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Maternal health and infant mortality in rural Transylvania. A case study of Vlăhiţa and Căpâlniţa, 1850–1939

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Abstract: The present study examines the relationship between maternal health and survival chances of infants in two transylvanian mountain villages called Szentegyházasfalva and Kápolnásfalva (in Romanian: Vlăhiţa and Căpâlniţa) in the period between 1850 and 1939. The investigation is based on the multivariate analysis of individual level and longitudinal data reconstructed from parish registers. As indicators of maternal health status we used the informations about the mother's age at childbirth, the length of previous birth intervals and the proportion of older siblings who died in infancy. Neonatal and postneonatal periods were analysed separately. According to the results, survival chances of the newborn strongly depended on the mother's health status. With the increase of the length of previous birth interval the survival chances of infants improve significantly. A serious risk factor of neonatal survival was the proportion of the mother's previously born children who died in infancy. Furthermore, the phenomenon of infant death clustering has also been confirmed. The death clusters predominated around the time of childbirth and in the neonatal period which shows the endogenous nature of the underlying