brides*			Grooms**		
	N	Mean age	Standard deviation	N	Mean age	Standard deviation
Peasants/ Workers	543	24.42	4.94	1515	26.58	4.59
Craftsmen	105	23.75	4.39	1820	27.47	4.67
Intelligentsia	737	22.87	4.55	1225	28.35	5.55
Servants	94	24.36	4.36	749	28.00	4.87
Soldiers	-	-	-	320	28.96	3.62

Note: *F = 11.6873, p = 0.0209

**F = 25.3946, p = 0.0000

In the Poznań province the age at marriage was also shaped by the occupational status of spouses (value of ANOVA test for brides and grooms: F=11.6873, p=0.0209, F=25.3946, p=0.0000, respectively). Brides from workers' backgrounds and the peasantry married at the latest, at the age of 24 years, while women from intelligentsia married the earliest – at the age of 22 years (*post-hoc* test: peasants/ workers and intelligentsia p=0.0000). Women-servants married at the age of 24.4 years (*post-hoc* test: servants and intelligentsia p=0.0101). In the case of men a reverse trend was observed: intelligentsia married at the latest, i.e. at the age of over 28, while peasants and workers - the earliest – age 26.5 (*post-hoc* test: peasants/ workers and intelligentsia p=0.0000). Craftsmen married 1 year later than peasants and workers (*post-hoc* test: peasants/ workers and craftsmen p=0.0000). Also servants and soldiers married aged 28 and over (*post-hoc* test: peasants/ workers and servants and soldiers p=0.0000, p=0.0000, respectively). The ages for brides and grooms by their occupation are presented in Table 4. It seems that girls from more affluent families married earlier, after completing home education, while those from poorer families - later, after collecting funds for the wedding party. In the

Polish tradition, the wedding party usually took place at the residence of the bride's family. That is why girls' families needed funds for it. Men by contrast needed more time to learn a profession and therefore decided to postpone marriage (Liczbińska et al. 2018).

Table 5. Age at first marriage by place of residence in the Poznań province in the 19th and early 20th centuries

Residence	Brides*			Grooms**		
	N	Mean age	Standard deviation	N	Mean age	Standard deviation
Cities	2558	25.59	5.61	2203	28.27	5.22
Towns	1040	25.11	5.66	862	27.50	4.88
Villages	2911	24.36	5.38	3164	27.35	4.74

Note: *F = 34.4856, p = 0.0000

**F= 23.5229, p = 0.0000

Both brides and grooms from cities married later than those from villagers (values of ANOVA test for brides and grooms: 34.4856, p=0.0000 and F=23.5229, p=0.0000, respectively). The brides from rural areas married at the age of 24.4, an average of 1.2 years earlier than the girls from cities (Table 5) (*post hoc test*: p=0.0000) and few months earlier than those from small towns (Table 5) (*post hoc test*: p=0.0051). Grooms from cities married 1 year earlier than their peers from villages (Table 5) (*post hoc test*: p=0.0000) and few month later than those from towns (Table 5) (*post hoc test*: p=0.0028). City dwellers usually needed more time to learn a profession than their peers from rural areas. In villages the family was started earlier than in cities which was usually associated with the taking over land from parents (e.g. Brodnicka 1969; Daszkiewicz-Ordylowska 1995; Liczbińska 2015, Liczbińska et al. 2018; Spychala 1995; Warach 2013).

3.2. Criteria of partner selection

In the Poznań province age was one of the criteria of the selection of marriage partners. It was confirmed by the statistically significant value of the coefficient of correlation (Table 6). The literature also confirms the role of age in spouse selection with regard to other historical populations (e.g. Domzól 2002; Liczbińska 2015, 2017; Piasecki 1990; Puch 1993; Warach 2013), and contemporary ones (e.g. Buunk et al. 2002; Buss 1989; Günter et al. 2010; Kenrick and Keeffe 1992). A positive value of the coefficient of correlation

indicates that young men tended to prefer and choose a young wife more often, and vice versa. The next criteria of the partner selection in the Poznań province in the 19th and early 20th centuries were their religious denomination, occupational status, place of residence and marital status (Table 6). Marital status was strongly associated with age, which usually meant that marriages were contracted between young women (brides) and young men (grooms). Marriages were less often between brides and widowers or grooms and widows (Liczbińska 2012; Rejman 2006; Zielińska 2012).

Table 6. Relationship between age, denomination, occupation, place of residence and marital status of brides and grooms entering into matrimony for the first time (the Poznań province, 19th and the 20th centuries)

Variables	Coefficients of correlation (r)*
Age	0.3637
Denomination	0.8500
Occupation	0.1245
Place of residence	0.6883
Marital status	0.1930

Note: * all r values are statistically significant, $p=0.05$

Since the Poznań province was a region where the Catholic and Protestant religions predominated, mixed marriages occurred here. In the Protestant church the issue concerning marriage with a partner of another religion was regulated by the Prussian *Landrecht*, which stipulated that the children of such marriages should be brought up in the spirit of the father's religion. Lutherans making decisions about marriage with a non-Lutheran partner were required to remain faithful to God and the church in personal life and to introduce into home and family the spirit of the Lutheran religion (Liczbińska 2012, 2015; Makowski 1992). Moreover, in the Protestant church it was easier to obtain consent for marriage with a partner of another religion than in Catholic communities because it was enough to get a dispensation granted at the request of those involved (Liczbińska 2012, 2015; Zielińska 2012). Although in the Poznań province as a whole the Protestant-Catholic marriages constituted over 11% of all marriages contracted (Liczbińska 2015), people looked for a potential spouse within the same religious circle. In this research it was confirmed by the statistically significant positive value of the coefficient of correlation (Table 6).

A significant positive value of the coefficient of correlation for the occupation of spouses entering into marriage for the first time confirms that in the Poznań province people looked for a potential spouse in groups of a similar or identical social or occupational status (Table 6). This issue becomes complicated when we examine the relationship between the social status of grooms and the age of brides. It is negative, as shown by the negative value of the correlation coefficient (Table 7). In other words, the higher the social status of grooms, the younger the women they chose. By contrast, the relation between the social status of women and the age at first marriage of men was statistically insignificant (Table 7). Given the biological theory of partner selection, this fact can be expected since women look mainly for a high social position and wealth in men, while men look for physical attractiveness and youth in women. Thus, men with a higher social position should marry relatively young women. On the other hand, a woman's position or wealth was less important than in the case of man. The results are confirmed by the biological theory of mate selection for contemporary populations (e.g. Anderson and Klofstad 2012; Botwin et al. 1997; Buss 1989; Buunk et al. 2002; Chu et al. 2011; Gage and Hancock 2002; Günter et al. 2010; Hatifield and Rapson 1996; Kenrick and Keeffe 1992; Noë and Hammerstein 1994; Pawłowski and Dunbar 1999).

Table 7. Relationship between the social statuses of grooms and brides and their ages at the moment of first marriage (the Poznań province, 19th and the 20th centuries)

Type of relationship	Coefficient of correlation (<i>r</i>)
social status of grooms and the age of brides	- 0.125*
social status of brides and the age of grooms	0.001

* *r* value statistically significant, $p=0.05$

Many studies have shown that social and economic status played a very important role in choosing a spouse. They stress poor social mobility of partners in the 19th century (Daszkiewicz-Ordyłowska 1995; Iluk 1998; Kowalska-Glikmann 1971; Kwapulińska 1995; Makowski 1992; Mikulski 2002; Modrzewska 1948; Rejman 2006; Sychała 1995). In the first half of the 19th century, in the capital of the Poznań province – the city of Poznań – landowners usually married daughters of officers and officials, representatives of learned professions, craftsmen, merchants, and lower office workers. High-ranking officials and officers as well as representatives of learned professions found wives within their own occupational groups. It happened, however, that

the latter also married girls from lower social strata: daughters of merchants and small landowners. Through such a wedding women usually gained prestige in the social hierarchy, while men often enriched themselves with the dowries of their wives. Merchants and property owners often sought partners in the handicraft circles because there were no major social and economic differences between those two groups. The same concerned the so-called 'intellectual professions', whose representatives married women from handicraft families (Makowski 1992). In the city of Poznań craftsmen were the most hermetic social group. The overwhelming majority of them chose wives from their own environment since they mainly wanted to merge their own workshops with those of the future bride's father. However, with the craftsmen's standard of living decreasing over time, they were also forced to seek wives in lower social groups. Very often they married daughters of peasants or journeymen. Daughters of peasants married servants, journeymen or labourers (Makowski 1992). The situation was similar in the city of Toruń in the 19th and early 20th centuries. According to Zielińska (2012), men chose future wives from their own social group, i.e. from an environment with a similar socio-economic status. Usually those from worker and peasant families had very limited possibilities. Also in the case of wealthy Toruń inhabitants marriages were limited to the intellectual and trading élite, with access by lower social groups closed (Mikulski 2002). In Warsaw, in the second half of the 19th century artisans, journeymen and labourers chose wives from the same occupational groups (Kowalska-Glikmann 1971). In general, in the 19th century, especially in its first half, the rule was as follows: the richer the occupational (social) group, the less flexibility in the choice of a spouse (Daszkiewicz-Ordylowska 1995; Iluk 1998; Mikulski 2002; Sychała 1995). In the villages of historical Polish lands an important criterion of partner selection was also their position in the community, determined usually by land ownership. Here, too, marriages were usually contracted within the same social group (Rejman 2006). The size of the place of residence was also important in spouse selection (Table 6). Villagers usually married with partners from rural areas, while city dwellers searched for a partner in cities (Liczbińska 2015).

4. Summing up

1. The age of spouses declined over time: from 28.3 years to 27.3 years in grooms and from 25.3 years to 24.2 years in brides.
2. Lutherans married later than Catholics.
3. Men from peasantry and labourers married the earliest (26.5 years), and the latest those from the intelligentsia, servants, and soldiers (over 28

- years). In the case of girls, the earliest married those from intelligentsia (22 years), the latest – from peasantry, workers and servants (24 years).
4. Villagers married earlier (boys and girls: 27 years and 24 years, respectively) than city dwellers (boys and girls: 28 years and 25 years, respectively).
 5. On the lands of the Poznań province the criteria of partner selection were: age, the socio-occupational status of spouses, religious denomination and place of residence.
 6. Young men tended to prefer and choose young women more often, and vice versa. Men with a higher social position married relatively young women. The position or wealth of women were less important in partner selection than those of men.

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Children of Global Families

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Abstract: In this paper, we shall present three families children are raised within while developing multiple hybrid identities (Vathi 2017). The main characters in our study are children, two of them born in Romania, five in Belgium, all living in transnational families in Mons, Belgium, but also ethnically mixed: ethnic Hungarian mother from Romania and Romanian father; ethnic Slovak mother from Romania and Slovak father; Romanian mother - ethnic Hungarian father from Romania. These global families (Beck 2012) are raising their children confronting all such cumulative differences.

Keywords: global families, hybrid identity, multi-ethnic family

1. Theoretical framework

The present article is inscribed in the recently increasing research interest in the question children within transnational families, the new actors of transnational families (Telegdi-Csteri and Ducu 2016). This interest in the topic has been manifested in the publication of such prestigious volumes as those signed by Spyrou and Christou (2014) Nagasaka and Fresnoza-Flot (2015), Seeberg and Goździak (2016). Also, the heat in the field could be noticed in the emergence of such journal special issues as White et al. (2011), Mazzucato and Schans (2011), Gardner (2012), Menjívar and Schmalzbauer, Carling (2012) that have been covered this topic.

More specifically, this study concerns children from Romanian transnational families; this is a heavily understudied segment of the above sub-field, but one with a very large impact and importance - given the high number of Romanian migrants and the high variety of migration situations their children become involved in. What did happen in the academic arena in this respect has been the study of the situation of children left behind - the most

important group from a domestic social-political viewpoint - and therein, some more specific issues have been crayoned.

Talking about family - and of children therein - one cannot avoid but quite explicitly formulate these issues in a terminology of emotions, while these emotions are put into a more or less clear normative context - one of normality, or one of exceptionalness, at times. The issues crayoned are hence mostly inscribed into a commonsensical approach concerning the emotional rights of migrants' children - such as describing the emotional impact of the separation from their parents, the effects of parents' absence upon the education of these children (Robila 2011; Bezzini 2013; Botezat and Pfeiffer; 2014; Sănduleasa and Matei 2015; Popa 2016), - but into the alternative retrospective stance of youth raised in such circumstances upon their experience of a childhood with their parents abroad (Rentea and Rotărescu 2016) - one that is not something directly deducible from the emotional economy of a sending community.

At the same time, migration of Romanians - including those in the paper at hand - is typically within the EU, and increasingly with the entire family, a phenomenon called "Intra-European family migration", whereby the situation of children is obviously highly delicate, and barely studied, one example being Moskal and Tyrrell (2015), while another one worth mentioning being the volume edited by Valtolina in 2013. Emotional contents are expressed on studies addressing children's relationship with the target country of migration (e.g. Italy - Valtolina et al. 2013; Spain - Trias et al. 2013) or the one with the country of origin (Bratu 2015). However, children in Romanian transnational families situated outside of the EU - hence in an emotionally more complex situation - are almost absent from academic discourse.

What precipitates in children's lives as emotional hardship has a mental structure on the level of the lives of families. "The open-ended orientation of many of the families allows diverse future scenarios" (Moskal and Tyrrell 2015: 464,) therefore "certain types of childhood fit into, are shaped by, and shape certain types of society while other types of childhood go with other types of society". (Seeberg and Goździak 2016: 3). While such structural frameworks of migration are a given, migration itself, as a real-life experience "places children in new social and relational contexts, different in terms of family and friends they can rely on in their everyday lives" (Sime and Fox 2014: 15). For example, for those children who experience migration at the point in their life when they are already at an educational institution, one important - mental, practical, social, but also emotional - issue is switching between educational systems - including the specific communities - of different countries. In the present

paper, moreover, we deal with family with a multiple degree of mixedness, situated in another than their home country, hence their children face an imperative of coping in a multi-layered, sophisticated manner that is near impossible to describe through a commonsensical economy of emotions.

A great example of the idea behind fact that “mobility has also been described as some sort of mental process rather than a physical process ” (Winther 2015: 215) - and a future-oriented mental structure above that - are the dreams about migration of children from Ghana (Coe 2012), who, although never having left their country, are already in this state of physical mobility through these future projections. The dimension of time that is most fundamental for the creation of agency - namely, the future - can often be associated, in the case of children in the context of migration, with their projection not only of departure, but also of returning, hence with a sense of belonging to their country that is affective, rather than administrative. Naturally, this is so in the case of Romanian youth as well - including those born in Romania and raised abroad, the so-called 1.5 generation - who develop a variety of relations with the home country, proving the complexity of possible structures of attachment.

On the background of a general emotional continuum - closely tied to the feeling of belonging to a certain country, locality, community, family -, we discover what we may call the “identity” of these children who are in-between countries; this identity is however strongly mediated through language, as well as by such things as dressing style and virtually even skin color (Rysst 2016). Therefore, these children obviously develop something more complex than what could follow from a commonsensical economy of emotions of, for that matter, of identities, namely, some kind of a “hybrid identity drawn from everyday cultural practices and a combination of the host country and home country culture” (Vathi 2015: 63) that differs from case to case and resists any attempt to be levelled.

Let us mention, at the same time, - while talking of children’s emotions, allegiances, “identities” - that this paper is a discourse imposed upon children’s life-world, being written from the perspective of adults, and the children being quite admittedly treated as its objects of study, having a voice only through that of their adult relatives, not as its subjects speaking from a first-person perspective. Moreover, in the usual set-up, transnational parenthood tends to be seen from the perspective of departed parents and their relationships with children at home only - meaning this is not only a mediated voicing of children’s stances, but even a one-sided analysis of their situation as a whole. Hence, we may expect different testimonies even through adult voices than the

ones we are used to once we include migration into the experiential field of families, children included, for the reasons below.

All migrant parents joined by children who intend to live for some amount of time in a country “do” in fact something like transnational parenthood, given that all the practices surrounding parenting - from birth, if it is the case, to child-raising and education - are submerged in a transnational setting between the country they are in and the one they will be in: from prospective citizenship, language or decisions concerning the education system. In other words, the transnational perspective is not restricted to long-distance parenting, on the contrary, it includes the joined migrancy of parents and children.

At the same time, ‘transnational parenthood is affected in gender-specific ways’. (Carling 2012: 193). This represents a further restriction over those mentioned above, namely, here we may follow the line of thought saying that transnational families means transnational parenting, transnational parenting means long-distance parenting, and this means transnational motherhood at a distance. Mothers are thus considered prominently responsibly for transnational parenthood - by peers, society and academia - and the introduction of the perspective of fathers has barely begun (Mazzucato and Schans 2011). The perspective of children comes to complete this picture as well.

This situation concerning parenthood as motherhood isn’t any different in what concerns Romanian transnational families. Here too, “mothers are the ones considered the main provider of emotional closeness” (Robila 2011: 331), the fathers apparently get less involved or sometimes just for a pretext, such as in the case related by. In order to fulfil their return wishes - as Vlase (2013) illustrates - fathers may use children’s education as an argument for the family’s return: “the real reason for return is the husband’s preference, while the children often serve as justification” (Vlase 2013: 754). However, this is only one side of the picture and is not telling of fatherhood beyond this negative aspect. In order to get an integrated picture of the emotional dynamic of Romanian transnational families, fathers’ and children’s voices need equally be made audible.

To the better, as the example of Romanian parents raising their children in Italy shows, “some Romanian interviewees reported having egalitarian ideals, despite asymmetrical practices” (Santero and Naldini 2017: 10). However, this is only a tendency and the bulk of mothers remain responsible for raising the children. “Romanian fathers appeared more likely to rationalize the gap between egalitarian ideals and asymmetrical practices in terms of different”

(Santero and Naldini 2017:10.) (biological) predispositions between men and women. Indeed, the present paper confirms the predominant interest of women within the family for childraising and education, as the primary respondents with such concerns within our research - the emotional aspect hence remains asymmetrical, too.

2. Methodological framework

This article uses three case studies to illustrate children's ways of living within these global families (Beck 2012).

We are dealing with the perspectives of three mothers raising children within this type of family. We have chosen the testimonies of mothers confronting the challenge of a multi-ethnic childraising style in a foreign country: ethnically mixed couples raising their children in Belgium.

Enikő is an ethnic Hungarian mother, a Romanian citizen, married to a Romanian man, with two children: one born in Romania, the other in Belgium. Lilla is an ethnic Slovak mother, a Romanian citizen, married to a Slovak citizen, with four children, all born in Belgium.

Adina is a Romanian mother, married to an ethnic Hungarian man who is a Romanian citizen, with a child born in Romania, being raised in Belgium. In what follows, we shall listen to the perspectives of these mothers on the way they raise their children in such families, in order to understand the complex articulation of their children's lives within global families, who are building hybrid identities (Vathi 2015).

3. The stories of global childhood

These children are ethnically or nationally mixed as well as situated in a state of temporary transnational suspension (Ducu 2018). Mixed here means they have a father and a mother of different ethnicities, from the same country, or of different nationalities: an ethnic Hungarian mother and an ethnic Romanian father, both of Romanian nationality; a mother of Romanian nationality and a father of Slovak nationality, both ethnic Slovaks; and an ethnic Romanian mother and an ethnic Hungarian father, both of Romanian nationality. These mothers raise their children for a limited but unspecified period in Belgium with the aim of coming back with them to Romania. Beck (2012) used to use the term "global families" to define ethnically mixed and transnational families. In the case of these children who find themselves part of both situations at the same time, we can safely say that we are dealing with global childhoods.

3.1. A Romanian brother and a Belgian sister

Enikő (ethnic Hungarian from Romania married with an ethnic Romanian from Romania) tells the story of her children, Alin (born in Romania) and of Ella (born in Belgium):

“In 2009, I was pregnant, in the first month, I guess, something of the sort, so I didn’t even look (for a job, a.n.). Why? Because I wanted him to adapt, Alin was to enter the first grade (...) and I wanted to teach him, I couldn’t [look for a job], had no place to leave him, actually. I had come to find him some extra-curricular activities, I mean, something to help him, so we both stayed, we wandered through Brussels. Those times were really fun, and we had decided that I would stay until September. In September I was already pretty pregnant to be looking for a job, you know? And I didn’t try to. And Ella was born and I stayed with her pretty long. So that’s about how I left [Romania]. And we lived in Brussels for two years, and then I said it was already pretty long since Dragoș had been commuting to here and we moved over. That is about how we came. (...)

Yes, Alin had been in kindergarten in Romania, he was, poor him, at the Romanian group, [then at] the Hungarian and [then] the German group, and was prepared to get in... we had waited so much for him to give his exam, to get into the German group, so that he may understand something. Anyway, I don’t know if he understood anything, hence whether that stuff had some kind of goal and [whether] he could have entered the German school... (...) The teacher showed me a child of colour and told me he was the most Belgian of all (laughter, a.n.) and that his mother was Romanian, meaning of Romanian background, you get it? Just that you realize how Belgian they were. There were quite a lot of Poles, Indians, I don’t know what [ethnicities] exactly. And I said, [this is thus] since at them there is no difference, unlike at us. At us: my child should go to the best of the best school and you struggle until...

Ella was born in Brussels, yes. Until she turned one, say one and something, we stayed there. (...) The system here... so, at two and a half they start a kind of school. (...) She was in fact in a “reception” class. They receive them at two and a half, if you are lucky, and from three they really ought to go. (...) She is practically in her fourth year of being institutionalized, something of the sort... She started the first grade in French here. (...) Yes, directly in French. She speaks, I mean Alin also speaks very well. The natives tell me, I have a very good Belgian friend, and she tells me that with Alin, she can hear it [the

accent], but with Ella, she cannot, since she is native, you know? (...) Yes, Ella speaks Hungarian, and Romanian, and French, and also speaks English, you know? She surprised us! (...) Yes, they speak some, since it is easier for them, just as my native language is Hungarian, my people at home used to speak Hungarian, but me and my sister often spoke Romanian. And now it is happening to me.

Now and then [she speaks Hungarian as well], I mean she mostly speaks Romanian when we are all together, since Dragoș (her husband, a.n.) (...) doesn't speak it well, he does understand it, that's why I am saying that Hungarian is the third and will become the fourth language for Ella. That's that, 'cause you can't! I was just talking with some [female] colleagues... there are lots of mixed marriages around here, it doesn't matter who [comes together] with whom, but there are [many], and the linguists said that one should about stop at the third language. And we are [over that]: Alin at the fifth, Ella at the fourth, and you can't keep up, and I can feel the drawback. I mean I am also speaking English, French, you cannot keep having the depth in one language if... you know?

Alin used to come home, used to come back by plane and told me (on the plane, a.n.): "Mom, I want to my Belgium, I can hardly wait to get to my Belgium!" I don't know why he wanted so much to his Belgium, since they love it hugely in Romania and..." (Enikő).

3.2. Belgian brothers with a Romanian mother and Slovak father

Lilla (ethnic Slovak from Romania, married to a Slovak) tells the story of her three sons who consider themselves Belgians having a Romanian mother and a Slovak father

"[we travel to Romania] Very much! Whenever we can, we travel and the children feel very well there. Well, we also got used to it here, I am not saying. I am very surprised, I have never thought about this, that we got used to it like this, maybe because... it is so... wow! Since it is multi-culti [a nickname for "multicultural"] and I never had the impression that I am a stranger here. I don't know, it was the first country where [I haven't felt like a stranger]... 'cause we also left to Slovakia, where there was the Slovak language, but still, I was from Romania. Here I have the impression that it is something entirely different. So...: yes, all [were speaking different languages]. When I came [here], in fact, when my husband came here, he was [here] about a year

without me, I was still working in Slovakia, and when I came I was already pregnant with the first [child]. (...) I speak Romanian with the boys.

'Cause I wanted very much for them to learn Romanian, since they travel a lot to Romania, even if at Nădlac (her native village) they speak Slovak in the store or wherever you go, but we travel [there] and I want him to speak it. My brother's wife is also, in fact, Romanian-Romanian, doesn't speak Slovak, so... for me it was very important that he speak Romanian, therefore I speak Romanian [with him]. But what is very interesting, with Oliver, the third, I don't know why (laughs), I started speaking Slovak, I mean when they were babies we were all speaking [Slovak], and suddenly, at about half a year, eight months, when they spoke the first words, I said to myself: "Zap! Change..." [to Romanian], since for me it is... pretty much the same, I mean it is just as natural to speak, even though when you do your studies in one language... Yes, the terminology, but so, to speak, no, since I spoke [Romanian] with my mom at home. So we all started to speak Romanian, at about eight months, and Oliver is two now (...) and somehow I stayed with Slovak with him, I don't know why. I mean I do know, since he started to speak very early... Yes, he speaks very well at two. He really speaks very well, fluently! And I didn't manage (...): I didn't have the time and it is more difficult [now] since, for about two weeks, I have been speaking Romanian with him, and he would answer me in Slovak, but I was telling my husband that he understands everything. Listening to me as I was talking to the brothers in Romanian, for him it is just a matter to let himself go, so... Romanian. And my husband speaks Slovak with them and we speak Slovak in the house, if we are all together.

Yes, but I think it is also because that, since we have that mix of friends, as I said. If we had more Romanian friends, they would feel more Romanian or more Slovak, like this, they say: "Mum is from Romania, Dad is from Slovakia", if someone asks. And they are from Belgium. "But we also speak Slovakian, as well as Romanian!", they say (laughs). I think it has a large influence, for example...

Since they were glad that they spoke the language, and there was the influence, but I think... that it's for this reason, that it is a mix for them, it is a country where everyone speaks differently with the parents, but they speak French among them."(Lilla).

3.3. A child from 'Braşov country'

Adina (Romanian) tells us the story of her ethnically mixed child raised in Belgium who has the opportunity to stay both in the Romanian and the

Hungarian community in Belgium and is preparing to become a good citizen of the “Braşov country” (the name of the city in Romania where they plan to return some day).

“Yes, we came [here] together. For some years now. (...) We came in May and from September the kindergarten started. It was very hard for him, since he didn’t speak it [French] at all. Over the summer he didn’t want to learn it with me; I kept trying by various little books and so, but... Yes, French. He had an aversion against it, when he heard it, he ran away... and it was very hard for him in the beginning. He was crying each morning when I left him at the kindergarten: saying he can’t understand what the children are saying, that nobody is playing with him, since he doesn’t understand [what they are saying]. Well, he got attached to a girl, who was two and something by then. Well, they didn’t speak to each other, they walked together! And at least it helped him to somehow get over that period, when he didn’t understand, but he was still crying for three-four months, and saying that we should come back to Romania, that it is there he has friends and that he doesn’t like it here, ‘cause... alas! But finally he got over that bump and now he is ok.

Yes, now he is doing very well. He keeps getting praised by his schoolmistress; she tells me that he reads better than a Belgian kid. He has only Belgian children in his class, there are no other foreigners, and his results are good, so he is really ok. (...) Now he is content. He has made some friends, there is this boy who comes to visit us, too...

No, no. We are a little different, since many have taken their children to school within the base, but not us. Us being... my husband being a contractor, he didn’t have the right for his kid to go to school in the base without paying, and one had to pay, I don’t know, five thousand Euros per year. We said there was no point, especially since there are various nations mixed there, all forming their own little groups. No, we preferred that he integrates as well as possible into the Belgian life, since we don’t know how long we will be staying, and at least he should learned French well.

Yes, he also has kids of Romanians [as friends]. The son of Radu, I don’t know whether you know him (...) and we also have a family whom we keep seeing, and they have a girl, eleven years old, the Popescu family, and they also have other friends, alas, with girls and boys also that age and we see them, too. Yes, but we also go to the group of Hungarians in S. They meet about once a month and we also go to those meetings and there he meets children, and he is also doing karate with a Hungarian gentleman and all the children are Hungarian and he says there are friends of his there as well, since you know...

so he has some... he goes twice a week to karate and he meets children from the Hungarians.

Yes, he started having some entourage, more friends.

I didn't have the curiosity! (laughs) I think he says he is a Romanian, since he keeps saying: "in my country, in Romania". He is very attentive when he sees the colours of the Romanian flag (...) And he notices it [the flag] all over the place, he is very attentive.

He was rather small by then, I don't think he was very much aware. He used to confuse Romania and Braşov, he used to say: let us go into the "Braşov country". After four years he understood how it is with Braşov and Romania and the Romanian language. He also used to say "the Braşov language." (laughs)" (Adina)

4. Growing up globally

These global families (Beck 2012), those formed around ethnically or nationally mixed couples whose stories have been shared with us through the voice of the female partner/mother, raise their children in a multi-lingual environment: on the one hand, they try to teach them the language of each parent, on the other, the children become part of a Belgian educational system and learn French. Moreover, since they plan to return and settle in Romania in the future, the Romanian language also needs to be kept alive. Lilla would like to buy a house near that of her parents in Romania, hence she teaches her children Romanian; Enikő kept her house in Romania, whereas Adina has even been paying the child's nanny in Romania for years to take care of their house in their absence, and to be at their disposal during vacations and of course in case they need to return to the country.

The most important thing to remark is that these families live in a state of temporary transnational suspension (Ducu 2018): i.e., they live for an unspecified period in Belgium (without a set duration), but without any intention of becoming integrated there, and with a clear intention to come back (eventually) to Romania. This situation is not only created by the decision of adults on family life, but also by the nature of the professional arrangements they have with their employers in Belgium: collaboration contracts for determined periods - 1 or 2 years - with the possibility, but not the certainty, of renewal. Hence, these families always live with the possibility of an imminent return, but within a leave that keeps being prolonged during the years. Even children are born into these families within this situation: Enikő's daughter and Lilla's three boys.

The children learn their parents' languages - Romanian and Hungarian or Romanian and Slovak -, but while growing up, have also entered the Belgian educational system and have developed an attachment to French. This is especially clear in the fact that the siblings (the girl and the boy in Enikő's case and Lilla's sons), while communicating with their parents in Romanian or Hungarian or Slovak, use French as a "playing language" (Ducu 2018). Parents thus confront the emotional belonging of children to one country (Romania) or another (Belgium), feelings that are not in accordance with the future plans of parents who want to return to Romania.

Thus, these children develop a hybrid identity (Vathi 2015, Rysst 2016), feeling to belong in some way or another to multiple ethnicities and nations. Lilla's children consider their mother a Romanian and their father a Slovak, but themselves Belgians, but may use any of the three languages/identities in certain cases. Enikő's son, although not born in Belgium like his sister and although he likes Romania, still considers Belgium to be "his Belgium". On the other hand, Adina's child who has been raised under the imminence of a return to Romania from a young age, knows that he has another country he needs to relate to, but since the most frequent references to his country within his family are made using the name of the city in Romania where their house is located and where they spend their vacations, he considers this city to be his country.

We must understand that these children grow up in a world where they have friends from various transnational environments - double diasporas: Romanian/Hungarian and Romanian/Slovak and of course the Belgian friends - and from vacations in Romania. They are integrated into the Belgian educational system, hence they need to meet the expectations of that system, but also to be always ready to become integrated into the Romanian one.

5. Concluding remarks

One of the natural concerns of parents who wish to come back to Romania eventually (and not only) is to develop a sense of belonging to the country of origin within their children, and as I have previously underlined, they invest in children's learning the Romanian language in the first place. However, in most situations, even if they speak Romanian at home, even if they are siblings, they prefer to communicate in the host country's language among them. This "playing language" when little, or "study language" when older, links them profoundly to the country they are born and/or raised in. If the parents are very determined to maintain ties with Romania having a return in mind, and if this return actually takes place, the same thing - parents maintaining children's

acquired, foreign, identity - is not valid anymore in what concerns the relations with the country the children have lived in for a while. This rupture is strongly felt by the children, especially if they have been born and raised for a longer while abroad. It is the right of any child to learn and have access to her own culture. For these hybrid children (Vathi, 2015), just as for children from mixed families, this right is in most cases not observed.

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Family Cohesion. “Diffuse Family” Practices and the Transnational Perspective

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Abstract: The article holds forth on identity and analyses the most important transnational practices which keep the cohesion of family in the case of Romanian migration. For a period of time, communication through letters, telephones or known people were the only available ways for those left to work abroad. Visits in the country were rare or absent and relatives’ visits were also rare. The situation has gradually changed, with new practices looming or being structured. In trying to detect the importance of these practices, I analyse their evolution and actual situation, highlighting the importance that these practices have had and continue to have in keeping the cohesion of transnational families. The study is based on materials derived from a qualitative research in four communities – two in Romania and two abroad.

Keywords: transnational families, practices, cohesion, social space

1. Introduction

I find that researching the family is an essential dimension of socio-human studies. During the first year of the project *Confronting difference through the practices of transnational families* I often discussed with Viorela Ducu, project initiator and coordinator, and did not understand how someone could study migration without eventually blundering into the topic of the family?! The vice versa being equally valid. In the case of Romania, I think there is a profound relation between family and migration. I have said it, but others have also said it before me.

Not farther than the year 2015, Vintilă Mihăilescu (2015), one of the renowned Romanian anthropologists, wrote in an article on the existing relation between family and migration: “The Romanian society has started to install itself too in mobility, but still keeps the cult of the family.”

This statement is supported by statistics showing that, similarly to other Eastern European countries, as discussed by Violetta Parutis (2011) among others, Romanians maintained a particular behavioural pattern even after the fall of communism. Current surveys show that family comes first when Romanians are asked about their values. This is the same for Poland, with surveys from 2005 showing that family values ranked first in the people’s preferences, as well as a markedly family-centred behaviour. To account for this, the restriction of freedom by the communist regimes and their attempts to take over control of people’s private lives were invoked (Parutis 2011: 271).

Taking these points of reference, the study looks to first discuss family representation in the perspective of the Romanian society and its defining dimensions, and then point to the way in which family practices have been reformulated under the impact of migration to ensure its cohesion forward.

2. The questions

In trying to answer the question of how perspectives on family have changed in the context of migration, the study holds forth on identity and analyses the most important transitional practices which keep the cohesion of family in the case of Romanian migration. My attempt to detect the importance of these practices relies on an analysis of their evolution and actual situation, which makes it possible to reveal their past and present contribution to keeping the cohesion of transnational families.

3. Data, sites and methods

The research is based on the qualitative analysis of data obtained through live audio and video interviews with transnational family members and key people from four communities – two in Romania and two abroad. This represents only a part of a more extensive research titled *Confronting difference through the practices of transnational families*. Our respondents were Romanian migrants, generally well integrated in the receiving society and without having marginal social statuses. The structure of the sample is the result of the method used to select our interviewees, i.e. the snowball method. The respondent sample thus turned out to be highly qualified migrants, with ages between 28 and 45, an university education, and working in the professions for which they were

trained¹. Their answers reflect how views of *family practices* have changed and have been transformed.

The analysis of interviews was complemented by a review of the literature (mostly Romanian ethnographic work) focusing on the representation of family in the collective imaginary of Romanian society. I use a diachronic approach to the concept of *family* in order to capture the change in attitudes as a result of the migration process. Migration – in conjunction with status, values, behaviours – has influenced, divided and transformed the way in which family practices are performed. At the same time, this change has also called forth a restructuring of the way in which families are defined in current quotidian practice.

4. The argument

One must bear in mind that transnational families are based on diverse constituents, a different status, and that they have been restructured dependent on these particularities under the pressure of experiencing migration. At the same time, we must not forget an equally important detail: although these transnational families do not currently belong to a particular territory (we can consider them as being *deterritorialized*²), most often, they have formed in a circumscribed cultural space, in our case, the Romanian one. This has impressed them with a particular essence and structure, and they do not start from scratch, as David H. J. Morgan remarks in connection with defining family practices (2011: 7): “This is in part a recognition that individuals do not start from scratch as they are going about family living. They come into (through marriage or parenthood, say) a set of practices that are already partially shaped by legal prescriptions, economic constraints and cultural definitions. This is, in part, what is meant by structuration as a set of processes rather than fixed external structures.”

¹ For a discussion of highly qualified migrants, see for the Polish case Hryniewicz, J., Bohdan, J., Mync, A. (Eds). (1997). and for the Romanian case Alexe, Ulrich, Stănciugelu, Mihăila, and Bojincă, (2011). Although the latter discusses the migration of “white coats” (Romanian medical doctors), it can be extended to other categories of professionals (IT specialists, engineers, etc.).

² For the prime conceptualization of this term, see G. Deleuze and F. Guattari (2000) [1972].

5. The family today in Romania

In Romania, the family is currently defined in close connection with marriage. Beside a certain modernization of the Romanian society, which can also be attributed to a great extent to the migration phenomenon, it must be said that the level of common mentality continues to hold on to family structures and definitions derived from a cultural mentality background that is deeply rooted in the Romanian traditional society.

Family has been discussed in Romanian social studies, not long ago, in terms of the classic triad: mother – father – children / child, lately. Xenia Costa-Foru (1945), Henri H. Stahl (1959) and Nicolae Constantinescu (1987) are the most notorious names in what regards the problem of family in Romanian sociological / ethnographic studies. More recently, they have been joined by authors whose studies focus on mono-parental families (Iluț et al. 2009). There is no mentioning of homosexual families, childless families, or families that are not based on marriage, for example. But why? Are they not families? Maybe that is simply because such families don't even seem to exist in Romania and, according to opinions expressed by a large part of the Romanian population, they should not exist at all. On this line, we can give three illustrative examples off the recent Romanian social reality.

What I have tried to catalogue below refers to the issue of marriage and the principal aspects that circumscribe, formulate and reformulate the issue of family – in direct correlation with marriage. These aspects outline the different present dimensions of the family: namely, its quotidian, juridical, and canonical (religious) dimension.

5.1. Quotidian social reality

5.1.1. "You are not complete as a human being if you don't raise a child"

The "Klaus Johannis – Gabriela Firea" dispute (Klaus Johannis was a presidential candidate at that time) took place during the last electoral campaign running in November 2014. Two "major defects" have been attributed to the candidate Klaus Johannis throughout the campaign, defects that would not have made him "adequate" for the presidential function: his ethnic affiliation and the lack of children from his marriage with Carmen. For the second, he was attacked by the spokesperson of the presidential campaign from a counter-candidate party, Gabriela Firea, who claimed that "You are not complete as a human being if you don't raise a child."

5.1.2. “*The union of partners*” vs. “*the union of man and woman*”

A campaign carried by the Coalition for Family was initiated at the beginning of 2016, aiming to gather signatures for a legislative proposal to revise the article in the Romanian Constitution which defines marriage [art. 48 alin. (1)]. The revision would stipulate that marriage does not rest in the “freely consented union of partners” but the union “of man and woman.” For that matter, the campaign has been strongly supported by the main churches in Romania (the Orthodox Church, the Catholic Church and the Protestant Church), gathering signatures that would effect this change. 3,000,000 signatures were gathered during the campaign in support of the proposal to produce this modification.

5.1.3. *Legislative proposal to consolidate the state by supporting demographic growth*

In September 2016, a Romanian representative registered a legislative proposal providing more facilities for:

- a) young people who marry for the first time and are 35 years or less – they would receive approximately 3,300 euro (15.000 lei³) from the state and be exempted from income tax.
- b) families with a third child would receive the same amount of money when their third child is born (or adopted). In order to receive the money, these families would need to cumulate several conditions – “*all children must be under 18, attend obligatory state education classes, all family members need to have their domicile or residence in Romania, the parents must live together with the children and at least one parent must make proof of an income for which state contributions are being paid.*” *In what regards mono-parental families, they would benefit from the provisions of the law only in case one of the parents dies.*”⁴

These three fragments taken from the Romanian social reality of the last two years reflect the way in which society generally defines both marriage and the family in the current context.

They eliminate actual social realities from the notion of *family*: couples living outside marriage, married couples without children, mono-parental families resulted from divorce, etc. Their different logics reflect an opaque level of social openness, close to its equivalent before 1989, when family was defined in terms of *normal* (married couples, with as many children as possible) and *deviant / inexistent / abnormal* (all other types of family, mono-parental

³ Romanian national currency.

⁴ BP469/2016. Legislative proposal for the consolidation of state by supporting demographic growth, initiator Pușcaș Iacob. Accessed in October [http://www.cdep.ro/pls/proiecte/upl_pck.proiect?cam=1&idp=20079].

families, families without children, etc.⁵).

5.2. The family as institution – the juridical and legal perspective

The adoption of the Civil Code in the United Romanian Principalities in 1864 was strongly influenced by the French Constitution from 1791⁶. At that time, the majority of jurists defended the civil contract character of marriage. This is no longer valid now, as the current professional juridical literature refuses, in majority, the contractual nature of marriage and instead favours its institutional character. In order to endorse the institutional character of marriage to the detriment of the contractual one, the following arguments are advanced in professional juridical literature: in the case of contracts, the norms and obligations of the parties are practically taken on willingly by them, whereas in the case of the juridical marriage act they are established imperatively by law; if, in the case of contracts, one can aim at different intentions, in the case of marriage the spouses have a common goal; marriage is not affected by terms and conditions, like the contract is; while marriage can only be resolved in a court of law, a contract can be discontinued or modified simply through the agreement of the parties involved; at the same time, in the case of marriage, nullities present certain particularities (Bacaci et al. 2002: 16-17).

In Romania, family law is a free-standing legal branch. By adopting Law no. 4 from January 4, 1954, family law has been separated from civil law. Also in support of this idea, it is worth mentioning that accent is placed in family law on the relations of moral-affective nature within a family, the relations of juridical nature being secondary. Arguably, there are other branches of the law touching on the issue of marriage – constitutional, administrative, civil or employment law are just a few examples. Instead, the most important aspects regulating the main dimensions of marriage are comprised by family law. The legislator does not currently give a general definition of the notion of family. Family is defined in an extremely malleable way, dependent on the different aspects taken into consideration. It is most often used restrictedly, when family means husband and wife, as well as their minor children, and then more loosely, when other categories of persons are added to these categories (Bacaci et al. 2002). According to juridical doctrine, there are three functions of the family in Romania: to perpetuate the species, the educative and the economical function (Popescu 1965). In conformity with the juridical and common norms,

⁵ The existence of such types of family was often discouraged by the socialist state before 1989 through different legislative measures. One example to that effect would be paying a surplus tax if you were 25 years old and was not married.

⁶ This Civil Code has been in force until October 1, 2011.

family exists only in the parameters of the marriage it is based on. Some authors argue that **familial solidarity** could also be added to these functions (Albu 1998).

5.3. Marriage and family – canonical aspects

A simple survey of the expressions employed in daily language to mention that someone got married reflects the profound relation between the terms *family* and *marriage*: “*s/he formed her/his own family,*” “*s/he has gone to her/his house,*” “*s/he has made sense of her/his life,*” etc. All these expressions and those associated with the moment speak about the clear relation, at the level of ordinary mentality, and even the superposition of the process of marriage and the founding of a family.

The founding of a family is currently circumscribed in Romania in terms regulated by two major actors: the State and the Church. Both actors impose on those who marry their own terms, which are not subjected to negotiation but regulated by law (whether civil or canonical). This way, marriage is assimilated to an institution, as I already mentioned in the previous subchapter (see 5.2.).

The Constitution of Romania currently states the following: “Religious marriage can only be celebrated after civil marriage.” (art. 48 in-line 2) (Constantinescu 2010: 45-51) Regardless of the religious cult under which the marriage is performed, it is basically compulsory in Romania today that future spouses own a civil marriage certificate. Only civil marriage brings on the juridical effects resulting from the completion of marriage. Even so, marriages that are not blessed by the Church through the Holy Mystery of Wedding, are still not considered valid from the perspective of canonical law (Constantinescu 2010: 80-81).

By marriage, the current canonical Code understands “*the alliance of man and woman, a life communion ordered by its nature towards the welfare of the spouses and the birth and education of children.*”⁷ While the main provisions regarding civil marriage are given by family law, the regulations referring to the religious union of spouses are provided, in the case of the Orthodox Church⁸, in the Canonical Collection established at the Ecumenical Synod from Constantinople in 920, as well as the legislation of each local church midst ecumenical Orthodoxy.

⁷ The canonical Code from 1983, Cf. I. M. Constantinescu 2010.

⁸ Romania is a preponderantly Orthodox country. According to the 2011 census, 86.45% of the population declares to belong to orthodox religion. For details about the structure of population in Romania and its religious affiliation, see: http://www.insse.ro/cms/files/publicatii/pliante%20statistice/08-Recensamintele%20despre%20religie_n.pdf [Accessed on September 1, 2016].

5.4. The family across the territory of Romania – oscillating between practice, juridical and canonical definition

In the Romanian language, the term *bloodline* designates a family group that is connected both in consanguinity and affinity (this kinship is realized especially by ritualistic means, through the institution of *năşie* [Romanian]/ritual *sponsorship* respectively). (Kligman 1998: 30-33) Most often, in daily speech and practice, individuals use this term in order to identify who is part of the family. The term is all the more valuable as belonging to a *neam* [Romanian]/bloodline or another (whether good or bad) cannot be interrupted, not even by death. You belong to a certain ancestry, both in the world here, and the world beyond, as G. Kligman remarked (1998). It is worth mentioning that the term *bloodline*, by itself, has a value given by quotidian and canonical practice and not by its definition in the juridical sphere.

Belonging to a bloodline presumes associating the individual to a certain type of capital (especially in the rural areas), whether it is a positive or a negative one. If we talk about the rural environment, on the other hand, what matters is the symbolic value that marriage has in a good bloodline, a value that extends onto the entire bloodline. According to this scheme, new kindred relations are bred between the two spouses, their descent families and godparents, relations that are most often labelled as a *conventional type of kinship* (Scurtu 1966: 239); instead, in the traditional society, kinship bred out of this type of relation was considered to be a *spiritual type of kinship* (Stahl 1936). This designation arises from the role godparents used to have in traditional societies in the lives of the wedded – to guide the young couple, to help it manage the eventual crises in adapting to a life in two, and to lead them on the path of righteousness and Christian belief. As a matter of fact, the institution of ritual sponsorship seems to have an old origin, contributing to the cohesion of the familial institution. Frequently, kinship by ritual sponsorship had a greater power than consanguinity. This type of kinship had a conservative character, as the son (usually, but also the girl, as appropriate) was indebted to take his/her father's place. Such situations bred new types of obligations and liabilities, all based on the principle of reciprocity – on the obligation *to give, to receive and to return the gift*, as M. Mauss noted in 1923, when theorizing *the principle of the gift*.

Currently, in the contemporary Romanian society, the most illustrative contexts where this principle is performed and reconfirmed are those occasioned by the organization of weddings and baptisms. A series of today's practices among transnational families arise following the logic of such obligations, structured according to spiritual kinship and underlined by the principle of reciprocity.

6. Family and migration

Vintilă Mihăilescu (2015) has written about the practice of migration in the case of the Romanian society, showing how it is ultimately deeply rooted, before 1989, in the communist period. The current practices of transnational families were formed based on these roots, of the “diffuse” family (as V. Mihăilescu calls it). Under the pressure of internal migration from villages to the city, the traditional Romanian family suffered a major structural transformation. According to the Romanian anthropologist, *the diffuse family – household*, as he calls it, seems to be “the grandmother” of the transnational family. In this context, the author talks about the different logic of family compared to that of ancestry (see 5.4.), which constituted the foundation of Romanian society to a certain moment. He discusses about what could be called a “pragmatic” kindred where “it is not so much the relatives who help each other, but those who help each other become relatives.” At that time, around the mid-80’s, in the context of generalized penury, families have experienced a massive restructuring under the impact of migration from the village to the cities; the transnational family after 1989 was formed based on this “new family,” along with the massive waves that have seen Romanians migrating towards the Occident.

Therefore, in the context of Romanian families already having a history “of breaking up,” what took shape along with the massive migration of Romanians abroad has only meant an extension of the space in which families start to place and administer their ordinary existence. In this context, family practices that have kept family cohesion over the course of time have been restructured today, yet not reinvented.

6.1. The practices of transnational families

In his 2011 volume, D. Morgan outlined the six fundamental characteristics of family practices: the term practices connects *the perspectives of the observer and the actor* (because in everyday life, people do not frequently talk about what family means, they simply live it and experience it); *a sense of the active* (that is, family members don’t only have static roles, they are not only mothers, fathers, brothers, etc. – they are *doing family*); *a sense of the everyday* (included here are all those important actions in family life, including those that people speak less of); *a sense of the regular* (we’re talking here about the regularity with which a certain action takes place, whether it is daily, weekly, yearly, etc.); *a sense of fluidity* (the author refers to the fact that the ways in which someone comes to be part of a family or excluded from it are quite flexible; at the same time, these practices that researchers define as being family practices, can just as easily be

defined, for example, as being gender practices); and finally, the fact that there is a *linking of history and biography* (which could also be formulated as a link between private and public) (Morgan 2011: 5-8). According to the author (Morgan 2011: 10), all these characteristics overlap and structure family practices to form the essence of the concept of *family*.

Concerning transnational family practices, what I consider to be of prime importance in their definition is what Morgan calls *a sense of fluidity* (Morgan 2011: 7). This characteristic of family practices is able to capture, most closely in my opinion, their perpetual re-structuration. *Fluidity* can also help one closely capture the “becoming” of the Romanian family in the context of migration.

Robila (2010: 3-5) has given evidence of the changes that take place in the structure of family relations under the impact of migration, labelling them as an opportunity and a challenge at the same time. Migration has a major impact on the relation between spouses, on parental behaviour, and on destiny in general. Remote relations are often structured in the context of migration and, along with these, the accent falls increasingly on communication. When family members no longer share the same space or common experiences, their perspectives on the different aspects of family life also start to differ, resulting in a restructuring of their practices.

Yet Robila is not the only one to signal this realignment of transnational family practices. A series of studies illustrate, through researches on various groups of migrants, the ways in which family practices preserve their cohesion, regardless of their geographic spread. In her study on Moroccan women who migrate to Italy, Salih (2002) observes the way in which these women keep family relations based largely on visits, organizations of and participation to weddings and other events that take place during the holidays they spend in Morocco. Goulbourne et al. (2011) explore the issue of *belonging* with Italian migrants. The authors observe the recurrence of references to the moment of their return to their country of origin, as part of relations created inside families, and the formation of a literal myth of returning. This myth of a return, present in almost all discussions with members of the extended families back in their country of origin, contributes to the preservation of these families' identity and cohesion. Fuller-Iglesias (2015) focuses on the Mexican families affected by the experience of migration, bringing a complementary perspective to those studies. Her article concentrates on those members of the transnational families who remained in Mexico. The author underlines the drastic differences in the reactions towards the experience of separation in various transnational families. Concerning cohesion, her data show that while

for some families the context of migration has meant an opportunity for togetherness, for other families the same experience has resulted in family fragmentation (Fuller-Iglesias 2015: 1719).

The process of migration affects the structure of relations within families, the way in which they are defined, composed or practiced. Confronted with this new reality of their existence, family identities do not disappear, they simply recompose themselves. This is essentially a consequence of the fact that, as D. F. Bryceson and U. Vuorela singled out (2002: 19), “[*t*]ransnational families are not simply blood ties, nor are they fixed entities. They are highly relative.”

For reasons that have to do with the length of this article, I will exemplify the restructuring of these practices by presenting five cases that illustrate the particular situation of transnational families. Each case captures a particularity of the way in which family practices are being restructured under the impact of migration. The last case I present will seek to mirror the special situation of organizing weddings in a village from the Satu Mare county – a township largely composed of transnational families.

6.2. Case studies

6.2.1. Julianne (28 years old)

Was born and raised in Romania, in a small provincial village. She attended the military high school in Sibiu, then the Military Academy in Bucharest, where she settled. Julianne has a twin sister to whom she’s very close. In fact, they’ve bought their apartments in Bucharest next to one another so they could be closer to each other. She also has another sister – both sisters, their parents and her future husband live in Romania. She is not at her first migration experience, as she has previously been gone for one year in the Czech Republic. When I met her in Belgium, she had already been gone for six months from Romania. For Julianne, this type of existence represents a challenge, but also an extremely calculated program. She wishes to settle in one place after her wedding in November of this year. She told us how organized her time and visits to Romania are. She claims that, ultimately, even if she were to live in Romania, she would still be away from a part of her family living in Transylvania (at a considerable distance away from Bucharest). Basically, communication (facilitated today by various means such as Skype, WhatsApp, Viber, etc.) is the key in maintaining family cohesion. But Julianne is also the one who talks during our interview about the importance that commonly shared experiences have regarding her life in the couple.

The organization of time

“They [her parents and sisters] have come [to Belgium] and stood for one week, and now in the summer they’ll come again. (...) I plan everything in detail, so that we can meet and find a way to see each other, and, likewise, they come to Bucharest when they know I’ll be there too.”

Communication

“Yes, throughout the week we keep in touch on Skype, of course, on Whats.App, Viber, the social media that are available right now, although it’s tiring and it exhausts you as well to know that you can only keep in touch on Skype with those dear to you. Sometimes it makes you want to turn it off and never open it! [she laughs] and it is more gripping, not in a dramatic sense, but affectively, because of the connection with your parents and your family, which is not in Bucharest and you don’t have the chance to see them so often. The distance between Bucharest and Transylvania...is a bit! [she laughs].

Two lives – shared experiences

“I was just talking today with some of my colleagues, I was explaining to them that sometimes I have two lives: from Monday to Friday and from Friday to Sunday evening or Monday morning, because I change my environment completely, I change people, I change the life stories I share with different people and I also change my experiences, because the environments are so different! It is the setting you’ve left behind, with which you’ve been used for so long and the new setting, the one you’ve made for yourself. And that’s why I wanted so much for him to come here, because I don’t want to build myself a setting that’s extra to the life we have there. Without realizing, you start to build, to bring closer around you people that only you know, you never come to know them as a couple.

6.2.2. Raul (34 years old) and Carla (32 years old)

are the couple we’ve been closer to during our fieldwork in Belgium; in fact, they’ve also offered us lodging, giving us an opportunity to make participative observations. Raul moved to Belgium ten years ago. After a few years, his girlfriend at the time, currently his wife, Carla, followed him. They both work in the IT sector, which made it easier for them to find a job and adapt to the new country. They actually came to Belgium because of their outstanding skills, both of them working for an international company. Although they see very clearly the pros and cons of being a migrant, Raul and his wife plan to stay in Belgium. They make frequent trips to Romania – every two months –, and this

year they bought a flat in Braşov, the city they both left. During these trips, there is a program that is structured around the same variables: visits to the extended family, meeting their friends who remained home, participating to weddings, baptisms, or funerals. After the year 2014 when their girl was born, Raul and Carla changed the frequency of their returns back home, but they extended the period they spend in Romania. As a matter of fact, their civil marriage, their wedding and the baptism of their daughter all took place in Romania and have been planned ahead. Their visits and meetings with their extended family and friends remain the subject of all their trips back home, but also of their trips back to Belgium. During these meetings and participations to events, they always exchange gifts and attentions – which go from simple books, clothes, or perfumes, to comfiture, pickles, plum brandy and homemade bacon.

Meetings, visits

“But we somehow make it to... that is, we keep in touch with them [people back home] by mail, by phone a bit more rarely, unfortunately, and every time we go to Romania we meet our closest friends. And they’re ready, our friends... they’re always glad to see us.” [Carla]

“I keep thinking at this, that it’s sometimes hard to deprive your grandparents of all these visits, which are ok, but are not enough. They clearly wish for more and I would go for this idea myself, because the job is very important, but at the same time so is our family basically... Our family is getting old too, so to say, and you need to take this aspect into consideration as well.” [Raul]

“Carla: Yes, but at the same time, the trips when we make them are longer. Longer and maybe, overall, we spend just as many days in Romania as we used to before.

V: But from Romania to here, how often do they come?

Carla: Ah, since our child arrived, much more often. Before they only came once, his family, and once my family, but after that... we’ve alternated a bit our families and I think every four or five months we have a visit from our parents.” [Carla]

6.2.3. Mary (56 years old)

Was born and raised in a small village from Suceava county, Dorna Arini. Mary has three daughters; all three of them have travelled abroad and settled there, and none of them plans to return home. Two of her daughters are in Europe

(Italy and Germany) and one is in America. Although she talks about each of her three daughters every time and she is happy that they've successfully settled "among strangers," during our conversations she recurrently returns to saying they are far away. Mary tried during our discussions to control her emotions but she barely succeeded. The life of her family is woven in-between the visits of her three daughters, although they seem to visit her less and less. Their visits have instead been replaced by the parents visiting the countries where their daughters have settled. The life of the family is built around these visits, long-expected throughout the entire year.

The migrants' visits to the country

"Now she [her older daughter] has already come home twice, she has made herself documents so she can come and leave whenever she pleases. And... it is hard for her to come and stay with us because they're habituated to another lifestyle and... I don't know, 'cause they all went to school and could find themselves work here too, but they're already habituated to another way of living. It is hard for them to return. So... I say 'What will we do when we'll be old?' 'Well, you can then come stay with us!' I tell them, how can I go and leave my home... 'We'll buy one here for you as well, because we cannot come'".

Parents visiting their daughters

"We've been to Italy... in America we didn't go yet, we'll go next year. We've been to our little girl who used to work for the European Commission, we've been to Italy twice or three times to visit her... this spring we also travelled to Germany to see our girl who works there in Frankfurt. We've been there, we visited her, but still... we live yearning for our children because that's how it is, yet... they're ours, but they're not our property, so for some time they've been, as they say, each on their own."

Communication in-between visits

"We see them, certainly, [on Skype] and we are pleased to know they're well and... yes. We got used to it now, because there have been so many years and we need to get used to it, but, as they say, with time passing by, we grow old and become more sensitive. When you are younger, you are not so sensitive..."

6.2.4. Victor (67 years old)

Is another parent whose family life is woven in-between these visits from Romania to England, the country where his boy has left. Yet besides these mutual visits, Victor has a well set plan to bring his son back home. He is

building a business for him, by constructing a pension that he hopes it might convince his boy to return to Romania. Victor presents us this situation as a beneficial one for the well-being of their family as well, since in his town of origin, all products made in their own household are “eco.”

Visits

“Of course my goal has been to see my children [son and daughter-in-law]. Then, of course the first objectives were the museums. The museums, London... everything that stands for civilization in London. And I stayed for six days, I took a train ticket and... I came back from there accomplished because I used to read from my studies in the History of Art, I used to see photographs, books, art history catalogues, but there I was able to touch them... it’s one thing to see them in an art history catalogue and another to go on the scene. Yes, and... I am glad.

Returning home

“He thought about it from the beginning, yes [to return home]. Because he’s a parent loving child and does not wish to stay too much away from them. And, of course, we’re looking to prepare the ground for a business, so he can make a living... not as much as there, but it’s home. It matters a lot, even if he’s earning less, that he stays home. And we also stay in a beautiful area, and we hope that tourism will blossom, so that he also has clients at the pension we’re in the course of building. And that wood processing will go ahead. He can make wood panels... they’re sought after at exports... You need equipment. Gear for quality and for productivity. The handicraft, I already do it, because I’m old and the children are beginners, but you cannot live with handicraft. (...) And when you also have a household and some home animals... people don’t ditch their household, because it’s tradition... it’s one thing to consume an egg from that coop and some meat from the piglet you’ve grown yourself, not with hormones, not with... I don’t know... all sorts of substances for rapid growth. When you buy a chicken, you see it’s livid... fast grown, but it’s not healthy...”

6.2.5. *Weddings*

A small village in the Satu Mare county, which numbers a total of approximately 400 inhabitants, the majority of whom are over 60 years old, has a heated wedding tent for 1.000 people. The most obvious question would be: what for? Because every year, in the period between August 15 and September 15, this is where they make weddings each day of the week. Those who have

travelled abroad to work return and organize these weddings in the only period they have free from work abroad and when weddings are permitted, that is, there is no fasting according to the Orthodox Christian calendar. Participation to the wedding of a family member constitutes for the Romanian society an obligation one is not allowed to miss. When participating to a wedding, a new obligation arises for the people whose wedding you attended: that they will be present at your wedding, or your children's and grandchildren's wedding. This obligation does not touch blood relations alone, but also congeniality relations, neighbours, school colleagues or friends. The obligation itself is "sealed" by the envelope with money (most often not a small amount) called *wedding gift*. Ultimately, what takes place at a local level, in certain communities, is a phenomenon of change in the marital behaviour, as weddings are celebrated daily throughout the entire period between August 15 and September 15⁹. What happens around these weddings amidst Romanian communities is also a phenomenon of showing off the well-being and (most often financial) capital obtained from migration. Yet one of the primordial functions of these weddings has been and continues to be to preserve, affirm and reaffirm family and bloodline cohesion.

7. Conclusions or, from the practices of the "diffuse family" to those of transnational families

There are important moments in the life of a family that no migrant could ever imagine to miss. In the Romanian society, baptisms and weddings have always been and continue to be eventful moments that hold the power to bring families together.

In the traditional society, preserving kinship cohesion meant a series of obligations and liabilities that were often transmitted from one generation to another without being questioned. They basically constituted and maintained the channel of communication between family members. The members of transnational families have absorbed these traditional structures, weaving over new formulas to adapt family practices to the specificity of transnational living.

7.1. The visit

Itself becomes a practice that puts pressure on the members of transnational families, as it is often considered to be an obligation based on which certain relations are maintained. This practice is not new for the family tableau. Ritual

⁹ For more details on this phenomenon of change in the marital behaviour in the case of Romanian migrants, and details on the wedding period taking place daily (in rural communities from Romania), see Anghel 2008.

visits are signalled by Romanian ethnologists, who considered them as underlining the maintenance of kinship cohesion.

7.2. The exchange of gifts

That took place in ritualistic contexts (birth/baptism, wedding and funeral), to the distribution network of aliments (or other favours) during communism, have ensured family cohesion throughout time, in spite of the distance between its members. This practice is also maintained by the members of transnational families.

7.3. Fluidity of family relations

Not lastly, migration has imposed a certain **fluidity of family relations** (Morgan 2011). These relations are preserved because of the connections between family members, connections which form through communication, meetings and visits. The members of a family and their roles, who is included or excluded from this circle, were formerly defined by unwritten law and genealogy. Today, the places left empty at family meetings are often taken by a neighbour, a person paid to offer support, or another person who was included in the circle after marrying at an older age (a practice that has until recently been rarely seen in families throughout Romania).

Herrera Lima observed (2001: 91) that transnational families are, symbolically, an agent by the instrumentality of which different conventions, practices and forms of consumption circulate and fuse. And that, at the same time, it is by their instrumentality that cultures are created, recreated and transformed. The present study aimed to consolidate Lima's assertion. In the case of Romania, the practices of transnational families (re)outline the structure, dimensions and formula of the family institution through constant reformulation, ensuring family survival regardless of the context.

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Emigration and Poverty in Romanian Regions by an Analysis of Efficiency

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Abstract. In general, between the variables ‘people at risk of poverty’ and ‘emigration’ there is a direct correlation: the higher the number of deprived people or people at risk of severe poverty, the more significant the variable ‘emigrated people’ becomes. The purpose of this research was to assess by a quantitative approach whether financial subsidies allocated by the Common Agricultural Policy have acted on the socio-economic fabric mitigating the emigration and people at risk of poverty in all Romanian regions from 2007 to 2015. The methodology has used a Data Envelopment Analysis approach, completely reversed compared to the traditional models of efficiency reported in literature.

Keywords: Data Envelopment Analysis, rural areas, Farm Accountancy Data Network, unemployed people, permanent emigration

1. Introduction

In Romania and in many European countries, which entered the European Union after the enlargement in 2004 and in 2007 as a consequence of the collapse of the iron curtain in the late 1980s, there has been a significant emigration in particular from rural areas, which have been characterized by a high level of poverty and socio-economic deprivation. The collapse of communist regimes has implied a transition from a centralised economy to an open one with different impacts on the backward rural areas (Galluzzo 2017b; 2016a; 2016b; 2016c). In these areas, the emigration to urban centres and to other countries has been a direct consequence, and fundamental in improving the economic and social living conditions in Romanian countryside and by contrast enhancing and stimulating an inverse emigration from border countries to Romania as well (Ronge 1991).

As investigated by some scholars, Romania has been involved in three levels of emigration such as temporary emigration, permanent emigration and internal migration (Sandu 2005a; 2005b; 2008). According to this latter author, the temporary emigration towards foreign countries is rising compared to internal migration and it has been strongly influenced by social and human capital endowments able to drive some flows of emigrating people.

The Common Agricultural Policy (CAP), through many financial subsidies and during the pre-accession phase by means of the SAPARD initiative, has supported the rural development in the Romanian countryside in order to mitigate the permanent emigration from rural areas. This focused in particular on less favoured rural territories which, compared to urban territories and other European rural areas, have had a modest level of technical and economic efficiency in farms, a low level of assets, investments and infrastructures and a worrying aging phenomenon of the rural population (Galluzzo 2016a; 2016b; 2016c). Furthermore, lots of people in Romanian farms usually work in their own family-owned small farms as familial workers. As a consequence, this fosters emigration aimed at improving their own income and general living conditions (Bleahu 2004), which is often typical of small rural villages where there are scattered farms with modest fragmented plots of land (Galluzzo 2016a; 2016c).

The role of agriculture is pivotal in Romanian rural areas in partially reducing the emigration towards urban areas and poverty, fulfilling nowadays a specific role of socio-economic buffer tool. It did so during the economic crisis in the late 1990s, over the phase of transition from a centralised economy to an open one, in economic recession in 2008-2010 and also before the enlargement of the EU in 2007 (Salasan and Fritzsich 2009). According to these authors, most small scale Romanian farms can be classified as subsistence and semi-subsistence agricultural enterprises, driving the emigration phenomenon from the countryside because of their modest level of income. The risk of severe poverty and social exclusion is an issue for younger generations even if the primary sector is pivotal in fighting the poverty in rural areas.

Previous scholars have assessed the level of education and the unemployment rate as two main factors influencing the intention of emigration in Romanian people (Sandu et al. 2004). Some variables have been a bottom line in temporary emigration in few regions of Romania (Sandu 2007). Other authors have argued that the level of Gross Domestic Product per capita and financial subsidies allocated by different measures of the CAP have been able to partially solve the emigration from Romanian countryside in a perspective of

an integrated pattern of a less vulnerable and more cohesive and integrated local rural development (Dachin 2008; Zodian 2016).

The analysis of efficiency is important to understand which variables in terms of input and output have to be implemented or reduced with the purpose of obtaining an efficient productive process. There are few studies in the literature which perform the analysis of efficiency in a quantitative approach and which compare some performances aimed at reducing the poverty (Habibov and Fan 2010).

The aim of this research was to assess by a quantitative approach the impact of financial subsidies allocated by the European Union throughout the Common Agricultural Policy in reducing the emigration and poverty in some Romanian counties since 2007 to 2015 in terms of efficiency using different variables correlated to the socio-economic development in rural territories (Table 1). The optimal threshold of efficiency is equal to 1 or 100% on the basis of the scale of investigation; in general, the higher the level of efficiency, the more efficient is the unit of observation, such as farms, enterprises and so on. Hence, a value close to 1 or 100% implies there is an optimal combination of input.

Table 1. Variables investigated in Romanian regions over the time 2007-2015

Variable	Unit	Description
Output		
Population at risk of poverty	(n°)	People at risk of severe poverty and social exclusion
Emigrated people	(n°)	People permanent emigrated from Romania
Input		
Unemployed people	(n°)	People part of the workforce but not employed in any sectors
Common Agricultural Policy aids in the first pillar	(€)	Financial subsidies allocated by the first pillar of the Common Agricultural Policy (CAP)
Rural Development Programme second pillar	(€)	Financial subsidies allocated by the second pillar of the CAP in the Rural Development Programme

Source: author's elaboration on data (http://ec.europa.eu/agriculture/rca/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>)

In this research the output is the level of emigration or the level of people at risk of living in severe poverty. The approach in this study has been completely reversed compared to the general theoretical framework of efficiency. In fact, at the optimal level of efficiency, there is a low level of emigration or people living at risk of severe poverty., this variable being close to zero instead of 1 or 100%. This implies in an output oriented model the lowest level of permanent emigration or poverty due to a different level of input such as financial subsidies allocated by the CAP or unemployed people.

2. Methodology

In literature two methods aimed at assessing efficiency are proposed: a parametric or deterministic approach, which needs a specific function of production and other parametric variables correlated to the factors of production, and a non-parametric model or DEA (Data Envelopment Analysis) whose purpose is to define a hypothetical function of production (Coelli et al. 2005; Galluzzo 2013). The distance from the frontier of this function is a good approximation of the index of inefficiency (Bielik and Rajcaniova 2004). By contrast, along this function there are all possible combinations of inputs or output able to minimize costs (inputs) or maximize the produced output (Bielik and Rajcaniova 2004).

In the non-parametric model combinations of input and output and their fluctuations from the frontier of the function of production are considered inefficient and they are not connected to the errors. Thus, the optimal level of efficiency is described as a set of opportunities for farmers in maximizing the output minimizing in the same time inputs or vice versa (Bojnec and Latruffe 2008; Galluzzo 2017a; 2013). In this research the efficiency has been estimated by a non-parametric model applied to specific assumptions of a variable return to scale or VRS in an output oriented model (Farrell 1957; Battese 1992; Coelli 1996) using the software DEAP 2.1 and comparing research findings in VRS model to a constant return to scale efficiency (CRS).

The purpose of the DEA linear programming model is to minimize in an output model all the input used in each unit of investigation that is a ratio of efficiency written as (Galluzzo 2013; Coelli et al. 2005):

$$\max h = \frac{\sum_r u_r y_{rj_0}}{\sum_i v_i x_{ij_0}} \quad (1)$$

s.t.

$$\frac{\sum_r u_r y_{rj}}{\sum_i v_i x_{ij}} \leq 1 \quad (2)$$

$j = 0, 1, \dots, n$ (for all j)

$u_r, v_i \geq 0$

The non-parametric linear model throughout the Data Envelopment Analysis has been described for the first time in 1978 (Charnes et al. 1978) and it is useful to estimate the relative efficiency in each Decision-Making Units based on different levels of input and output (Hadad et al. 2007) with the purpose to minimize the level of input in the process of production (Doyle and Green 1994).

The aim of a non-parametric output oriented model, used in this research is to maximize in a multiple-input model the output that is a ratio of efficiency with many possible solutions hence, the value of efficiency is in a range between 0 and 1 (Bhagavath 2009; Galluzzo 2013; 2016d). If h or rather the best value of efficiency, maximization of output, is equal to 1 or 100% each farm or Decision-Making Unit (DMU) is more efficient compared to other DMU_{h_n} which have a value of efficiency close but not equal to 1 or 100% (Bhagavath 2009; Charnes et al. 1978) written in this way:

$$\max h = \sum_r u_r y_{rj_0} \tag{3}$$

s.t.

$$\sum_i v_i x_{ij_0} = 100\% Z_o$$

$$\sum_r u_r y_{rj_0} - \sum_i v_i x_{ij_0} \leq 0 \text{ with } j = 0, 1, \dots, n \text{ (for all } j) \quad \lambda_j$$

$$- v_i \leq -\epsilon \quad i = 0, 1, \dots, m \text{ and } \epsilon \text{ is a positive value} \quad s_i^+$$

$$u_r \leq -\epsilon \quad r = 0, 1, \dots, t \text{ and } \epsilon \text{ is a positive value} \quad s_r^-$$

In the dual problem, it is important to consider a dual variable in each constraint in the primary model (Charnes et al. 1978) written as:

$$\min 100 Z_o - \epsilon \sum_i s_i^+ - \epsilon \sum_r s_r^- \tag{4}$$

s.t.

$$\sum_j \lambda_j x_{ij} = x_{ij_0} Z_o - s_i^+ \quad i = 0, 1, \dots, m$$

$$\sum_j \lambda_j x_{rj} = y_{rj_0} + s_r^- \quad r = 0, 1, \dots, t$$

$$\lambda_j, s_i^+, s_r^- \geq 0$$

λ_j are shadow prices able to reduce the efficiency in each unit lower than 1 or 100% and a positive value of λ_j is able to assess a peer group in some inefficient unit.

This research has used an output oriented DEA method, whose aim is not to maximize the output but rather to minimize the output, such as emigration or people at risk of severe poverty, aimed at estimating the quantity of input that can be reduced when the quantity of output is constant and considering also the typology and input and output investigated in the model (Laurinavičius and Rimkuvienė 2017). According to these two authors the constant return to scale efficiency implies that as a growth in input is able to increase the same quantity of output and by contrast in the variable return to scale efficiency an increase of output is able to intensify in a different proportion the input hence, if output rises less than the input there is a decreasing return to scale (drs). Otherwise there is an increasing return to scale or irs (Coelli et al. 2005; Charnes et al. 1978; Farrell 1957; Battese 1992; Coelli 1996).

3. Results and discussion

In Romania after the collapse of the communist regime there has been a significant permanent emigration with more than 44,000 permanently emigrated people with a predominance of women over men. The trend of emigration has experienced several fluctuations as a consequence of economic crises and recession in 1995, in 2007 and in 2015 (Figure 1). Focusing the attention on the departures from the domicile in urban and rural area in Romania since 1991 to 2016 findings have pointed out significant departures from urban areas than rural ones which during the time have been stable with some peaks in time of economic crisis and recession (Figure 2).

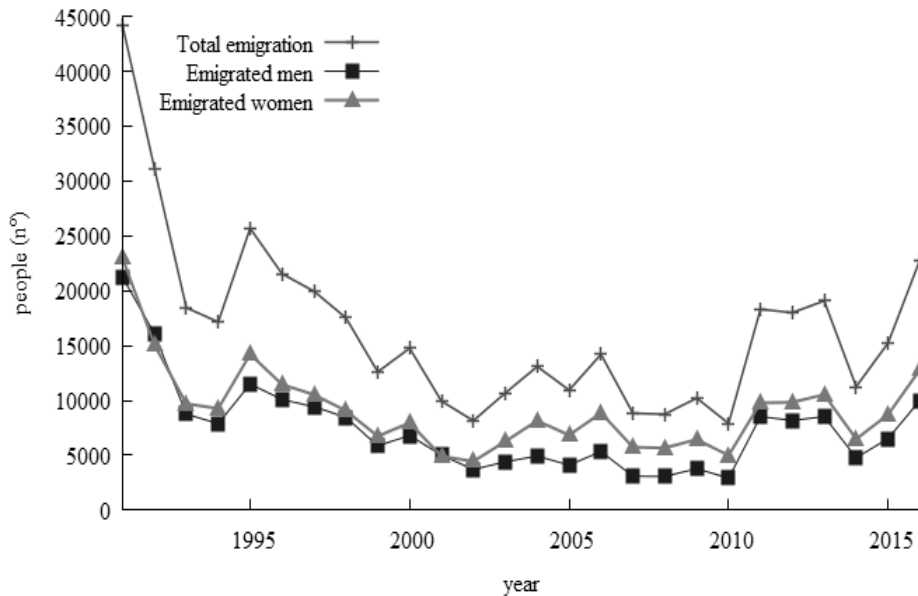
Table 2. Main correlations among investigated variables in all Romanian farms

	People at risk of poverty	Permanent emigration	CAP subsidies	RDP subsidies	Unemployed people
People at risk of poverty	1.00	-0.093	-0.1927	-0.1646	0.4624*
Permanent emigration	-0.0930	1.00	0.1079	0.0757	-0.3802*
CAP subsidies	-0.1927	0.1079	1.00	0.0546	-0.3901*
RDP subsidies	-0.1646	0.0757	0.0546	1.00	-0.0029
Unemployed people	0.4624*	-0.3802*	-0.3901*	-0.029	1.00

Note: * denotes significance at 5%

Source: author's elaboration on data http://ec.europa.eu/agriculture/rca/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>

Figure 1. Permanent emigration in Romania by sex of emigrated people

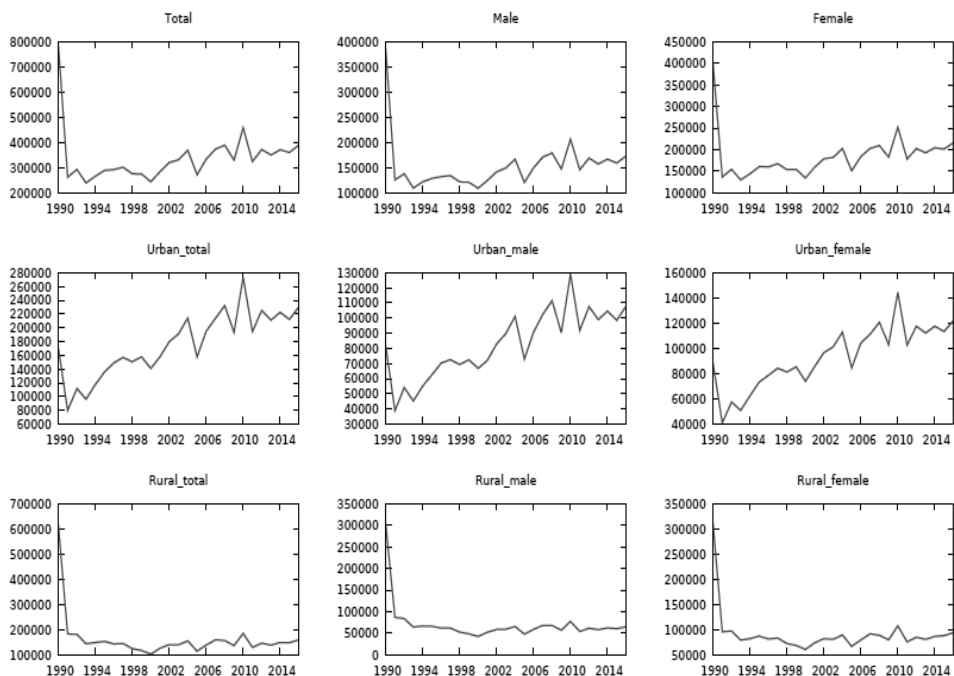


Source: author's elaboration on data <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>)

The correlation among all investigated variables described in table 1 has showed that population at risk of severe poverty correlates directly to the variable 'unemployed people' in Romania (Table 2). No effects have been assessed between the variable financial subsidies allocated by the second pillar of the Common Agricultural Policy and unemployment. An indirect correlation has been estimated between the variables 'permanent emigration' and 'unemployed people', as well as between the variable 'financial subsidies allocated by the first pillar of the Common Agricultural Policy', in terms of decoupled payments, and 'unemployed people'. Hence, an increase of decoupled payments implies a contraction of unemployed people due to a growth of job opportunities.

Since 1990 there has been an increase of unemployed people in Romania as a consequence of the collapse of the communist regime and a transition from a centralized economy to an open one even if, over the time of investigation, findings in this research have pointed out significant fluctuations in particular as a consequence of economic crises and recession phases which occurred in 2008-2009 (Figure 3).

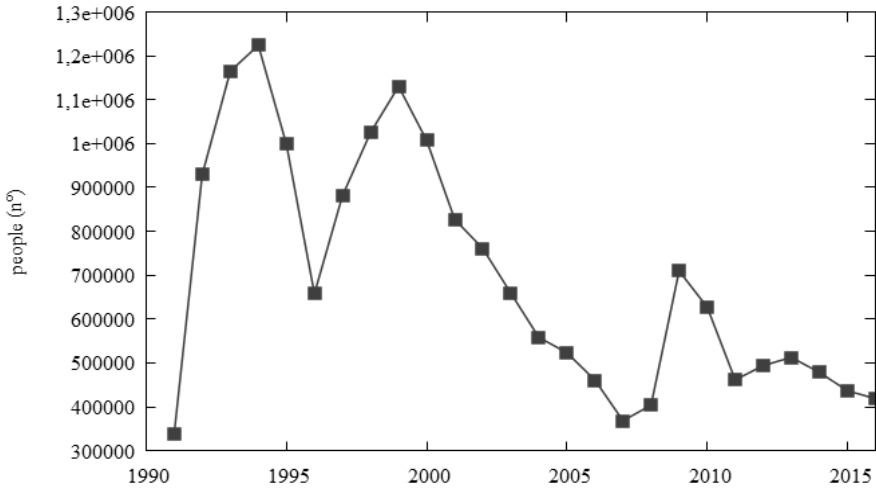
Figure 2. Departures from the domicile in urban and rural area in Romania



Source: author's elaboration on data [http://statistici.insse.ro/shop/index.jsp?page=tempo2 & lang=en&context=10](http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10)

Outcomes of research assuming an output oriented model in the DEA approach have pointed out that the best results, in terms of the lowest level of efficiency correlated to the poorest level of output produced, which in this case is the variable permanent emigration, have been found in the South-Muntenia region. The efficiency estimated in South-Muntenia region both in constant (CRS) and in variable return to scale (VRS) has been equal to 0.77 and 0.79; over the time, findings have pointed out a decrease return to scale long the frontier of efficiency (Table 4). The consequence is a reduction of inputs such as unemployed people and people at risk of poverty which are two variables able to reduce partially the permanent emigration because of their own direct impact on the level of efficiency by a drop in the inefficiency.

Figure 3. Unemployed people in Romania



Source: author's elaboration on data <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>

Table 3. Main findings in output oriented DEA model, using permanent emigration from Romania as output variable

Region	Constant return to scale (CRS)	Variable return to scale (VRS)	Scale	Scale
North-East	1.00	1.00	1.00	-
South-East	0.86	1.00	0.86	irs
South- Muntenia	0.77	0.79	0.96	drs
South-West- Oltenia	0.92	1.00	0.92	irs
West	1.00	1.00	1.00	-
Noth-West	1.00	1.00	1.00	-
Central	1.00	1.00	1.00	-
Bucharest- Ilfov	1.00	1.00	1.00	-
<i>mean</i>	<i>0.94</i>	<i>0.97</i>	<i>0.97</i>	-

Note: irs denotes decrease return to scale; drs denotes increase return to scale

Source: author's elaboration on data http://ec.europa.eu/agriculture/rica/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>.

Table 4. Main findings in output oriented DEA model, using people at risk of severe poverty in Romania as output variable

Region	Constant return to scale (CRS)	Variable return to scale (VRS)	Scale	Scale
North-East	1.00	1.00	1.00	-
South-East	0.99	1.00	0.99	irs
South- Muntenia	0.89	0.96	0.92	drs
South-West- Oltenia	1.00	1.00	1.00	-
West	0.81	0.88	0.91	drs
Noth-West	0.74	0.86	0.86	drs
Central	0.62	0.79	0.79	drs
Bucharest- Ilfov	0.56	0.69	0.81	drs
<i>mean</i>	<i>0.82</i>	<i>0.89</i>	<i>0.91</i>	-

Note: irs denotes decrease return to scale; drs denotes increase return to scale

Source: author's elaboration on data http://ec.europa.eu/agriculture/rca/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>).

Table 5. Role of financial subsidies allocated by the CAP in the output oriented DEA model using permanent emigration from Romania as output variable

Region	Constant return to scale (CRS)	Variable return to scale (VRS)	Scale	Scale
North-East	1.00	1.00	1.00	-
South-East	0.74	0.84	0.88	drs
South- Muntenia	0.74	0.80	0.92	drs
South-West- Oltenia	0.51	0.85	0.60	drs
West	0.99	1.00	0.99	drs
Noth-West	0.96	1.00	0.96	drs
Central	0.98	1.00	0.98	drs
Bucharest- Ilfov	0.91	1.00	0.91	drs
<i>mean</i>	<i>0.86</i>	<i>0.94</i>	<i>0.91</i>	-

Note: drs denotes increase return to scale

Source: author's elaboration on data http://ec.europa.eu/agriculture/rca/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>).

Table 6. Role of financial subsidies allocated by the CAP in the output oriented DEA model, using people at severe risk of poverty as output variable

Region	Constant return to scale (CRS)	Variable return to scale (VRS)	Scale	Scale
North-East	1.00	1.00	1.00	-
South-East	0.74	0.93	0.80	drs
South- Muntenia	0.68	0.96	0.70	drs
South-West- Oltenia	0.55	0.92	0.60	drs
West	0.45	0.88	0.51	drs
Noth-West	0.42	0.86	0.49	drs
Central	0.43	0.80	0.54	drs
Bucharest- Ilfov	0.49	0.69	0.70	drs
<i>mean</i>	<i>0.59</i>	<i>0.88</i>	<i>0.67</i>	-

Note: drs denotes increase return to scale

Source: author's elaboration on data http://ec.europa.eu/agriculture/rca/database/database_en.cfm and <http://statistici.insse.ro/shop/index.jsp?page=tempo2&lang=en&context=10>

In another output oriented model of efficiency analysis assessed by the Data Envelopment Analysis approach, estimating as output variable 'people at risk of severe poverty', findings have pointed out that 6 Romanian regions out of 8 have had a level of efficiency lower than 1 (Table 5) with the best results assessed in the regions of Bucharest-Ilfov and the Central region. The North-East and South-West-Oltenia regions have had the worst results characterized by the highest values of people at risk of poverty and social exclusion.

We have focused our attention on a model of efficiency able to assess whether the inputs 'financial subsidies allocated by the first and by the second pillar of the Common Agricultural Policy' play a role on the output of poverty and emigration as well. Research findings, in terms of average value, have pointed out a better impact of the CAP subsidies in reducing risk of poverty than in mitigating permanent emigration (Tables 5-6).

The best results have been found in the Romanian regions of South-West Oltenia, North-West and Central regions; these regions have shown the best results in terms of a low level of output produced or rather, have exhibited the lowest levels of people at risk of poverty due to a significant effect of financial subsidies and other financial supports allocated by the European Union in the first and second pillar of the Common Agricultural Policy (Table 6).

4. Conclusions

The financial subsidies allocated by the Common Agricultural Policy have been shown to have an overwhelming function in reducing the population at risk of poverty instead of lessening the emigration from Romanian countryside. This is a consequence of an upgrading phase in Romanian farms by an allocation of financial supports in the first and second pillar of the CAP aimed at improving the diversification of rural areas by an integrated and cohesive environment.

For the future, it is more important to also stimulate the development of infrastructures in rural areas at risk of marginalization and a turn-over of young generation in the management of farms with the purpose of using more efficiently subsidies allocated by the European Union throughout the multifunctionality and diversification of farm's activity such as rural tourism, agrotourism and traditional local food.

The emigration has exhibited an unstable pattern due to economic bubbles and the recessions, even though it is important to underline the pivotal role of the primary sector as a buffer sector able to solve partially the economic crises mitigating the emigration from the countryside.

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Changes in Age at Marriage, Birth Order, and Fertility Preference: A Study on a Flood Prone Area in Bangladesh

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Abstract: This study tried to understand the nexus between socio-cultural factors and fertility preference in a vulnerable (flood prone) area of Bangladesh. Socio-cultural factors influence age at first marriage of women and age at first birth of child. The factors also influence couples' fertility preferences. This study used both quantitative and qualitative methods to explore the relationships between socio-cultural factors and fertility preference in a flood prone area. This study reveals that women and men with a few years of schooling got married at an earlier age compared to others. Couples prefer to have child as soon as possible after getting married and the time span between two births is also short in the vulnerable area. This study finds that age at first birth of women depends on their age at first marriage. This study also reveals that couples experience a longer birth interval after the first birth, if the child is a son. This indicates the existence of gender preference. But there is no statistically significant difference between men and women in the study area. This study also highlights that the socio-cultural factors such as education, contraceptive use, gender preference, social pressures and religion influence vulnerable people to prefer more children along with adverse impacts of flood events. This study suggests further studies by considering a large sample from vulnerable areas and doing a comparative study between vulnerable areas and non-vulnerable areas to disaster events.

Keywords: age at first marriage, age at first birth, birth order, socio-cultural factors, vulnerable area

1. Introduction

Bangladesh is highly vulnerable to disaster events, floods being the most common events of this type in the area (Agrawala et al. 2003). The majority of the flood events occur in South-Asia (39%) and the impacts of flood events cause loss of life and economic loss (Dutta et al. 2004). The increasing adverse impacts of climate change makes life miserable for the people living in flood prone areas (BBS 2003). An increasing number of disaster events, and particularly floods, are caused by glaciers melting in the Himalayas, monsoon precipitation and intensity of cyclones (Huq 2002). Approximately 30 million people live in the vulnerable areas in Bangladesh (Peter and Zunaid 2008) and the country is in sixth position for the occurrence of more disaster events (Climate Risk Index 2015). Between 1980 and 2010 the country faced 234 disaster events and lost 191836 lives (German Watch 2015). Flooding affects not only the environment but also people's socioeconomic conditions such as income, education, occupational structure (Paul and Routray 2010). As a result, the socio-economical structure also influences the fertility behavior of Bangladesh people (Rabbi and Kabir 2013). For instance, culture supports having more sons in vulnerable areas (Hajian et al. 2008; Chowdhury and Harvey 1994). It also prohibits using contraception (Carr and Khan 2004) and having abortions (Adger et al. 2005; Collins et al. 2012). Fertility rates in vulnerable areas are relatively higher than national fertility rates and a large proportion of the people depend on agriculture and natural resources for their subsistence (PDO-ICZMP 2004). The patriarchal system, the lack of women's participation in reproductive decisions and the cultural restrictions on women working outside their home strongly affects fertility in Bangladesh (Jejeebhoy 1995; Khan and Raeside 2005). However, high fertility preference (Bongaarts 1994) and a large proportion of women at reproductive age (Population Reference Bureau 2007) can increase the population size in the country.

There are factors (e.g. age at marriage, contraceptive practices, abortion, and birth interval) that influence levels and differentials of fertility (Bongaarts 1993; Bongaarts and Potter 1983). In a study on Bangladesh Haq (2011) mentions that fertility preference and having a large family depends on the socio-economic conditions of couples (e.g. education, income, availability of works) and cultural factors (e.g. religious belief, respect to senior kin members), as well as environmental conditions (e.g. availability of land, water level, distance to resource collection). Sarker (2010) also mentions demographic factors (e.g. age at first marriage, age at first birth, the incidence of sterility, and use of contraception) that contribute to fertility. Early age at first birth provides a large reproductive span and subsequently, it increases the

number of children (Stephen 2003). Therefore socio-demographic and cultural factors shape population size, population composition and future population growth (Mathews and Hamilton 2009). This study aims to understand the influence of socio-cultural factors on fertility preference in an area vulnerable to flood events in Bangladesh. This study considers different socio-demographic and cultural factors in formulating its hypotheses. This study hypothesizes that women who are married at an early age are more likely to first give birth at early age. This study also hypothesize that couples who prefer to postpone their second birth are more likely to consider their first birth immediately after marriage. This study also hypothesize that people who live in vulnerable areas have a lower age at marriage, lower age at first birth and a high fertility preference particularly for sons, to recover damages from the impacts of flood events. This kind of study, which takes into consideration different natural disaster events in vulnerable areas can provide more insights and an in-depth understanding of population dynamics to population policy for developing countries like Bangladesh. Understanding the interaction between socio-demographic and cultural factors and impacts of disaster events is important for Bangladesh, since a large number of populations of the country face disaster events, and especially floods. Therefore, this study considers the impacts of flood events on population dynamics and selected the Sharat Pur village as one of the vulnerable areas to extreme flood events in Bangladesh.

2. Literature review

2.1. Age at marriage, fertility behaviour and birth intervals in Bangladesh

Kingsley Davis and Judith Blake (1956) systematically outlined that the birth of a child is not possible unless (1) sexual intercourse has occurred; (2) intercourse has resulted in pregnancy, and (3) pregnancy has been completed to successful term. In Bangladesh, the marriage legalizes the sexual intercourse, and thus the couple undertakes sexual intercourse to produce offspring. John Bongaarts (1978) also outlined four primary proximate determinants of fertility such as marriage, contraception, lactation, and induced abortion. In a study on Bangladesh and Sri Lanka, Caldwell (2005) found that age at marriage is lower for Bangladesh and Sri Lanka. For Bangladesh, early marriage is frequent and 66 % girls are married before the age of 18 (UNICEF 2011). The mean age at first marriage for girls is 16.8 years for the country (Streatfield et al. 2015). Meanwhile, age at marriage is influenced by several socio-economic and cultural factors (Sennot and Yeatman 2012). For instance, the level of education contributes to age at first marriage (Choe et al. 2015; Jisun 2016). A study in Malawi using DHS data and a bivariate and hazard proportional model

reveals that age, education, religion, region and ethnicity influence age at first marriage (Kumchulesi et al. 2011). A woman's birth interval patterns not only determine her pace of childbearing but also influence her fertility preference. Age at first marriage is related to birth intervals (Rabbi and Kabir 2013). Women usually prefer to have their first birth shortly after their marriage (Tu 1991). Ruth and Rebecca (1997) mentioned that birth intervals after the birth of a boy were longer than after the birth of a girl and that birth intervals for women with no son were shorter than for those with at least one son (Ronsmans and Campbell 1998). Alam (2015), in a study in Bangladesh using multivariate analysis, found some significant factors such as socio-economic status, age at first marriage, religion, division, partners' occupation, partners' education, age at first birth, current use of contraception and ever use of any contraceptive method which contribute to fertility trends and differentials in Bangladesh.

Figure 1 and Figure 2 show the number of children for married women by locality and birth interval with age groups for Bangladesh. Figure 1 shows that the percentage of married women with more than 5 children is high in rural areas peaking in 1999-2000 before dropping in 2007. Dropping of women with a large number of children and low preference to having more children influences the declining of fertility since the preference for a one or two child family increased in 2007 in both urban and rural areas.

Figure 1. Number of children by locality type (percent) in Bangladesh

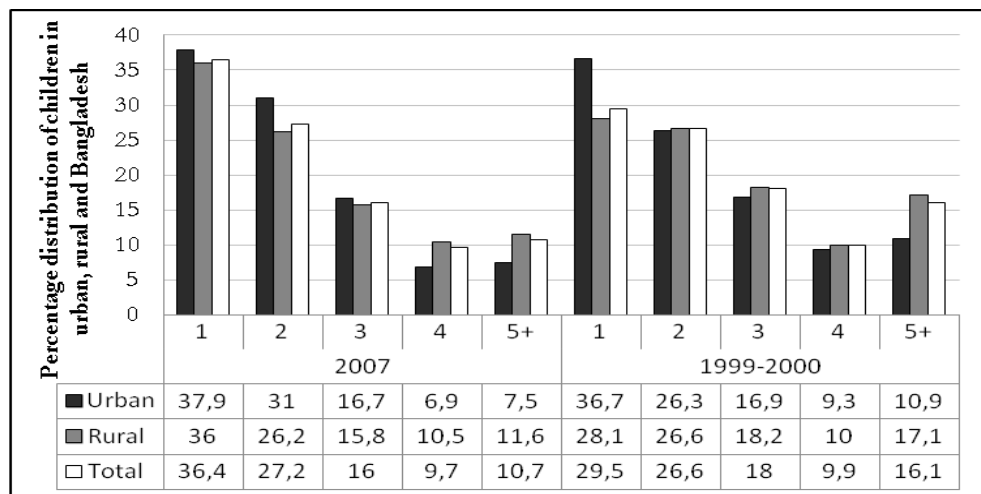
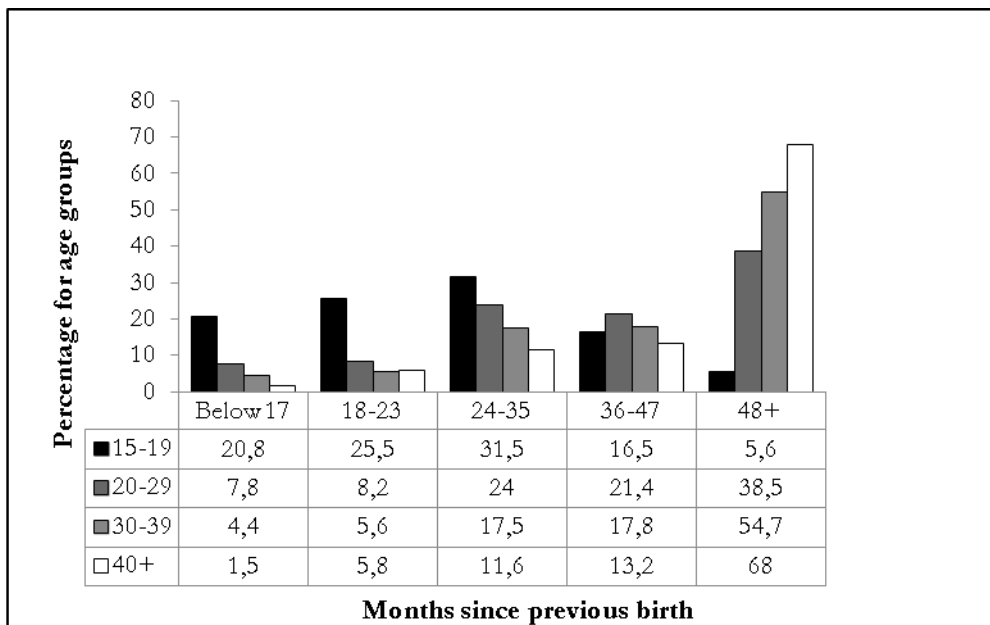


Figure 2 shows the birth interval (months since their previous birth) for women aged 14-49 years for 2007 in Bangladesh. It demonstrates that for 40+ year old women, the birth interval was more than 48 months since their previous birth, whereas for 15-19 year old women, the birth interval was below 17 months. This demonstrates that the low birth interval time is associated with younger women and the high birth interval is associated with older women (Alam 2015). Since young women are at the early stage of reproductive span, they prefer to go for next birth sooner than women who are at the late stage of reproductive span.

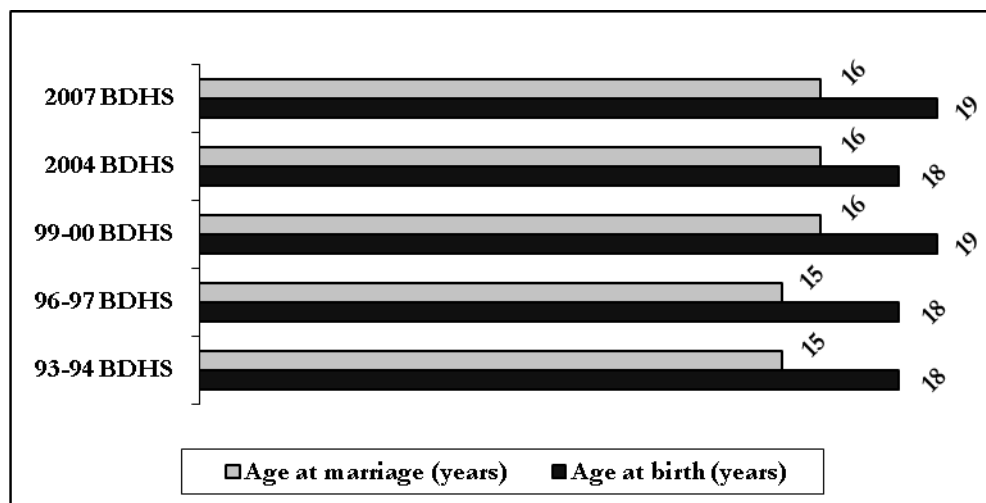
Figure 2. Percentage of birth interval (months since previous birth) in Bangladesh



Source: Macro International Inc, 2011

Figure 3 shows the age at marriage and the age at birth based on the Bangladesh Demographic and Health Survey (BDHS). This reveals that newly married couples prefer to have a child within 2 to 3 years after their marriage (Singh et al. 2007; Singh et al. 2013).

Figure 3. Age at marriage and age at birth in Bangladesh (BDHS Survey, 1993-2007)



Source: Data from the National Institute of Population Research and Training (NIPORT) 2008

2.2. Factors affecting fertility, reproductive decisions and contraceptive uses in Bangladesh

In Bangladesh, the fertility rates have dropped since the 1980s (Khan and Raeside 2005). The HDI (Human Development Index) of a country reveals the socio-economic status and level of development of a country. The HDI of a country ranked at a low level indicates that the socio-economic development of the country is low and that socio-economic indicators such as education and income are low. Studies conducted in Bangladesh on education and its relation to fertility aspects found that education delays marriage and birth. Education is inversely related with fertility preference. People with higher level of education have low fertility preference (Jensen and Rebecca 2003; Kabir et al. 2001; Erica and Attila 2005). Bongaarts and Watkins (1996) mentioned a negative correlation between fertility and HDI. If the HDI is ranked low, the fertility rate of the country will be high. Education as one of the core indicators in the calculation of HDI influences fertility and ranking in HDI for a country.

Family planning programs also contribute to controlling fertility. Different media campaigns and NGO workers have played potential roles in influencing women's participation in education and reproductive decisions, and subsequently, in the reduction of fertility (Phillips et al. 1996; Koenig et al. 1997). Family planning workers convinced people about the benefits of a small

family on future wellbeing in rural areas (Cleland et al. 1994). Family planning programs have also changed aspirations and values, and therefore the tendency for early marriage and early birth (Hossain et al. 1999; Hossain and Khan 2000). In a study in Bangladesh, Kamal et al. (2015) showed that Muslim women living in rural areas have a greater risk of child marriage, while women's education level was the single most significant negative determinant of child marriage.

Cleland et al. (1994) argued that social forces highly influence reproductive choices worldwide. Economic and social institutions, such as demand for extra labor, religion, values etc. support high fertility preference. A study by Rahman and Julie (1993) in Matlab, Bangladesh found that if a woman has at least one daughter, the chance of a subsequent birth is negatively related to the number of sons. Rahman and Julie (1993) concluded that son preference is strong in both the early and later stages of family formation, but women also want to have at least one daughter after having several sons. This is related to the fact that parents consider that their children, and especially their sons will provide a dependable form of assistance (Cain 1978) and serve as future security (Cleland et al. 1994). Becker (1981) mentioned that rural poor people face a dilemma between giving their children good educational opportunities and putting them into traditional work. Instead of sending children to education, they prefer sons who can be part of the labor force (Cleland et al. 1994; Ahmed and Quasem 1991). Gorney (2011) argued that a girl's education becomes shortened not only by early marriage but also because of practical considerations of their parents, who prefer to invest financially in their sons. Hossain et al. (2007) argued that Bangladesh is strongly gender stratified. By controlling for the wives' and husbands' background characteristics, they found a significant relation between husband's fertility preference and use of contraception. Belt (2011) reported that one government health worker in Satkhira, Bangladesh claimed that this is a conservative country, and men put pressure on women to have lots of children. Hosain et al. (2007) suggested that men's knowledge, attitude to and support of wives' preference need to be enhanced in order to improve the reproductive autonomy of women in the country.

Socio-psychological constraints on the contraceptive use such as lack of money, difficulties in transportation and access to medical facilities, religious values etc. are influential in rural Bangladesh (Hermalin 1983; Schearer 1983). The factors constrain women against the motivation for contraceptive use and collecting contraception (Chen et al. 1981; Cleland et al. 1994). Moreover, a study based on the 1975–76 Bangladesh Fertility Survey showed that the

mortality of sons, and not daughters, was associated with a lower rate of initiation of use of female contraception and a higher rate of discontinuation of of female contraception (Cleland et al. 1994; Johnson and Sufian 1992).

3. Methodology

3.1 Study locations and socio-demographic characteristics

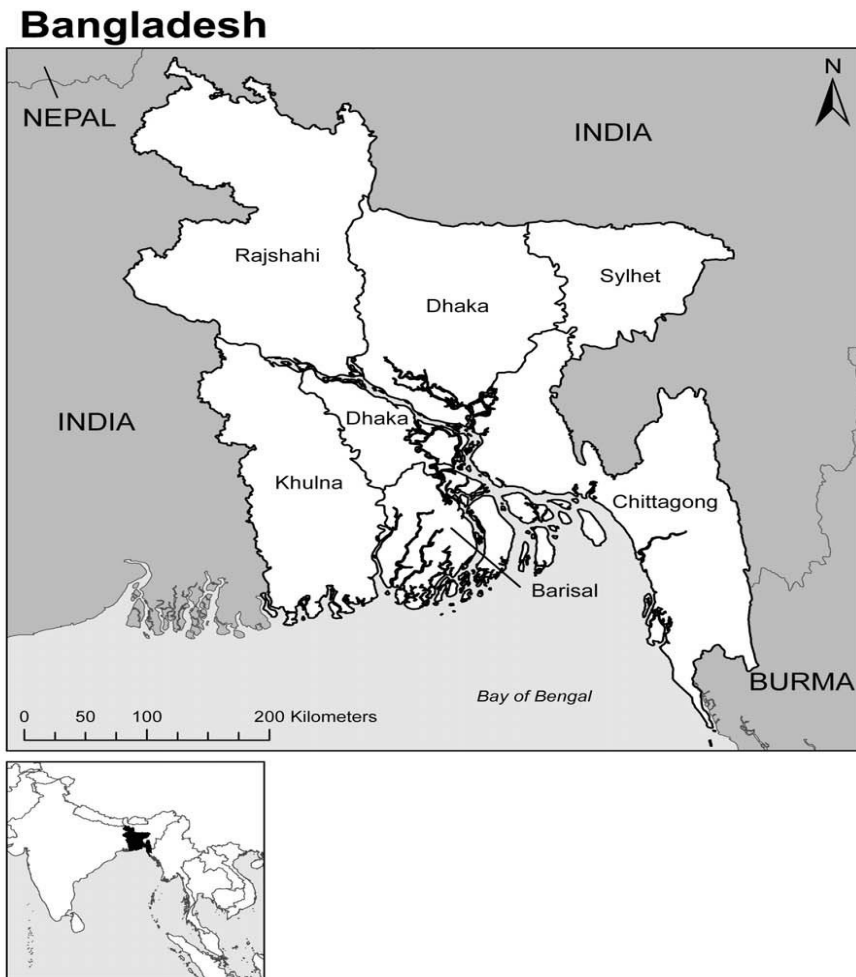
Bangladesh emerged as an independent and sovereign country in 1971. The country is located in South Asia and is one of the largest deltas of the world. The total area is 147,570 sq. km and the population is about 146.6 million. One of the most densely populated countries in the world is Bangladesh. 88.7 percent of the households in Bangladesh are headed by men and only 11.3 percent of the households are headed by women (Bangladesh Bureau of Statistics 2007). The major areas of Bangladesh are located within the broad delta formed by the rivers Ganges, Brahmaputra, and Meghna (Bangladesh Demographic Health Survey (BDHS) 2007). The country is divided into 64 districts and 496 upazilas (sub-districts) (Bangladesh Bureau of Statistics (BBS) 2001). A map of the country is shown in Figure 4.

The village under study, Sharat Pur, is located in Jamalganj Upazila in Sunamganj District, which has an area of 338.74 sq. km. The Upazila has three main rivers named Nawa Gang, Baulai and Dhanu, and floodplains named Pakna Haor and Hail Haor. The total population is 107,771 with 55,769 males (51.75 percent) and 52,002 females (48.25 percent). The literacy rate (7+ years) is 20.1 percent whereas the national average is 32.4 percent and the population (18+ years) is 53,158 in Jamalganj (Bangladesh Bureau of Statistics (BBS). Figure 5 shows the Jamalganj Upazila in Sunamganj District where the village of Sharat Pur is situated. This study selected the Sharat Pur village from Jamalganj Upazila in Sunamganj (Bangladesh). Sunamganj District is vulnerable to sudden flash floods coming down from the hills across border in India (IFAD 2010). The Upazila is extremely vulnerable to the impacts of climate change and people living in the Upazila face frequent flood events (Haq and Ahmed 2017). We selected the Sharat Pur village of Jamalganj Upazila from the Sunamganj District as a vulnerable area to explore the link of socio-cultural factors and fertility preference.

We observed the variation of fertility rate from the Bangladesh Demographic and Health Survey (BDHS 2007, 2011 and 2014), and found a variation of fertility in terms of division of Bangladesh. As the BDHS survey (2007, 2011 and 2014) showed, fertility is higher in Chittagong and Sylhet division in comparison to other divisions (Figure 6).

This study included 158 respondents from the village. 60 male and 98 female respondents were included by using convenient sampling (Table 1). The field survey was conducted in 2012 between January and May. Table 1 reveals that almost 63% respondents have little education (0-2 years of schooling), while only a little fraction have primary (3-8 years of schooling) and secondary (9-14 years of schooling) school education. Furthermore, the mean number of children per woman is 3.8. 37% of respondents have 3 to 4 children (Table 1).

Figure 4. Map of Bangladesh



Source: Bangladesh Demographic Health Survey (BDHS)

3.2 Sampling technique, data collection and data analysis

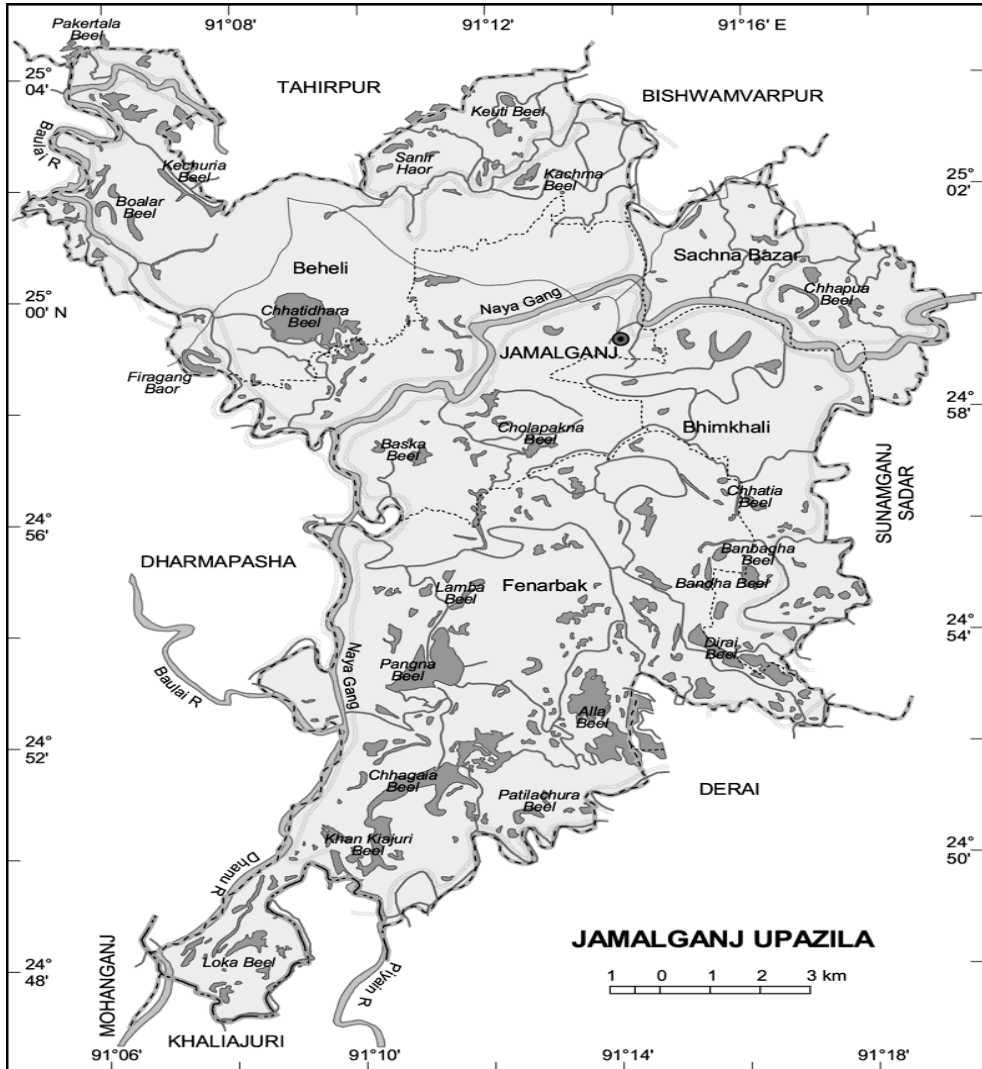
Four stage stratified sampling technique was followed to select respondents while sample determination technique included 158 respondents (randomly 60 male and 98 female) from representative samples of 808 individuals living in Sharat Pur village. The minimum age for the study respondent was 16 years (Table 1). To ensure this, a four stage stratified random sampling design established the vulnerable area (severely flood prone) as the primary sampling units (District) of the research area; the specific vulnerable area such as Upazila (Sub-district) constitutes the second stage sampling unit of areas; the specific village (Sharat Pur) from the Upazila was selected as a third stage of sampling unit; then, finally respondents (Household members) were selected as the ultimate sampling units for this study (Haq and Ahmed 2017).

This study combined qualitative and quantitative methods (Hummel et al. 2012; Sydenstricker-Neto 2012) as the use of both methods can facilitate in-depth understanding of the mechanism regarding the notion of fertility preference and socio-demographic dimensions. This study explores the impacts of socioeconomic and cultural aspects on the fertility behaviour. Particularly the household survey collected information on the socio-demographic and cultural aspects regarding the fertility preference of the population in the study. We included one member of each married couple (either husband or wife) from every household, who we followed strictly due to sampling representativeness. Thus, we skipped the households where we didn't find any married spouses during our field survey. Afterwards, an in-depth interview was conducted to ascertain the socio-cultural aspects which influence their fertility preference as well as the gender preference. Therefore, we used 'Judgement sampling' (Islam 2008) where individuals were selected who are considered to be the most representative of the population as a whole for an in-depth interview. It is a judgement sampling because the choice of the individual units depends entirely on the sampler, who, on his own judgement, decides the sample to be selected that conforms to some criteria (Islam 2008). To conduct this study, we took the help of female assistants to discuss about the fertility issue and contraceptive use, and they spoke to female respondents, as the latter are too conservative to discuss fertility issues with unknown males.

This study analyses the socio-demographic characteristics of respondents using descriptive statistics by SPSS. Particularly, we included the findings in a contingency table as it highlights key information. Furthermore, we collected some qualitative information from 15 respondents and we used paraphrased translation of key qualitative information (Haq and Ahmed 2017). The qualitative information provides insights into local people's thinking about

the reasons for gender preference, the influence of sociocultural aspects on fertility preference, and contraceptive use.

Figure 5. Map of Jamalganj Upazila, Sunamganj District



Source: <https://www.thebangladesh.net/upazilas-of-sunamganj/jamalganj-upazila.html#upazila-map>

Figure 6. Trends in total fertility rates by division, 2007, 2011 and 2014 BDHS

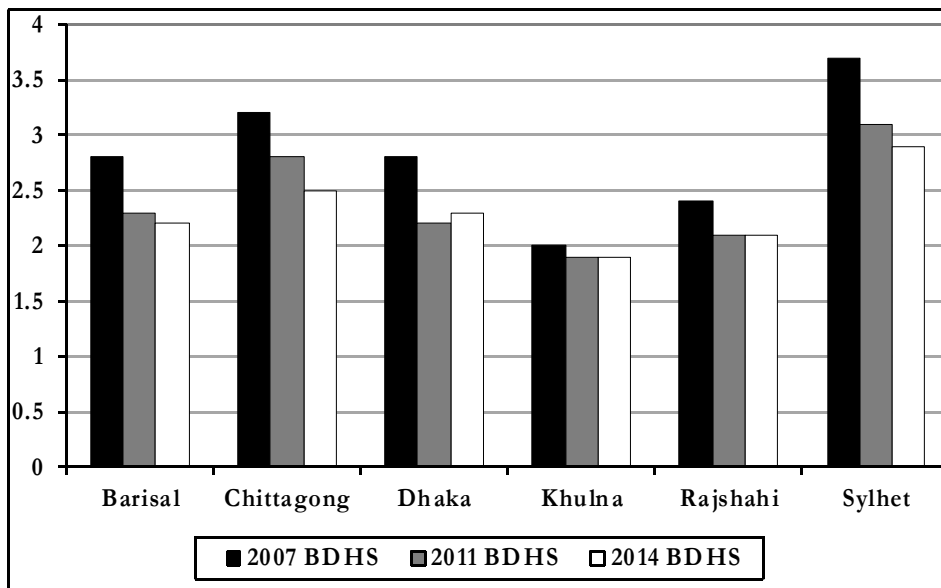


Table 1. Socio-demographic characteristics of respondents (Sharat Pur, Bangladesh)

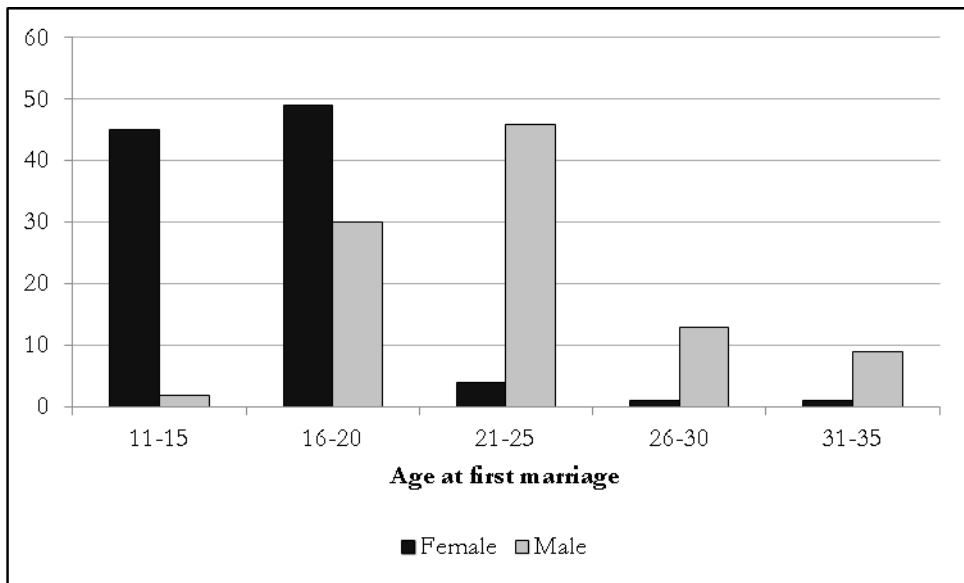
Socio-demographic characteristics Percent (N)			
Gender		Years of schooling	
Male	38 (60)	0-2	63 (99)
Female	62 (98)	3-8	25 (39)
Total	100 (158)	9-14	13 (20)
		Total	100 (158)
Religion		Number of children (Mean 3.8)	
Islam	77 (122)	1-2	30 (38)
Hindu	23 (36)	3-4	37 (46)
Total	100 (158)	5-6	19 (23)
		7-8	12 (15)
Age (years)		9-10	2 (3)
16-2	29 (46)	Total	100 (125)
26-35	20 (32)		
36-45	24 (37)		
46-55	13 (21)		
56-65	7 (11)		
65+	7 (11)		
Total	100 (158)		

4. Results and discussion

4.1. Gender and age at first marriage

The results of this study show that most of the female respondents were married before reaching the age of 18. The mean age at first marriage for men and women was 24.1 and 15.6 years respectively. Figure 7 shows that 45 percent of the female respondents were married between 11 and 15 years of age, and 46 percent of males were married between 21 and 25 years of age. About 94 percent of females were married before reaching 20 years of age. Many respondents aged 26-35 years and 36-45 years married between 11 and 15 years (Figure 7). This indicates the prevalence of early marriage for girls in the area of the Sharat Pur village, which is vulnerable to extreme floods.

Figure 7. Distribution of male and female respondents by age at first marriage



4.2. Religion and age at first marriage

This study included 77.2 percent Muslim and 22.8 percent Hindu respondents in the study. Table 2 shows that particularly, 26 percent of the respondents were married by the age of 15 years. 35 percent of the respondents who are Muslim were married at ages between 16 and 20 years. On the other hand, 4 percent and 8 percent of the respondents who are Hindu were married by 15 years and between 16 and 20 years. Results show that very few respondents from both religions were married at 20 years or above. The mean age at first

marriage for Hindus and Muslims was 22.3 years for men and 17.6 years for women respectively. This indicates that women who are Muslims get married under 18 years and the occurrence of early marriage is high among Muslims compared to Hindu in the study area.

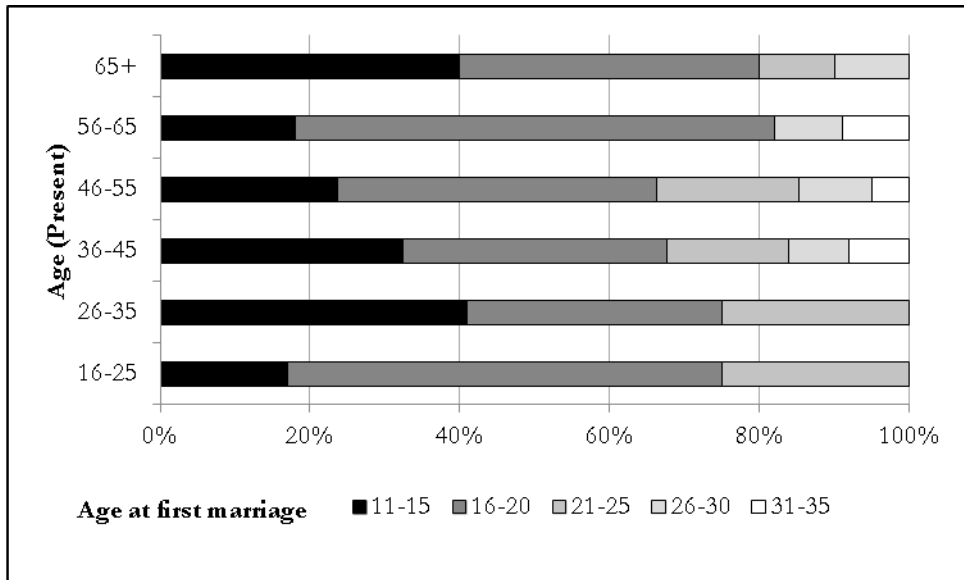
Table 2. Religion and age at first marriage in Sharat Pur, Bangladesh

Religion	Age at first marriage (years)					Total: Percent (N)
	11-15 Percent (N)	16-20 Percent (N)	21-25 Percent (N)	26-30 Percent (N)	31-35 Percent (N)	
Hindu	18 (5)	43 (12)	14 (4)	11 (3)	14 (4)	100 (28)
Muslim	33 (35)	43 (46)	20 (21)	4 (4)	1 (1)	100 (107)
Total	30 (40)	43 (58)	19 (25)	5 (7)	4 (5)	100 (135)

4.3. Age and age at first marriage

More than half of the respondents (women) aged over 36 got married between 11 and 15 years old (see Figure 8). This indicates that the majority of the respondents who are in their middle age or above were married at an earlier age compared to the respondents who are at 16-25 years. Their age at first marriage was between 16 and 20 years (see Figure 8). Older individuals got married at very young ages compared to the younger married women in the studied village. Figure 8 shows very few respondents aged 16-25 years who were married at their very young age. During the field study we found that older people particularly (50+) mentioned that they did not know that getting married below 18 years is prohibited by Bangladesh law. They said that their parents arranged their marriages. They mentioned that 15-20 years ago it was very common for women to get married before reaching 18 years. They said that many people did not consider age at first marriage under 18 a major concern 15-20 years ago.

Figure 8. Percentage distribution of respondents by their age and age at first marriage



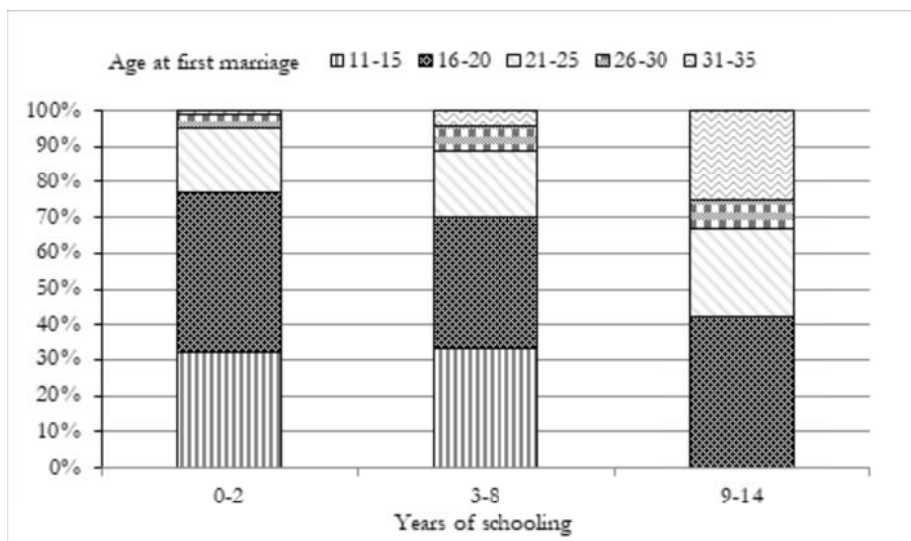
4.4. Years of schooling and age at first marriage

Regarding age at marriage and years of schooling Figure 9 shows that for 0-2 years of schooling, 32 percent of the respondents were married between 11 and 15 years and 45 percent were married between 16 and 20 years. Results show that respondents with 9-14 years of schooling were not married at the age of 11-15 years. About 60 percent of the respondents with 9-14 years of schooling were married at age 20 or above. This indicates that education influences age at marriage. We can say that people who have fewer years of schooling are more likely to get married at their early age. We can also say that people who have more years of schooling are more likely to get married at 18 years or above in vulnerable areas.

Table 3 shows that 46 percent of female respondents with 0-2 years of schooling married at 11-15 years. 48 percent of female respondents with 0-2 years of schooling married at 16-20 years. 47 percent of male respondents with 0-2 years of schooling married at 20-25 years. A small percentage of female respondents with 9-14 years of schooling were married at 16-20 years. Results also indicate that female respondents with more years of schooling were married at 20 years of age or below (see Table 3). But no male respondents with 9-14 years of schooling married at 16-20 years of age. Results highlight 40 percent and 47 percent male respondents with 0-2 years of schooling were

married at 16-20 years and 21-25 years. We find that women had fewer years of schooling than men and married at an earlier age than men.

Figure 9. Percentage distribution of respondents by age at first marriage and years of schooling in Sharat Pur (Bangladesh)



4.5. Age and actual number of children

Results show that older individuals have more children. In the study area, respondents who participated in the survey were at different age levels. Older respondents had more children than those who were young. Respondents who were aged below 25 years had four as the highest number of children. For the 26-35 age category, 7 percent of the respondents had 5/6 children and only 3 percent had 7/8 children. For the 36-45 age categories, 27 percent and 14 percent had 5/6 children and 7/8 children consecutively. For the age category 46-55, 38 percent, 19 percent and 10 percent respondents had 5/6 children, 7/8 children, and 9/10 children respectively. Older individuals got more time to have children. The field survey revealed that young respondents usually prefer fewer children compared to old age respondents. Respondents also prefer having more children within a short interval within their first few years of marriage.

Table 3. Gender, years of schooling and age at first marriage in Sharat Pur (Bangladesh)

Years of schooling		Age at first marriage (years)					Total: Percent (N)
		11-15 Percent (N)	16-20 Percent (N)	20-25 Percent (N)	26-30 Percent (N)	31-35 Percent (N)	
0-2	Male	3 (1)	40 (12)	47 (14)	10 (3)	0 (0)	100 (30)
	Female	46 (30)	46 (31)	4 (3)	2 (1)	2 (1)	100 (66)
3-8	Male	0 (0)	20 (2)	50 (5)	20 (2)	10 (1)	100 (10)
	Female	53 (9)	47 (8)	0 (0)	0 (0)	0 (0)	100 (17)
9-14	Male	0 (0)	0 (0)	33 (2)	17 (1)	50 (3)	100 (6)
	Female	0 (0)	83 (5)	17 (1)	0 (0)	0 (0)	100 (6)
Total: Percent (N)		30 (40)	43 (58)	19 (25)	5 (7)	4 (5)	100 (135)

4.6. Religion and actual number of children

For the actual number of children and religion, Table 4 shows that Hindus and Muslims had 3.6 and 3.8 children respectively. No Hindus had 9 or 10 children whereas a few Muslims had this number of children. 44 percent of Hindus and 35 percent of Muslims had 3-4 children respectively. However the Bangladesh government encourages couples not to consider further child bearing after having two children irrespective of the gender of their children. In the study, the median number of children was three for Hindus and four for Muslims. This indicates that Muslims had more children compared to Hindus. In general, the average number of children was 3.8 per couple in the vulnerable area. This indicates that people living in Sharat Pur have more children irrespective of their religious backgrounds.

4.7. Age at marriage and birth interval

This study finds a significant difference between age at first marriage and age at first birth. Mean age at first marriage for women was 15.6. It reveals the prevalence of early marriage in the Sharat Pur village. Particularly, those who were married before 15 years had their first child within one or two years of their marriage. 14 percent of them had their first child after 16 years but before 20 years. The field survey found that a little fraction mentioned that they considered having a child after two years of their marriage. Of the 25 percent of respondents who were married between 16 to 20 years, about 25 percent

had a child in the time. Additionally, 15 percent of respondents of the 16-20 category had their first child after 20 years but before 25 years. Those who were married between 21 to 25 years, 26 to 30 years, 31 to 35 years consecutively, mentioned that they prefer to have a child immediately after their marriage. As they got married late, they did not want to wait for the first child after their marriage. This study reveals that 2 percent of women had their second child before reaching 15 years. In addition, 21 percent and 15 percent had their second child within 21 to 25 years and 26 to 30 years. This study also finds that the respondents took a long gap between their first birth and second birth such as more than 4/5 years.

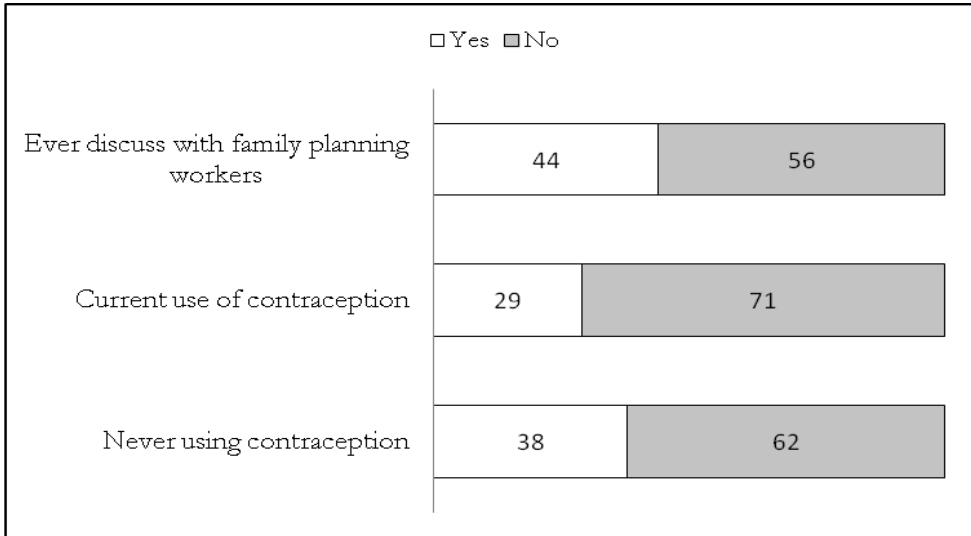
Table 4. Religion and actual number of children in Sharat Pur, Bangladesh

Religion	Number of children					Total: Percent (N)
	1-2 Percent (N)	3-4 Percent (N)	5-6 Percent (N)	7-8 Percent (N)	9-10 Percent (N)	
Hindu	32 (8)	44 (11)	16 (4)	8 (2)	0 (0)	100 (25)
Muslim	30 (30)	35 (35)	19 (19)	13 (13)	3 (3)	100 (100)
Total	30 (38)	37 (46)	18 (23)	12 (15)	2 (3)	100 (125)

4.8. Reproductive decisions and contraceptive use

Figure 10 shows that 71 percent of respondents were not using contraception during the interview period, while 62 percent mentioned that they never used contraception. This indicates that most people living in Sharat Pur village do not use contraception while the contraception prevalence rate in Bangladesh is 61.2% (World Fact Book 2015). The family planning worker working in this village mentioned that those who usually use contraception are women. Men usually do not use contraception and they are not interested in using it as men (husbands) believe that using contraception is the responsibility of their wife. More than half of the respondents (56%) mentioned that they never discussed with family planning workers the use of contraception and family planning issues such as the benefits of a small family size (see Figure 9). The family planning worker mentioned that they stop using contraception when their husband and other family members want to have more children and the women also expected to have sons.

Figure 9. Contraceptive use and discussions with family planning workers in Sharat Pur (Bangladesh)



The family planning worker mentioned that using contraception and reproductive decisions sometimes depended on the decision and attitudes of the husband and mother-in-law. Additionally, a larger percentage of people say that they and their spouse both have a say in reproductive decisions (73%). However, during the field survey, it was also found that other family members such as parents-in-law or close relatives are influential in reproductive decisions (24%) (See Table 7). However, during the field survey, it was also found that other family members such as parents-in-law or close relatives are influential in reproductive decisions.

Table 7. Percentage distribution of respondents regarding reproductive decisions and contraceptive use

Variable	Both (husband and wife) Percent (N)	Husband Percent (N)	Others Percent (N)	Total: Percent (N)
Who takes reproductive decision and decision for contraceptive use?	73 (29)	3 (1)	24 (10)	100 (40)

5. Birth order, gender preference and socio-cultural factors

The results regarding the gender background of respondents and gender preference by birth order are shown in Figure 10 and Figure 11. For the first child, a few male respondents had a gender preference compared to female respondents. For the second and fifth child, a higher percentage of male respondents (61 and 40 percent respectively) had a higher gender preference than female respondents (46 and 29 percent respectively). Many respondents who did not have a gender preference over their second and fifth child were female (54 and 71 percent respectively) compared to male respondents (40 and 60 percent respectively). For a third child, a higher proportion of females had a gender preference compared to males. But a higher percentage of females than males had no gender preference for their second and fifth children. However a few female respondents had a gender preference for their seventh child whereas no male had any gender preference. But very few females had a gender preference regarding their seventh child. This means that males living in vulnerable areas have greater gender preference than females (see Figure 10 and Figure 11). From the table, we can say that people living in vulnerable areas have a gender preference but the preference for different births for males and females was not the same among the male and female respondents. The field study found that although people want to have both (male and female children) they mentioned at least one more son than the number of daughters.

Figure 10. Male respondents and gender preference in Sharat Pur (Bangladesh)

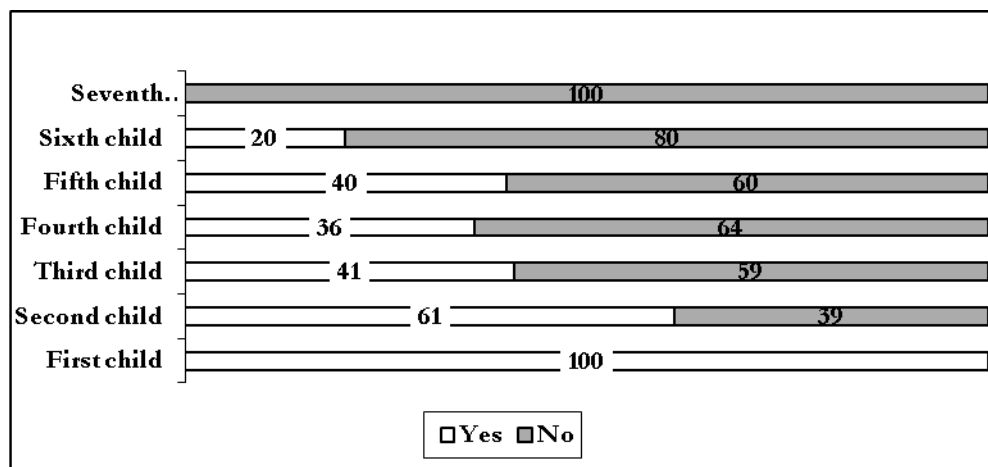
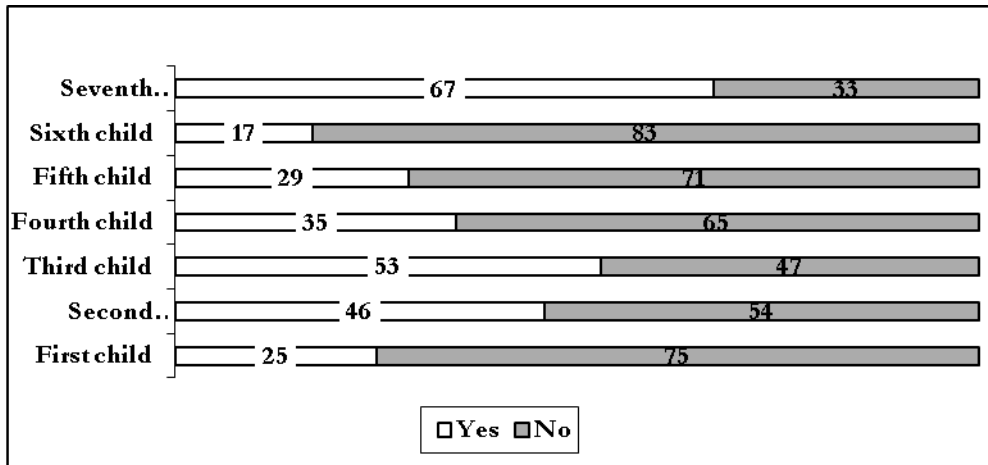


Figure 11. Female respondents and gender preference in Sharat Pur (Bangladesh)



Women want to have their first birth as soon as possible. They are especially influenced by their mother-in-law and husband. Women who are married do not feel secure until they give birth to a child. They consider that having a child, and especially a son will strengthen their marital life and lead to a strong bond with their husband, and also with other family members. If there is any delay of the first birth, women are usually pressured by other family members and people think they are unable to give birth, and therefore they lose importance and value. As a result, after marriage, women have the tendency to give birth early to strengthen their marital life and prove they are capable of having children. However, responsibility for any delay in births is never ascribed to husbands. The husband's ability to reproduce is considered of secondary importance by people of low socio-economic status.

After having a first child of any gender, more children are expected. If the first child is a daughter, there is great expectation that the second child will be a son. If they have more daughters at the first child or second child of their total expected number of births then they aim to have at least equal numbers of sons and daughters. We can say that people realize fertility preference when they have equal numbers of sons and daughters or have more sons. Figure 12 shows a relatively higher proportion of females for second to fourth child. This indicates that there is no sex selective abortion or infanticide. If sex selective abortion was being practised then the proportion of males for third or fourth child would be higher than for females. In the case of Sharat Pur, the proportion of female children for second, third and fourth birth is higher compared with males. Some people living in areas vulnerable to extreme

flooding events have a gender preference at every birth. The only exception is the first birth. However, gender of first birth influences the timing and gender preference for the second birth. Some people did not have a gender preference for their first child or second child but wanted to have the same number of children of both genders. However, the field survey found that they consider that more sons can contribute to their family welfare, for example, by earning money and helping to move to a safe place during flood events. People living in this study village (Sharat Pur) usually consider that women are discouraged to go out for work. People mentioned the religious restrictions on women: that they cannot go out and work with men.

Figure 12. Birth order and gender of children in Sharat Pur (Bangladesh)

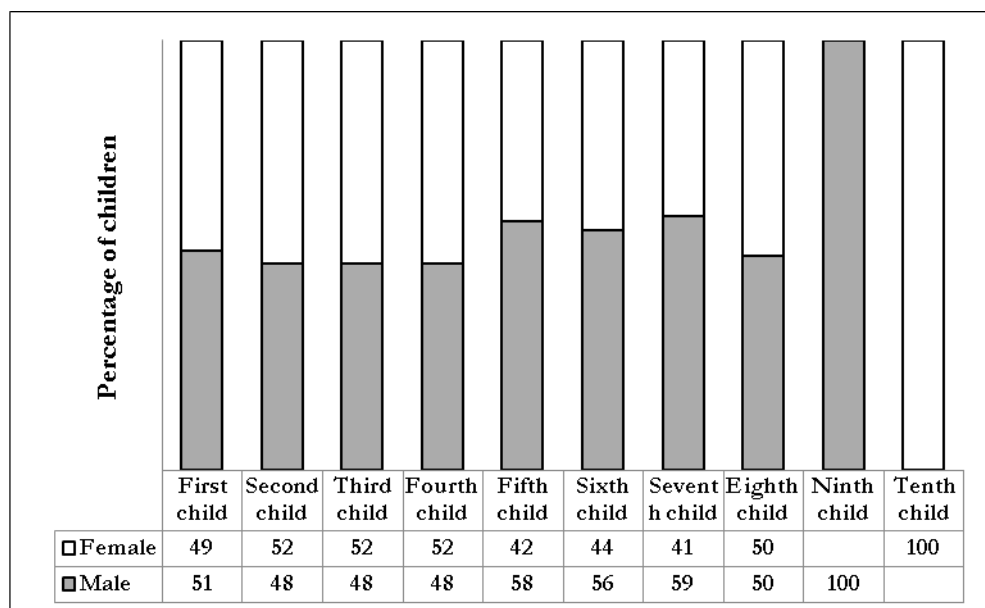


Figure 12 shows a relatively higher proportion of females in relation to second, third and fourth children and a higher proportion of males than females for the fifth to seventh birth. Table 9 demonstrates that 15 percent of the respondents had a first child and 23 percent had second, third and fourth children respectively. Fourteen percent of the respondents also had a fifth child. However, the Bangladesh the government encourages people to consider to stop bearing children after two children whether or not the two children are male or female. The tables show that people in vulnerable areas consider

continuing to have children even after their fourth or fifth child and that they also have a gender preference at different births.

Table 9. Birth order and number of children in Sharat Pur (Bangladesh)

	Number of respondents	Percent	Cumulative percent
No children	3	2	2
First child	15	12	14
Second child	23	18	32
Third child	23	18	50
Fourth child	23	18	68
Fifth child	14	11	79
Sixth child	9	7	86
Seventh child	9	7	93
Eight child	6	4	97
Ninth child	2	2	99
Tenth child	1	1	100
Total	128	100	100

In general, we know that in the absence of manipulation, the normal sex ratio at birth is 105 boys for every 100 females born (Hesketh and Xing 2006). According to the estimate of the Bangladesh Bureau of Statistics (BBS) (2011), the sex ratio at birth is 104 boys for every 100 females born. Though sex ratio at birth was higher for females for second, third and fourth children, it was higher for males for the fifth, sixth and seventh child in Sharat Pur. This indicates a cultural preference for boys and there may be some level of human interventions such as sex-selective abortion. But nobody mentioned during the field study that they went to identify the sex of the foetus and had an abortion at a clinic. During the field survey, it was observed that a few of the respondents living in the village believed that having an abortion was a sin. If someone wants to have an abortion, he/she needs to discuss it with someone who knows where and how it can be done. It was observed that most people living in the village do not have enough money to go to a clinic and have an ultrasound test to identify the sex of the foetus if someone wants to have an abortion. The field study found that most of the people live at subsistence level and borrow money to repair damage after extreme events. However we can't say that sex selective abortion might occur in the vulnerable areas until we include a large sample size to see any significant variation for sex ratio at birth

from the normal. Our study only included one village vulnerable to extreme weather events (floods). According to the registry book concerning the number of the population in Sharat Pur, total males and females are 403 and 405 respectively and the sex ratio for the total population in the village is 99.5 males:100 females. This suggests that the sex ratio at birth has random variation since the sample size was small. But there may be other factors influencing the variation of the sex ratio at birth, which were not explored in this study.

We can say that people living in vulnerable areas have a gender preference but the preference for different births for males and females was not the same among the male and female respondents. The field study found that although people want to have both (male and female children) they mention at least one more son than the number of daughters. From the paraphrased translation of respondents' opinions on son preference we found that people living in the vulnerable area desire to have more sons than daughters because sons can handle difficulties, earn more money, help to rebuild houses, repay loans and go out and move easily. People who had a preference for sons mentioned the need to have more sons to tackle the adverse impacts of extreme floods (Haq 2013). Their argument is that they are usually affected by floods every year. Some paraphrased translations are highlighted below:

Boys can move possessions to a safe place, can save others and can swim, but most girls cannot swim (married woman, Islam, 19 years).

Boys can easily save important belongings from extreme floods but girls cannot go out or work with boys since this is forbidden by Hinduism (married woman, Hindu, 22 years).

Boys can handle any difficult situation since they are physically able to work hard and are able to tackle crises (married woman, Islam, 23 years).

If we have more boys, we do not need to borrow money with high interest from business men or NGOs and we will not face so many repayment problems. She added that if we have more sons, they can do hard work and earn money (married woman, Islam, 38 years).

Only boys are permitted by religion to go out and girls are not able to do the same work as boys can do (married woman, Islam, 42 years).

Boys can help to rebuild houses destroyed by extreme floods and they can go out to collect resources, but girls cannot go out and it's not good for girls to go out for work or collecting resources (married woman, Hindu, 45 years).

6. Summary and conclusion

Results show that educational level and religious values are strongly related with age at birth, age at marriage and desired number of children. Those with a low level of education often marry early, have children soon after marriage, have more children, especially sons, and rarely use contraception. In the Sharat Pur village, most of the Muslim female respondents were married at a very early age. Particularly more Muslim females than Hindu females experienced early marriage. This study also exposes that elderly individuals in the community had usually married at an earlier age than the current younger members. Additionally, young couples have more children within the first few years of their marriage, while their actual number of children increases with the increase of their age.

This study supports the notion that women usually prefer to have their first birth shortly after their marriage (Tu 1991; NIPORT 2014). Though they usually do not have a preference of gender for their first child, they usually expect and prefer to have a son for the second birth or afterwards, especially if the first child is female. Findings reveal that there is a short span of time between having a first child and first marriage which is extreme in this flood affected area. It was also noted that most people living in Sharat Pur do not use contraception due to socio-cultural complications and low socio-economic status. As the study also revealed, both spouses have a say in reproductive decisions, while other family members such as parents-in-law or close relatives are influential in reproductive decisions which has been defined as family pressure in a study (Haque and Sayem 2009). Though gender preference at birth varies with male and female respondents, at least one more son than the number of daughters is expected. People in vulnerable areas consider continuing to have children even after their fourth or fifth child and they also have a gender preference at different births. Thus, it is suggested that higher birth order prevails in this flood affected village.

However, this study counted that there were 98 female respondents under this study, who gave birth to a total of 485 children, which suggests that there are almost 5 children per women. If we compare the TFR based on the BDHS survey data 2014, it appears that fertility per woman (approximately 5 children per woman along with the actual mean number of children 3.8 in this study) in this village is far above the TFR in national level (2.3) and Sylhet division (2.9) which is also the highest TFR compared with other divisions of Bangladesh. The study's results also confirm the presence of high fertility preference since the mean number of children was 3.8 in Sharat Pur. We can therefore argue the existence of a high fertility in vulnerable areas compared

with the national fertility rate of 2.2 in Bangladesh (NIPORT 2014). Several studies (e.g. Chowdhury and Harvey 1994; Cleland et al. 1994; Carr and Khan 2004; Bord et al. 1998) reveal that people prefer to have sons more in rural areas and see sons as future security during crises. People who live in rural areas vulnerable to extreme weather events face crises such as food scarcity, lack of accommodation, damage to their house, etc. It was expected that they may consider having sons as future security and that this belief may influence their fertility preference.

Moreover, there are 485 children at birth, where sex at birth is 51 % (249) male and 49% (236) female consecutively. In addition, from different studies, Hesketh and Xing (2006) noted different factors such as family size, parental age, parental occupation, birth order, coital rate, hormonal treatments, exposure to environmental toxins and stress, etc. influences the variation of the sex ratio at birth. In a study, Dama (2011) claimed that the sex ratio at birth may also vary based on the parental and environmental conditions. A study in Bangladesh by Razzaque et al. (2002) on the desire for children and abortion found that women who have a sagacious desire for children are less likely to have abortions. This study didn't find any case of abortion, particularly sex selective abortion.

Moreover this study was conducted on a village by including a small sample size and the sample selection was not truly randomly based. Since many male respondents usually go out for work and it was difficult to catch them during day time. As a result this study used convenience sampling and the selection of key respondents for in-depth interview was based on judgmental sampling procedure. Further selections were based on the level of understanding and the possibility of providing more insights on questions asked during the field survey. A comparative and broader level detailed study incorporating a large sample from areas vulnerable to different extreme weather events and areas not vulnerable to extreme events can provide more insights and meaningful findings. Therefore this study found that age at marriage, age at birth, gender preference and using contraception is low in vulnerable areas compared to national level data and information for Bangladesh. This study suggests implementing policy regarding family planning issues as well as early marriage. Most of the respondents under this study don't know about the use of contraception. Among those who know most of them couldn't use it to control their fertility. As a result, this research finds out that there are almost 5 children per woman. Moreover, most of the women are married at an early age, which influences the age at first birth. Thus this study insinuates taking steps to make people conscious about the prohibition of early

marriage as well as the benefits of family planning program. Additionally, this work recommends promoting mass educational facilities for the vulnerable people as this study found that most of the individuals in the sample had not benefited from any schooling.

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What Went Wrong with the Achievement of Replacement Fertility in Bangladesh and Its Consequences on the Demographic Dividend: The Role of Proximate Determinants?

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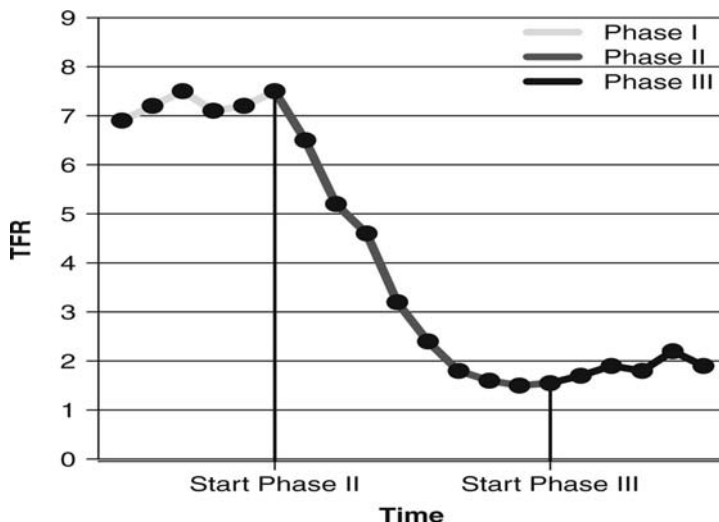
Abstract: According to 2010 World Population Prospects (WPP), Bangladesh is passing the second phase of fertility transition. The recent fertility level (TFR) of Bangladesh is 2.3 births per woman. The Bangladesh Demographic & Health Survey (BDHS)-2014 data showed that fertility is stalled again since BDHS-2011 unexpectedly. This stagnation raises questions about the prospect of reaching replacement fertility which was supposed to be achieved in Bangladesh by 2015 but failed again. This also has implications on the demographic window and consequently on the demographic dividend. Using the data of BDHS-2014 and applying the Bongaarts framework of the proximate determinants of fertility, this study attempts to identify the factors responsible for not achieving replacement fertility yet. The results demonstrate that contraception still dominates the fertility reduction in Bangladesh, followed by lactational infecundability, marriage and induced abortion. The change in the level of the proximate determinants and other key factors showed that fertility did not change much since BDHS-2011 which possibly caused this stagnation. The important factor which may have contributed to this is the high proportion of adolescent marriage in Bangladesh. This factor still creates a higher value of index of marriage which in turn affects fertility rates. Simulation on proportion married at adolescent age group suggests policy implications for achieving replacement fertility in Bangladesh can be achieved. In addition, the role of abortion and its measurement problem are also discussed

Keywords: Bangladesh, proximate determinants of fertility, nuptiality, fertility stagnation

1. Introduction

Bangladesh is among the most densely populated countries in the world. Throughout the past century, the population of Bangladesh has increased exponentially. Between 2001 and 2011, 2 million individuals increased population figures yearly. According to 2010 World Population Prospects (WPP), fertility transition of a country is modelled in three Phases and they are- (I) a high fertility, pre-transition phase (II) a fertility, transition phase and (III) a low fertility, post transition phase. These phases are based on level of Total Fertility Rate (TFR) of a country. The first phase is labelled as high fertility I; on the other hand, a sharp fall from TFR of 7.0 to below replacement level (TFR=2.1) is defined as fertility transition. Bangladesh is now in the third phase of demographic transition. Once a country had reached convergence level, it would stabilize and continue at this point for certain period (UN, Department of Economic & Social Affairs, Population Division, 2017). Thus, fertility level is one of the core components of population dynamics that determine the size, structure, and composition of the population in any country. Graphically, the fertility transition is described in WPP 2010 (Alkema et al. 2011), shown below (Figure1).

Figure 1. Different stages of fertility transition



Phase I: Fertility is high and the fertility transition has not yet started

Phase II: Fertility transition

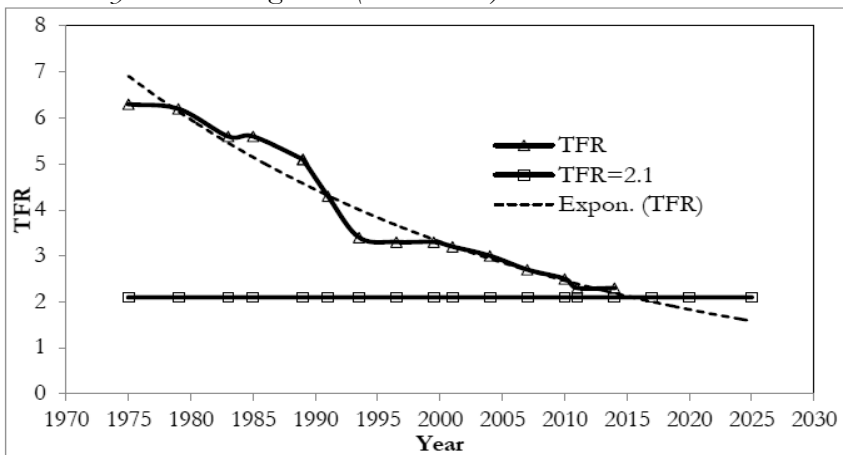
Phase III: Sub-replacement recovery

Source: Alkema et al. 2011: 819

Due to fall in fertility, a country typically enjoys demographic dividend, a span of time in which the relative number of older people rises and younger population decreases. The results are dramatic increase in the share of working population. The result is a dramatic increase in the share of the population and opens the scope of the demographic window and leads to a “demographic dividend”. It will turn into a demographic dividend only if the country invests heavily now in health, education, skills development, and employment generation, especially for the large number of youths.

The current total fertility rate (TFR) of Bangladesh is 2.3 births per woman which has stalled since last BDHS (BDHS-2014). Bangladesh aimed to achieve replacement TFR of 2.1 births per woman by 2015 through improved access to health and nutrition services for the poor and geographically marginalized population (BDHS-2011). The TFR declined from 6.3 births per woman in 1971-1975 to 5.1 births per woman in 1984-1988, followed by another rapid decline in the next decade of 1.8 births per woman to reach 3.3 births per woman in 1994-1996. TFR remained plateaued during the 1990s for about a decade, at around 3.3 births per woman. Since 2004 TFR has again begun to decline. The TFR declined further by one child per woman during the current decade to reach 2.3 births per woman in 2011 which continues till 2014. The trend of TFR from 1975 to 2014 is shown in the following graph (Figure 2).

Figure 2. Fertility trend in Bangladesh (1974-2014)



Note: The data are obtained from two World Fertility Surveys (BFS-1975&1989), five Contraceptive prevalence surveys (during 1989-1991), six BDHSs (during 1993-2011) and two Maternal Mortality surveys (BMMS-2001&2010).

For the 1975 and 1989 BFS surveys, the rates refer to the 5-year period preceding the survey; for the other surveys, the rates refer to the 3-year period preceding the survey. The BFS and BDHS surveys utilized full birth histories, while the 1991 CPS used an 8-year truncated birth history. Source: 1975 BFS (MOHPC 1978: 73); 1989 BFS (Huq and Cleland 1990: 103); 1991 CPS (Mitra et al. 1993:34); BDHS 2014 (NIPORT).

The fertility projections are done using exponential regression of TFR against time, as Exponential model fitted the data with maximum goodness of fit compared to other kinds of regression approach. The fitted model is,

$$\text{TFR} = 1\text{E}+26e^{-0.029 * \text{Year}} \text{ with } R^2 = 0.9567.$$

In Figure 2, the dashed green line represents the projected fertility level up to 2025, and red line presents the replacement level of fertility (TFR=2.1). The projection suggests that Bangladesh was supposed to achieve replacement level of fertility by 2015 if the trend continued. All subsequent governments that have come into power have identified population control as the top priority for government's population policy planning. This political commitment played a crucial role in the fertility decline in Bangladesh. Since 1980 the family planning program has emphasized the importance of integrating health and family planning services. The goal is to provide an essential integrated package of high quality, client-centered reproductive and child health care, family planning, communicable disease control, and curative services at a one-stop service point.

Many developing countries in Asia and Africa experienced the second phase of fertility transition without much socioeconomic development, on the other hand, countries at similar levels of economic development are often seen to show very different patterns of fertility pattern (Bongaarts and Watkins 1996). Past declines in the level of fertility across these countries were mostly attributed to a strong family planning program, in the absence of any remarkable change in socioeconomic status in a fundamentally traditional and impoverished society (Cleland et al. 1994). This statement is not consistent as many exceptions were held in 2000s. Also, the argument exists that change in other sectors of society and the economy might also play an important role on declining fertility (Caldwell et al. 1999). Few contradictory scenarios may be seen in Bangladesh, too. Though increase is observed in the level of using family planning method in the recent DHSs, still the relation between fertility level and contraceptive use prevalence are not well synchronized. The contraceptive prevalence rate (CPR) of 62 percent reflects a small rise from previous BDHS (BDHS-2014).

As the relationship between fertility and its determinants is very complex and studying the determinants of fertility at aggregate level is not an easy task, because human reproduction is an outcome of both biological and behavioural factors, along with cultural and socioeconomic factors (Bongaarts and Potter 1983). The principal characteristic of biological and behavioural factors is that they can influence fertility directly, while socioeconomic and environmental factors affect fertility through modification of one or more biological or behavioural factors (Bongaarts 1978). Using data from 41 developed and developing countries, Bongaarts and Potter (1983) further observed that 96 percent of the variance in the total fertility rates of these populations could be explained by four principal proximate determinants: specifically, marriage, contraception, locational infecundability, and induced abortion. Because of these findings, the analysis of the determinants of fertility becomes more simplified since contribution of each factor can be estimated and policy strategy can be considered accordingly.

As these proximate determinants are well recognized for explaining aggregate fertility level, many researches exist till now for Bangladesh along with other developing and developed countries (Rabbi 2015; Islam et al. 2011; Mahjabeen and Khan 2011; Erfani and McQuillan 2008; Kabir and Chowdhury 2004; Islam et al. 1998, Islam and Islam 1993; Kabir and Uddin 1987; Wang et al. 1987). Most of these studies are done to explain current fertility level of specific country or countries, though many of them estimated the required level of contraceptive prevalence rate to achieve replacement level of fertility (Mahjabeen and Khan 2011). However, these approaches overlooked policy options regarding other proximate determinants which have perceived influence on fertility decline. Furthermore, with an inconsistent relationship between aggregate fertility levels and contraceptive prevalence rate, further in-depth analysis on other proximate determinants is crucial for Bangladesh to ensure that Bangladesh is on right track to achieve the replacement level of fertility.

This unexpected stagnation near the replacement level of fertility draws attention to in-depth analysis to understand the phenomena of past decline as well as quality of birth history data. Since 2010, poverty declined considerably (BBS 2010) and per capita income along with females' enrolment at all level increased considerably. Female's participation in the labour market has also increased to a noteworthy degree in formal and informal sectors (BBS, 2010). Hence, to improve our understanding of the causes of fertility decline in Bangladesh, it is necessary to analyse how proximate determinants influence fertility. Keeping this in view, this paper investigates the levels and trends of

the proximate determinants along with their key fertility intention behaviours in Bangladesh. This study provides a critical review of the major proximate determinants of fertility, and estimates their fertility-inhibiting effects using the Bongaarts (1978) model. Based on the above argument, the main objective of this paper is to assess why fertility remained stagnant from 2011 to 2014 again in Bangladesh. We attempted to explore the reason behind this stagnation of fertility and as a result of which Bangladesh has failed to achieve replacement fertility in BDHS-2014. The purpose is also to identify which are the factors that policy makers should target for immediate intervention to reach the demographic goal. We also raise question regarding the possible effects of reducing adolescent marriages are reduced, and induced abortion data are used indirectly for determining future fertility change. The paper also investigates the implications on the demographic dividend.

2. Methodology

The data utilized for this research is a secondary data extracted from the Bangladesh Demographic and Health Survey conducted in 2014 under the authority of the National Institute for population Research and Training (NIPORT) of the Ministry of Health and Family Welfare and funded by USAID. The 2014 Bangladesh Demographic and Health Survey (BDHS) is a nationally representative sample survey designed to provide information on basic national indicators like fertility, childhood mortality, contraceptive knowledge and use, maternal and child health, nutritional status of mothers and children, and so on. BDHS-2014 contains 17,863 ever-married women of child bearing age of all the regions of Bangladesh.

To measure the fertility inhibiting effects of the four principal proximate determinants of fertility in a given population, the aggregate fertility model of Bongaarts (1978) and Bongaarts and Potter (1983) has been used in the current study. This model is an aggregate model and it assumes that the natural reproductive capacity, i.e. total fecundity rate (TF) of women is nearly the same for all women, but their actual reproductive performance is modified by four major proximate determinants. A population's actual level of fertility is measured by the total fertility rate (TFR), while in the absence of inhibiting effects of the proximate determinants, the fertility level of the population could reach a hypothetical maximum level, called total fecundity rate (TF). The observed level of fertility in a given population reflects the extent to which the proximate determinants reduce the TF. TF for Bangladesh is taken as 15.3 like the previous studies (Islam et al 1998, Islam and Islam 1993). The fertility-inhibiting effects of the four principal proximate determinants are proportion

married, contraception, induced abortion, and postpartum infecundability and they are measured in the model by four indices: C_m = index of marriage, C_c = index of contraception, C_a = index of induced abortion, and C_i = index of postpartum infecundability. The value of each index lies between 0 and 1; 0 signifying complete fertility inhibition and 1 meaning no fertility inhibition. Symbolically, the relationship between the actual level of fertility in a population, as measured by total fertility rate (TFR) and the biological maximum TF is,

$$TFR = C_m \times C_c \times C_a \times C_i \times TF \quad (1)$$

The complement of the value of an index is the proportionate reduction in fertility due to the inhibiting effect of that proximate variable.

2.1 Estimation of the model Indices

2.1.1. Estimation of Index of Marriage, C_m

The index of marriage is determined by the age-specific proportions of currently married among females. C_m is estimated as the weighted average of the age-specific proportions of females currently married $m(a)$, with weights provided by the age-specific marital fertility rates $g(a)$. Symbolically,

$$C_m = \frac{TFR}{TMFR} = \frac{\sum m(a) \times g(a)}{\sum g(a)} \quad (2)$$

2.1.2. Estimation of Index of Contraception, C_c

The effect of contraception on the risk of conception is measured by the index C_c . For current contraceptive prevalence rate u and average use effectiveness e , the value of the index is calculated as

$$C_c = 1 - 1.08 \times u \times e \quad (3)$$

Where, u is the current contraceptive prevalence rate (CPR) and e is the average use-effectiveness of contraception, which is calculated as the weighted average of the following method-specific use-effectiveness levels (Bongaarts 1982).

Contraception method u_m	Use-effectiveness* e_m
Pill	0.90
Condom	0.62
IUD & implants	0.95
Injection	0.99
Sterilization	1.00
Others	0.70

* Source: Bongaarts 1982

This implies, $u = \sum u_m$ and $e = \frac{\sum u_m \times e_m}{u}$

The value 1.08 is the adjustment factor for sterilizing, on an assumption that all the contraceptive users may not be fecund at the time of using contraceptives and a small proportion of sterile women may use contraceptive without knowing their fecundity (Bongaarts and Potter 1983).

2.1.3. Estimation of Index of lactational infecundability C_i

The index of postpartum infecundability C_i measures the effects of postpartum amenorrhoea and lactation (breastfeeding) on fertility. In the presence of breastfeeding and postpartum abstinence the average birth interval equals approximately 18.5 months plus the duration of postpartum infecundability (Bongaarts and Potter 1983). Thus, C_i is estimated as,

$$C_i = \frac{20}{18.5 + i} \quad (4)$$

Where, i is the average duration of post-partum infecundability. In current study, i is considered as median. For average (median) duration of breastfeeding B , i can be estimated from the following fitted model of Bongaarts and Potter (1983),

$$i = 1.753e^{0.1396 \times B - 0.001872B^2} ; \text{ Where, } R^2 = 0.96 \quad (5)$$

2.1.4. Estimation of index of abortion, C_a

Abortion is not well reported in Bangladesh, so the index of abortion does not provide good results. The index of abortion C_a is estimated as,

$$C_a = \frac{TFR}{TFR + 0.4 \times (1 + u) \times TA} \quad (6)$$

Where TA is the total abortion rate, estimated as the number of abortions in survey preceding three years divided by the number. of currently married women at that time. A termination of pregnancy after 8 weeks is considered as an abortion in current study (Johnston and Hill 1996).

2.1.5. Stover's Review: inclusion of Index of Sterility, C_p

This index is recommended later by Stover (1998) in his review of proximate determinants. This index is not suggested by the aggregate model of Bongaarts and Potter (1983), though the effect of sterility on fertility was discussed (Bongaarts and Potter 1983). The index of pathological sterility is intended to estimate the fertility-inhibiting effects of primary and secondary sterility. Since

data on sterility were scarce at the time, Bongaarts later developed an equation to estimate the index as a function of primary sterility (Bongaarts 1984). The index is:

$$C_p = \frac{7.63 - 0.11 \times s}{7.3} \quad (7)$$

Where, s is the percentage of women aged 45-49 who have had no live births. This index is equal to 1.0 when 3 percent of women are childless at age 45-49. Anything above this level is assumed to be the effect of pathological sterility. The reason is, about 3 percent couples are sterile from the beginning of the reproductive period and consequently remain childless (Bongaarts and Potter 1983, Conception 1981). For Bangladesh, this index is omitted from analysis, since only 1.4 percent of women aged 45-49 were childless at survey preceding three years of BDHS-2014.

2.2. Fertility-inhibiting effect

The difference between the total fecundity (TF, taken as 15.3) and the predicted or model-estimated TFR demonstrate the resultant inhibitory effect of each determinant while, the fertility controlling effect is prorated by the product of difference between TF and model TFR to the proportion of the logarithm of each index to the sum of the logarithms of all indices (Wang et al. 1987). For example, the fertility inhibiting effect of marriage can be expressed symbolically as,

$$[TF - TFR(estimated)] \times \frac{\log C_m}{\log C_m + \log C_c + \log C_i + \log C_a}$$

3. Results

3.1. Role of major proximate determinants in fertility decline

The summary measures required for the application of Bongaarts (1978) model and corresponding reproductive indicators for Bangladesh (BDHS-2014) are presented in the following table (Table 1). Multiplying all the indices together by the total fecundity rate of 15.3 produces the predicted TFR for the population. The predicted TFR typically differs from the observed TFR because of underreporting of births, measurement errors of the proximate determinants, or the omission of any other potential proximate determinants that are influential in determining fertility levels in that population under study (Islam et al. 2011).

Clearly, the lowest impact of marriage may be seen on recent fertility decline in Bangladesh; having a value of 0.888, C_m may reduce only 11 percent

of the fertility in Bangladesh. The impact of family planning on current fertility is still a dominant factor for Bangladesh, as 59 percent of the fertility decline is attributed to use of contraception. Besides contraception, the highest fertility decrease is occasioned by post-partum infecundability, which reduces almost 51 percent of fertility for that index. The lowest effect of abortion is seen in fertility level, around 1 percent of fertility is reduced by abortion.

Table 1. Reproductive indicators and derived indices of proximate determinants of fertility for Bangladesh (BDHS-2014)

A. General Reproductive Indicators	
TFR	2.3
TMFR	2.59
Median age at first marriage (25-49)	15.8 years
CPR (u)	62.4 percent
Contraceptive use effectiveness (e)	0.87
Median duration of breastfeeding	31 months
Median duration of postpartum infecundability	21.98 months
Total Abortion rate (ΓA)	0.043
B. Model indices	
C_m	0.888
C_c	0.41
C_a	0.988
C_i	0.494
Combined effect of four determinants ($C_m \times C_c \times C_a \times C_i$)	0.1777
Total fecundity (TF)	15.3
Predicted TFR	2.72

Table 2 exhibits the magnitude of the total inhibiting effect being accounted for by each proximate determinant at BDHS-2014. For Bangladesh, out of 12.58 (=15.3-2.72) births being inhibited, 1.01 births (or 8 percent) were due to the marriage variable, 6.33 births (or 50 percent) were due to contraception, 0.07 births (or 0.5 percent) were due to abortion and 5.16 births (or 41 percent of total inhibiting effects) were because of post-partum infecundability.

The trends of four indices are summarized in the following table (Table 3). The estimated indices for BDHS 1993-94, 1996-97, 1999-2000, 2004 and 2007 are taken from the previous research (Islam et al. 2002; Mahjabeen and Khan 2011; Rabbi 2015). The differences between original and predicted TFR

were high in earlier BDHSs, the lowest gap being observed for BDHS-2014. C_m is unusually high in Bangladesh; lowest fertility decline occurs by marriage over the time. On the other hand, values of C_c decreased sharply in all the BDHSs, which indicate the increasing trend of the use of family planning methods in Bangladesh. Generally the longer duration of breast feeding is also common in Bangladesh which is supported by C_i index.

Table 2. Magnitude of the total fertility-inhibiting effect being accounted for each proximate fertility determinants for Bangladesh (BDHS-2014)

Proximate determinants	Value of Index	Fertility-inhibiting effect	
		Reduction of births per woman	Percentage reduction
C_m	0.888	0.86	6.83
C_c	0.41	6.49	51.58
C_a	0.988	0.09	0.72
C_i	0.494	5.13	40.77
Total [TF-TFR(est)]	12.58	12.57	100.0

Table 3. Trends of proximate determinants of fertility in Bangladesh (1993-2014)

BDHS	TFR	C_m	C_c	C_i	C_a	Predicted TFR	TFR-TFR (est)
1993-94	3.4	0.878	0.575	0.660	1.0	5.10	1.70
1996-97	3.3	0.858	0.531	0.680	1.0	4.74	1.44
1999-2000	3.3	0.843	0.495	0.714	1.0	4.56	1.26
2004	3.0	0.743	0.454	0.813	0.963	4.04	1.04
2007	2.7	0.750	0.489	0.823	0.959	4.43	1.73
2011	2.3	0.871	0.42	0.493	0.991	2.73	0.43
2014	2.03	0.888	0.41	0.494	0.988	2.72	0.42

Note: Values of proximate determinants for first three BDHSs are taken from Islam et al (2002); BDHS-2004 and 2007 are taken from Mahjabeen and Khan (2011) and BDHS-2011 are taken from Rabbi (2015). For BDHS-2004 and 2007 an index of abortion is constructed using data on abortion from the Matlab study (ICDDR,B 1996), which is used as a proxy (Mahjabeen and Khan 2011).

To determine the reason of this stagnation in fertility level, we compared all the fertility indicators with that of BDHS-2011 as well. The summary measures of Bongaarts (1978) model and corresponding reproductive indicators for

Bangladesh during BDHS 2011 and BDHS 2014 are summarized in the following table (Table 4).

As evident from the various proximate determinants, the change in the level of the reproductive indicators did not occur much in the BDHS-2014 compared to the BDHS-2011 which may be the reason for not achieving replacement level of fertility. We explored each of these indicators with associated formal proximate determinants in the following sections, and by creating simulation we tried to show what should be prioritized in future

Table 4. Comparison of reproductive indicators and derived indices of proximate determinants of fertility for Bangladesh (BDHS 2014 and BDHS 2011)

General Reproductive Indicators	BDHS-2014	BDHS-2011
TFR	2.3	2.3
TMFR	2.59	2.64
Median age at first marriage (25-49)	15.8 years	15.5 years
CPR (μ)	62.4 percent	61.2 percent
Contraceptive use effectiveness (e)	0.87	0.88
Median duration of breastfeeding	31 months	31.2 months
Median duration of Post-partum infecundability	21.98 months	22.08 months
Total Abortion rate (TA)	0.043	0.028
B. Model indices		
C_m	0.888	0.871
C_c	0.41	0.42
C_a	0.988	0.991
C_i	0.494	0.493
Combined effect of four determinants ($C_m \times C_c \times C_a \times C_i$)	0.1777	0.1787
Total fecundity (TF)	15.3	15.3
Predicted TFR	2.72	2.73

3.2. Marriage

It has already been noted that impact of marriage on fertility decline is not significant which is due to the high prevalence of adolescent marriages. The estimated value of the index suggests that there is a little gap for younger ages and consequently the difference between TFR and TMFR (marital fertility rate) is also low. This high value of index of marriage occurs due to higher proportion of adolescents' marriage in Bangladesh. The age specific fertility rate (ASFR), age specific marital fertility rate (ASMFR) and the proportion

married for BDHS 2014 in all age groups are presented in the following table (Table 5).

Table 5. ASFR, ASMFR and proportion married for Bangladeshi women (BDHS-2014)

Age group	Proportion married*	ASFR	ASMFR	Median age at marriage**
15-19	0.442	113	0.442	-
20-24	0.830	143	0.830	17.2
25-29	0.920	110	0.920	16.4
30-34	0.946	57	0.946	16.0
35-39	0.923	24	0.923	15.6
40-44	0.890	4	0.890	15.3
45-49	0.855	5	0.855	15.3
Total	0.798	TFR = 2.3	TMFR = 2.59	15.5

Notes: *Bongaarts multiplier is applied. ASMFR for 15-19 is computed as $0.75 \times$ ASMFR for women 20-24 (Bongaarts and Potter 1983).

** The age at first marriage is defined as the age at which the respondent began living with her first spouse/partner. Median age at marriage for women aged 25-49 is 15.5 years. For women aged 20-49, the median age at marriage is 15.8 years. Median age at marriage is not applicable for age group 15-19 due to censoring.

Age at first marriage has a major effect on childbearing because the risk of pregnancy depends primarily on the age at which women first marry (Islam et al 1998). Women who marry early, on average, are more likely to have their first child at a young age and give births to more children overall, contributing to higher fertility (Islam and Islam 1993). For BDHS 2014, 80 percent of women aged 15-49 were married at the time of survey. Among them, about 44 percent of women aged 15-19 were married, which affects age specific marital fertility rate at adolescent ages. A few important indicators of marriage in Bangladesh are presented in the following Table (Table 6). Compared to early BDHSs, median age at first marriage increased slightly in Bangladesh in the last twenty years with highest value at BDHS 2014. The rate did not increase with a secular trend, as a decrease may be observed in 1996-97 and 2004. It should be noted that, the lowest median age at first marriage is observed in Bangladesh compared to the neighbouring South Asian countries during BDHS 2011.

Age specific fertility rates for women aged 15-19 have a sharp decline since BDHS-1996-97. After an increase in BDHS-1996-97, it falls steadily to at 113 at BDHS-2014. Despite this the contribution of adolescent age specific

fertility to the total fertility is about 25 percent. To achieve replacement level of fertility, adolescent marriage should get priority in the policy if we want to achieve our demographic objective.

Table 6. Trends of few marriage indicators of Bangladesh (BDHS-1993-94 to 2014)

BDHS	Proportion married (all)	Proportion Married (15-19)	ASFR (15-19)	Median age at first marriage (20-49)
1993-94	79.4	47.7	140	14.4
1996-97	77.6	48.3	147	14.2
1999-2000	76.2	46.6	144	15.0
2004	77.1	46.0	137	14.8
2007	78.0	45.6	126	15.3
2011	80.0	44.7	118	15.8
2014	79.8	44.2	113	15.8

3.3. Contraception

BDHS surveys defined current use of contraception as the proportion of currently married women who report that they are using a family planning method at the time of the survey (BDHS 2014). The contraceptive prevalence rate is high in Bangladesh (BDHS 2014). With 62.4 percent contraceptive prevalence rate (CPR), more than half of the currently married women aged 15-49 use a modern method of contraception (52 percent). Use effectiveness of 87 percentages is seen for contraceptives in the current study (Table 1), which is high enough for a developing country (Simmons 1985). Also the value of C_c is 0.41 along with reduction of 6.49 births per woman (Table 2).

Increasing the family planning method more effectively will reduced the fertility level of Bangladesh, as has also been suggested in previous studies (Islam et al. 1998). The trends of using modern family planning methods for the seven BDHSs are summarized in the following table (Table 7). CPR of 62 percent reflects a slight increase in FP utilization compared to previous BDHS. Between 1993 and 2011 the use of female sterilization among currently married women declined from 8.2 to 4.6 percent. At the same time, two methods gained popularity; the pill is being used by 27 percent of women (BDHS 2011), compared to 17 percent at 1993 and injectables (4.6 percent in 1993 to 11 percent in 2011).

Table 7. Trends of modern family planning methods in Bangladesh (1993-2014)

BDHS	Any modern method	Pill	IUD	Inject ions	Con- dom	Female sterilia- tion	Male steriliza- tion	Impl ants	CPR
1993-94	36.6	17.5	2.2	4.6	3	8.2	1.1	-	44.9
1996-97	42.1	21.1	1.8	6.3	3.9	7.7	1.1	0.1	49.8
1999-00	44	23.3	1.3	7.3	4.3	6.8	0.5	0.5	54.3
2004	47.6	26.4	0.6	9.8	4.2	5.3	0.6	0.8	58.5
2007	47.5	28.5	0.9	7	4.5	5	0.7	0.7	55.8
2011	52.1	27.2	0.7	11.2	5.5	5	1.2	1.1	61.2
2014	54.1	27.0	0.6	12.4	6.4	4.6	1.2	1.7	62.4

3.4. Lactational infecundability

5.13 births were being inhibited (or almost 41 percent of total inhibiting effects) due to the effect of post-partum infecundability (Table 2). Information on breastfeeding in the BDHS 2014 was collected on all children born during the last three years preceding the survey date. This data includes children living and deceased at the time of the survey. The median duration of any breastfeeding among Bangladeshi children in BDHS-2014 is 31 months which consequently implies almost 22 months of median duration at post-partum infecundability. The median duration of exclusive breastfeeding is estimated at 2.8 months in BDHS 2014. The median duration of exclusive breastfeeding has decreased since 2011 (BDHS 2014). Generally longer breastfeeding is common in Bangladesh. The median duration of breastfeeding in Bangladesh was extraordinarily long during BDHS-1993-94. It was so long, in fact, that it was not possible to be calculated exactly from BDHS 1993-94 data. This is because breastfeeding status was asked only for children age 35 months or less and 60 percent of the children ages 34-35 months were still being breastfed.

3.5. Induced abortion

Abortion is illegal and strictly prohibited by law in Bangladesh, unless otherwise recommended by registered doctors (Islam et al. 1998). Fertility reduced by abortion is very low Bangladesh (approximately 0.1 percent), possibly due to misreported abortion rates. In earlier research, the index of abortion is assumed to be 1.0 due to the very low number of reported abortions, though several studies on abortion suggest that it is not rare in Bangladesh (ICDDR,B 1996). The gap between observed and predicted TFR may also arise due to abortion, as further analysis on abortion rates may conclude more precisely (Johnston and Hill 1996). In most cases, abortion is done under the name of menstrual regulation, a procedure which is approved

by the government's health and family planning program (Islam et al. 1998). Distribution of terminated pregnancies during the last three years preceding BDHS 2014 is summarized in the following table (Table 8).

Table 8. Distribution of terminated pregnancies (both MR and Abortions) in Bangladesh (BDHS 2011)

Month pregnancy terminated	No. of observations	Percentage
1	53	6.1
2	86	10.0
3	75	8.7
4	63	7.2
5	64	7.4
6	88	10.1
7	76	8.8
8	74	8.6
9	287	33.1
Total	866	100.0

During BDHS 2014, a total of 866 terminated pregnancies occurred during three years preceding survey date. Among them 727 terminations (84 percent) occurred after 8 weeks of conception, which gave a total abortion rate of 0.043. C_a is 0.988, which means approximately 1 percent fertility may be reduced by induced abortions. Indirect techniques are suggested in many studies to estimate abortion rate for countries where abortions are misreported; i.e. to estimate C_a from the values of other proximate determinants of fertility (Johnston and Hill 1996). If we consider C_a is 0.95 then reduction of fertility contributed by the induced abortion will be higher than the current estimate suggests. Due to social, cultural and religious stigma, induced abortion is heavily underestimated.

3.6. Role of proximate determinants to achieve replacement level fertility

The sudden stagnation at 2.3 births in BDHS 2014 is supposed to be unexpected as the fertility was falling exponentially during the previous surveys (Figure 2). From the findings of the current study, it is clear that, to achieve replacement level of fertility, further decline is required for proximate determinants. The required level of index of contraception and lactational infecundability are estimated in the following sections along with simulation for marriage. We are not considering the induced abortion because the

abortion is severely misreported in BDHSs data, which seriously affect the abortion rates used in Bongaarts framework

3.7. Contraception

For reaching replacement level of fertility without any change in other proximate determinants rather than family planning, the required level of contraceptive prevalence rate (CPR) is obtained using equation (3). Suppose that TFR_1 and TFR_2 be the observed total fertility rate and 2.1 (TFR for replacement level fertility) respectively and let the corresponding levels of contraceptive prevalence and use-effectiveness be u_1 and e_1 , and u_2 and e_2 respectively. If we assume that the indices for all other proximate determinants except for contraception remain constant, i.e., $C_{m1} = C_{m2}$, $C_{a1} = C_{a2}$, $C_{i1} = C_{i2}$, $TF_1 = TF_2$ then obviously

$$\frac{TFR_2}{TFR_1} = \frac{C_{c2}}{C_{c1}} = \frac{1 - 1.08 \times u_2 \times e_2}{1 - 1.08 \times u_1 \times e_1}$$

$$\text{Thus, } u_2 = \frac{1}{(1.08 \times e_2)} \times \left[1 - \frac{TFR_2}{TFR_1} \times C_{c1} \right]$$

For BDHS 2014, C_c was 0.41 and TFR was 2.3. Assuming use-effectiveness is unchanged ($e_1 = e_2 = 0.873$), we have u_2 as 0.6636. Therefore, 66.36 percent CPR is required to achieve replacement level of fertility.

3.8. Lactational infecundability

The required duration of post-partum infecundability may be estimated using equation (4). Continuing with symbols of contraception and assuming that the indices for all other proximate determinants except for breastfeeding remain constant, i.e., $C_{m1} = C_{m2}$, $C_{a1} = C_{a2}$, $C_{c1} = C_{c2}$, $TF_1 = TF_2$ then obviously

$$\frac{TFR_2}{TFR_1} = \frac{C_{i2}}{C_{i1}} = \frac{\frac{20}{18.5 + i_2}}{\frac{20}{18.5 + i_1}}$$

Here, i_1 and i_2 are corresponding duration of post-partum infecundability for TFR_1 and TFR_2 . Then the required duration of post-partum infecundability to achieve replacement level of fertility will be,

$$i_2 = \left[\frac{20}{\frac{TFR_2}{TFR_1} \times C_{i1}} \right] - 18.5$$

For BDHS-2014, estimated C_{i1} was 0.494, which implies that a median duration of post-partum infecundability of 25.84 months is required to achieve replacement level of fertility.

3.9. Marriage

It was already stated that, among all the indices, reduction in fertility contributed to by the proportion of married is at a minimum, which is due to the high prevalence of adolescent marriage in Bangladesh. In Bangladesh still one fifth of the total fertility is attributed to the adolescents despite the fact legal age at marriage is 18 years. Unlike previous two indicators, the required level of marriage can't be determined from estimated C_m . It will also not imply anything for the policy-makers. A simulation is performed to assess what would be necessary to reach the desired goal of replacement fertility, and the following Table shows that if the proportion of married individuals aged 15 to 19 is brought down from the current 44% to 36% Bangladesh can easily achieve replacement level of fertility.

Suppose with 0.442 proportion married at age group 15-19, we have ASMFR of 129 while ASFR was 113 for age 15-19. Here ASMFR was estimated using Bongaarts multiplier on ASMFR of the next age group (Bongaarts and Potter 1983). Due to the short average of marital duration, the marital fertility rates for women aged 15-19 years, therefore, do not represent the potential fertility of the whole age group. In this case Bongaarts recommends that the marital fertility rate for women aged 15-19 be taken as 0.75 of the rate for women aged 20-24 (Bongaarts and Potter 1983). In this simulation, Bongaarts multiplier is omitted to check the basic contribution of adolescents on fertility. Instead of Bongaarts multiplier, the adjusted ASMFR, TMFR, C_m and model TFR are 255, 3.25, 0.714 and 2.18 respectfully. The results of the simulated ASMFR, TMFR, C_m and model TFR for various level of proportion married at age 15-19 are summarized in the following table (Table 9).

The simulation shows that the aggregate fertility level will decline along with the decrease in the level of adolescent marriages. The fall in ASMFR, TMFR, C_m and model TFR almost followed a linear trend with the fall in

proportion of individuals married at age 15-19. These findings may help the policy makers to take decisions regarding shifts in the age at marriage of women precisely. A decline in the proportion married from 0.45 to 0.40 will help Bangladesh to achieve replacement level of fertility, while a decline to 0.3 will help Bangladesh to gain third phase of fertility transition (WPP 2010). On the other hand, if we consider the abortion index from 0.99 to 0.95, then replacement fertility would have been much earlier than expected.

Table 9. Simulation for proportion married at age 15-19 and its impact on fertility of Bangladesh (BDHS 2014)

Proportion married at 15-19	ASMFR	TMFR	C_m	Model TFR
0.44	255	3.22	0.714	2.18
0.43	263	3.26	0.706	2.16
0.42	269	3.29	0.699	2.14
0.41	276	3.32	0.692	2.12
0.40	283	3.35	0.685	2.09
0.39	290	3.39	0.678	2.07
0.38	297	3.43	0.670	2.05
0.37	305	3.47	0.662	2.03
0.36	314	3.51	0.654	2.00
0.35	323	3.56	0.646	1.98
0.34	332	3.61	0.637	1.95
0.33	342	3.66	0.629	1.93
0.32	353	3.71	0.619	1.89
0.31	364	3.77	0.610	1.86
0.30	376	3.82	0.601	1.84

4. Discussion and conclusion

The purpose of this paper is to assess the current fertility level through use of proximate determinants, but the analysis of proximate determinants shows a discouraging level of TFR. This is puzzling in view of the fact that during the last decade Bangladesh has made significant progress in all the MDGs indicators with the exception of TFR. Even poverty level has declined from 30.5% to 24.7% present in 2015. Per capita income also increased. Female enrolment in educational institutions from primary to tertiary level also increased significantly. At secondary and higher secondary level, there is a gender equity. At the tertiary level about 40% of the enrolled students are

female students. There are about 90 universities in the private sector while in government sector the number of universities is 37. About 40% of the female labour force is in the labour market. Per capita income along with infant, under five and maternal mortality also declined significantly. Despite all these positive factors, TFR in Bangladesh has stalled again. A close analysis shows that the proportion of individuals married at adolescent ages and abortion are the two noisy factors, which may be responsible for this.

The application of the Bongaarts model (1978) suggests that most of the fertility declines in recent era are attributable to family planning and lactational infecundability. The present analysis suggests that though the fertility transition of Bangladesh sharply declined up to period 1993-94, thereafter TFR did not change as much as expected trends had forecast. Prior to 2007 contraception played its role adequately as major fertility inhibiting factor. According to our analysis lactational infecundity has been placed in the second highest fertility inhibiting factor. The fertility-inhibiting effect of postpartum infecundability as found in Bangladesh is similar to the pattern found in most traditional societies (Erfani and McQuillan 2008). Lengthy breastfeeding is common in Bangladesh along with presence of exclusive breastfeeding. Both culture and the current health policy in Bangladesh favour universal and prolonged lactation, which improve both the health condition of children and the widening of birth intervals (Islam et al 2011). Modernization and increased use of contraception might be related to the declining trends in breastfeeding and post-partum amenorrhea; previous studies (Salway et.al. 1993) identified increased use of contraception as the most important determinant for the declining trend in post-partum amenorrhea.

Due to legal and social constraints, national level data on induced abortion are not available and its effects remain almost unknown. Nevertheless, verification from hospital and clinic records and other sources suggests that induced abortion is not rare, even though it is done under the name of menstrual regulation in Bangladesh (Islam et al 1998).

However, the impact of nuptiality patterns on the aggregate fertility level is not the expected one. While a slight increase has been observed in age at first marriage during the last two decades, the proportion married at age 15-19 is still alarming. There has been little decline in the proportion of individuals married at age 15-19. Child marriage is still prevalent. The BDHSs show about two thirds got married before reaching the age of 16 years (which is the legal age at marriage). Another important finding of the study is the change in age-specific fertility patterns, which indicate that childbearing is taking place at an earlier age that had been found in previous studies. As the desired level of

fertility is declining and there is little change in age at marriage, it appears that couples tend to reach their desired number of children in quick succession immediately after marriage and then regulate fertility at older ages with little effect on the replacement fertility. Compared to neighbouring South Asian countries, the proportion of married individuals, ASFR, ASMFR are highest in Bangladesh for age group 15-19.

The simulation of proportion of married individuals in the adolescent age group suggests new policy implications to achieve replacement fertility. The prevailing cultural and social norms in Bangladesh are unlikely to permit a change in the proportion of non-married individuals beyond a certain limit and the prospect for an immediate rise in the age at marriage for females does not seem to be very optimistic (Islam et al 1998). At the same it also raises questions regarding the effects of the change in socio-economic conditions such as females' enrolment in education, entry into the labour market, increased per capita income and high, gender equity in higher secondary education and about 40% enrolment of females in tertiary education, which should have produced gradual changes in reproductive behaviour. The fact that these effects were not visible is puzzling. Was this an artefact of data produced by the BDHSs? It is therefore warranted to ask what went wrong with Bangladesh, how the problem should be tackled, and what might happen next? The demographic projection suggests that if Bangladesh would have achieved replacement fertility in 2015 it would have a 25 years window of demographic dividend. If replacement fertility is achieved later, then the window would be of 20 years. The duration of the demographic dividend depends on when we achieve replacement fertility, and a shorter window is depriving the country from the benefit of replacement fertility.

This study has shed further investigation on the fertility transition in Bangladesh. Nevertheless, the extent to which Bangladeshi women are making their own decisions, the mechanisms of decision making among the couples, the institutional framework by which the government implemented its policies, and the question of achieving replacement fertility in Bangladesh and benefit of demographic dividend are among the questions remain to be explored and policy prescriptions should be followed accordingly in the coming years.

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***In Memoriam* Bruce Fetter (1938–2017). Historian of Africa and Demographer Engaged in Human Agency in Mortality Reduction**

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Professor Bruce Fetter, Honorary President of the *International Commission for Historical Demography* (ICHHD/CIDH) and Emeritus Professor of History, University of Wisconsin–Milwaukee (UWM), USA, passed away in April 2017. He was a well-known historian of colonial Africa and historical demographer. Born on June 8, 1938, in Ashland, Kentucky, he went to Harvard University in 1960, got his MPhil at Oxford University (UK) in 1962 and earned a PhD in African history from the University of Wisconsin–Madison in 1968. He won a Fulbright research grant in 1972–1973 to study the colonial city of Elisabethville, Belgian Congo (Lubumbashi) (Fetter 1973; 1976) and obtained another main fellowship in 1986. He taught African history and colonial rules at UWM from 1967 until his retirement in 2009. He gave also a course on the use of maps as historical sources and how to handle primary sources for population studies (Fetter 1979, 1983 and 1987). From 1975 to 1985, he was editor of the social science journal *Urbanism Past and Present*.

In 1990, Fetter edited an important volume, dedicated to Rita Headrick, historical demographer of French Equatorial Africa who had studied the impact of colonialism on health, particularly the case of malaria (Headrick 1990). The book, entitled *Demography from Scanty Evidence: Central Africa in the Colonial Era*, was conceived as a manual or handbook for reconstructing the demographic past of Central Africa (Fetter 1990a). Following the editor's introduction (Fetter 1990b), the publication presented sources, methods and case studies. It was extremely well received by the international community of Africanists (Newman 1991; Coquery-Vidrovitch 1993; Cordell 1996; Cordell, Omoluabi and Stiegler 2016) and considered very useful for the classroom, both sides of the Atlantic and still is. It brought path breaking views about demographic change in pre-1960 Africa and interaction between demography and colonization, beginning with critical interpretations of census data.

After the tragic early death of his daughter Leah Fetter who was a former student in UWM in French (1970-1992), Bruce Fetter established two scholarships in her memory, to be awarded annually to a student in order to participate in one of UWM study-abroad or exchange programs in French-speaking countries. Soon, he also developed large interests toward issues of public health and mortality questions, medical and insurance policies. As a perfect francophone, he was already for long a member of the French *Société de Démographie Historique* (SDH). In 1985, he was in Paris for a major conference on African historical demography, co-sponsored by the *Centre de recherches africaines* (EHESS) and the SDH. His paper was published in a special issue *Démographie historique, Cahiers d'Études africaines* (Fetter 1987). He proposed to “correct” or adjust some African historical data using the Coale and Demeny model life tables developed for contemporary demography (Fetter 1987; Coale, Demeny and Vaughan 1983). Besides research trips in Central Africa, he participated in many conferences overseas – travelling, later in life, with his talented partner, Anna Verena Fjermestad (1924-2015), originally trained as a social worker, expert in development –. Fetter contributed to Robert McCaa’s session on the “Big Killers: Epidemics, Famine, and War in Historical Perspective” during the 18th *International Congress of Historical Sciences* held in Montréal, Canada, August 1995, as part of the *International Commission of Historical Demography* (ICHD/CIDH) academic program (Fetter and Kessler 1996; Fetter 1997/1998). Participants had “to focus on the interrelations between mortality crises, on the one hand, and culture, society, economy, and politics, on the other” (McCaa 1996: 553).

Professors Marcus Filippello and Amanda I. Seligman, colleagues from University of Wisconsin–Milwaukee, confirmed that Bruce Fetter had been chair of the UWM’s history department, from 1995 to 1998 (Filippello and Seligman 2017), among other responsibilities besides teaching and research activities. Since 1967, Bruce Fetter was a member of the *American Historical Association* (AHA). He contributed also regularly to interdisciplinary sessions at *Social Science History Association* (SSHA), Family/Demography network, as paper giver, chair or discussant (Fetter 2010a). He organized conferences at UWM, and various meetings abroad, including an international “Mortality Forum” in 1999 that was partly published as a special issue of *Annales de Démographie Historique. Lutter contre la mort: le rôle des politiques publiques* [Fighting death: the role of public policies] (Fetter 2001). This forum on historical mortality took place in Oslo, June 1999 in partnership with Sølvi Sogner, Ståle Dyrvik, the *Norske demografiske forening* (Norwegian Demographic Society) and the *Norwegian Academy of Science and Letters*. According to Fetter’s words, the

discussion “produced a general consensus that not all of historical demography could be explained through quantitative indicators, but the breadth of the enterprise precluded more specific conclusions. Instead, forum members enjoyed the luxury of exploring broad areas beyond the usual purview of professional meetings.” (Fetter 2001: 6).

This 1999 Norwegian event was originally a preparatory conference to larger debates that were to take place the following year, during the Millennium Congress, 19th *International Congress of Historical Sciences* held also in Oslo, August 6-13, 2000. The *International Commission for Historical Demography* (ICHD/CIDH), was, as usual, one of the main partners of the *International Committee of Historical Sciences* (CISH/ICHS), organizer of the quinquennial World Congress of History. An impressive spectrum of scholars from all over the world was mobilized for this large event in Norway. Bruce Fetter was elected vice President of the ICHD/CIDH.

The following 20th *International Congress of Historical Sciences* took place in Australia. In Sydney, 3-9 July 2005. Bruce Fetter was active in several panels, particularly in the session on statistical data (“Reconstructing data into other formats or levels of analysis”, organized by Professor Kees Mandemakers, The Netherlands) and the one on “Virgin Soil Epidemics”. On Friday July 8, 2005, the General Assembly of the *International Commission for Historical Demography* (ICHD/CIDH) in Sydney, unanimously, elected Professor Bruce Fetter as President for a five year mandate (2005-2010), succeeding to the out-going President Prof. Robert McCaa, Minnesota Population Center, USA. Fetter remained very active and a frequent traveler. For the 21st *International Congress of Historical Sciences* in Amsterdam, when just retired, among other contributions (Fetter 2010b), Fetter organized a session entitled: “What general historians can learn from historical demography?” (26 August, 2010), and he was also a discussant for an impressive panel of European scholars – including Professor Ioan Bolovan & Sorina Paula Bolovan, Babeş-Bolyai University, Cluj-Napoca, Romania on “Transylvania's Population From 11th Century to 20th Century: Intercultural Opportunities and Vulnerabilities” – invited by Peter Boomgaard (University of Leiden, The Netherlands) on “Conquest and Demography” (24 August, 2010), University of Amsterdam. It should be also noted that Bruce Fetter was a pioneer in academic digital global networks, as he was an early supporter of H-Net, contributing regularly to H-Africa, H-SAfrica (Fetter 2006) and to H-Demog: papers of the 1999 “Mortality Forum” were made accessible on line there, in open access, thanks to a technological revolution and to the spreading of internet connections.

Beginning in 1996, the *European Social Science History Conferences* (ESSHC), taking place in spring every two years, benefited from Professor Fetter's regular active presence and expertise. For example, in Glasgow University, 9th ESSHC, 11-14 April, 2012, he was active in three sessions. During the following 10th ESSHC Vienna, he was a discussant as part of a Family/Demography roundtable on "Longitudinal databases and life science: new challenges and novel perspectives" (24 April 2014). Bruce Fetter's last academic contribution to a *Social Science History Association* (SSHA) panel was in Baltimore, November 14, 2015. He presented a fascinating pilot study relying on his own family genealogy as a case study, entitled: "Reconciling the incommensurate: Genealogy and genetics in the determination of heredity" (Fetter 2015). This was a specific approach of the connection between internal and international migration policies and the spatial mobility of Jewish families in northeastern Europe, 1569-1914.

Professor Bruce Fetter was an international scholar of global repute. He was a first class *Africanist* and a generous historical demographer devoted to Human Initiative in Mortality Reduction¹.

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BOOK REVIEW

Dossier Statistico Immigrazione [Statistical Dossier of Immigration] (2016). Rome: IDOS Centre for Study and Research. Coordinators: Maria Pia Borsci, Raniero Cramerotti, Ginevra Demaio, Luca Di Sciullo, Adriano Gizzi, Maria Paola Nanni, Claudio Paravati, Franco Pittau, Antonio Ricci, 479 pages.

Dossier Statistico Immigrazione 2016 – the Statistical Dossier of Immigration is an instrument for measuring and evaluating the migratory phenomenon oriented towards Italy. It is published yearly and is a fundamental work due to the information published and the analyses that it puts forward. It was initiated by the foundation Caritas diocesana di Roma, in 1991. From 2004 until 2012 this publication was also supported by Caritas Italiana and the Migrantes Foundation. From its start 26 years ago, this publication's objective was to supplement the few data about migration that the public institutions and structures had collected and also to gather, interpret and spread as much information as possible concerning foreign immigration in Italy. Starting with 2013 the *Dossier* is published by the IDOS Centre for Study and Research and The Italian National Bureau against Racial Discrimination. We must mention from the start that this is a publication perfectly adapted to our time period, a time when men leaving their birthplace mostly because of political or economic factors has become a global phenomenon. A country of emigration in the 19th-20th centuries, Italy has become in the last 3 decades a country for immigration, the goal for systematic migratory fluxes from Eastern Europe or the African continent. Among those who have settled in Italy in search of a better life we encounter also Romanians. According to official information there are over 1,3 million Romanians – the largest diaspora in the peninsula. Thus, when considering that Italy becomes with each passing year a country with an increased multicultural character, the existence of an instrument designed to analyse through statistical data the quantitative aspect of this phenomenon and to explain its causes, consequences and impact, was a necessity.

The 2016 edition of this veritable annual of immigration in Italy contains an introductory chapter where it is mentioned, among other facts, that the foreigners coming to this country represent a problem that has to be handled adequately while being at the same time a resource that must be treated as such and used. The book further contains 6 parts (sections), each divided in 6 relative short, but well-documented and full of information, chapters (up to 10 pages). Each of the 6 sections of the book begin with a smaller chapter entitled “editorial”. This “editorial” gives a broad overview of the subject being discussed. The first section of the book deals with the European and international context: here we read about the global and European scenario concerning immigration, a very interesting chapter about the fear Europeans feel when faced with immigration, the topic of islamophobia in Europe, the issue of discrimination, the impact of immigration on continental trade, trends and motivations of the migration of Syrian refugees but also the emigration of Italians to foreign countries, a topic of the greatest interest. The “editorial” from the second part of the book, entitled suggestively *The Illusion of the fortress Europe*, discusses the consequences of the old continent closing its gates against migration. Out of the many chapters part of this section of the book our attention is drawn to the one presenting as a demographic balance the foreign population residing in Italy, along with others dealing with the feminine aspect of immigration, the policies regarding the access of foreigners in Italy and visas given to non-EU citizens, the systems for receiving refugees and those requesting asylum, the problem of underaged foreigners who reach Italy unaccompanied by adults. The texts from the end of the second section are also worthy of attention: they discuss the contradictions of irregular immigration, respectively the expired visiting permits not renews in between 2011-2015 and repatriation, both the voluntary one and the one assisted through policies specific for immigrants.

The third section of the book is entitled *Integration and equal chances*. The introductory article (editorial) of this section suggests that an approach focused on integrating the new arrivals while taking into account the dynamic of the changes is needed. We can read in the next chapters about racism, intolerance and discrimination in Italy and Europe, criminal charges and the issue on imprisoning the immigrants, about the ever-increasing multi-religious picture of Europe and Italy and the problems brought forwards by this, about inter-religious dialogue, about regional laws in relation with religious freedom: the case of religious buildings. Other chapters of great interest focus on the education of foreign students in schools and universities, generations of children born in Europe but descending from immigrants, mixed marriages,

the immigrants and the topic of housing, the access of immigrants to citizenship and the possibility of integrating them in the societies where they have arrived, the challenge posed by the people of Roma ethnicity. The section ends with chapters dedicated to other present-day aspects related to immigration in Italy and other European countries: health, immigration viewed in mass-media between fears and uncertainty, the topic of delinquency.

The fourth section of the book focuses on the relation between immigrants and the Italian economic life. The introduction discusses the immigrants as part of the workforce and the Italian banking system. Subjects like: immigrants between access to jobs and unemployment in 2015, foreign workers in Italy, the problem of pensions for immigrants, the evolution of the foreign employees working in the Italian agriculture are debated in the next chapters in the same manner in which the statistical aspect of migration is complemented by thorough, well-documented analyses. This section of the *Dossier* also discussed the domestic work that immigrants do, the private economic initiative and the companies established by foreigners in Italy, the representation of immigrants in the unions, work related injuries, the relation between immigrants and the Italian employers, the economic and fiscal impact of immigration.

Part five delves deeply in the statistics of immigration in Italy. The section focuses in turn on the regions of the Peninsula, organised in chapters based on the geographic location: North-West, North-East, Centre, South and Islands. The chapters rely mostly on information offered by ISTAT (The Italian National Institute for Statistics). The content of the chapters represents a radiography of the problems posed locally by immigrants arriving in Italy. We are impressed by the dimension of the documentation and the wealth of statistical data on which the recreation of the studies phenomenon is based. Finally, part six of the volume contains tables with statistic information organised on regions as well as on the whole of Italy offering at the end of the book a synthetic view of the whole topic.

Going back to what we initially stated it is obvious that the Statistic Dossier of Immigration is a very useful and necessary working instrument for the Italian public institutions that deal with immigration and need studies, sometimes urgently, in order to properly deal with the phenomenon, and for the research institutes analysing the recent and immediate reality of this country whose role is to offer precise data for the deciding factors and to explain the causes, impact and consequences of such a complex topic. It is worth noting that as the migration towards Italy in the last 30 years has increased in number and consistency, a volume designed to register and explain

this aspect characteristic of globalisation was created: the migration of the workforce towards economic markets that offer better perspectives of gain and standard of living. Equally, we must note the size of this work of investigation that supports the yearly publication of this book, the great number of sociologists, statisticians, specialists in demography who compile and analyse this information from the ever-changing European and Italian realities. We want to point out that we encounter among the specialists dealing with the topic and publishing the book, Franco Pittau and Antonio Ricci who have also dealt with the specific topic of the presence of Romanians in Italy. They have dedicated several publications to this topic and we want to mention two titles: *Romania. Immigrazione e lavoro in Italia. Statistiche, problemi e prospettive*, Idos Publishing House, Rome, 2008 (coordinators: Alessandro Silj, Franco Pittau, Antonio Ricci); *I romeni in Italia tra rifiuto e accoglienza/Românii din Italia între respingere și acceptare*, Idos Publishing House, Sinnos Publishing House, Rome, 2010 (coordinators: Franco Pittau, Antonio Ricci and Laura Ildiko Timșă).

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The *Romanian Journal of Population Studies* is published twice yearly by the Centre for Population Studies. The journal is included in the EBSCO, ProQuest, ERIH PLUS and C.E.E.O.L databases.

The purpose of the *Romanian Journal of Population Studies* is to disseminate historical and contemporary demographic research with a focus on Romania and Central and Southeast Europe, to all scholars from around the world who have an interest in this field, and to provide a publication platform for relevant studies in this field. Both descriptive studies and research papers in the field of demography are welcome.

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Information for authors

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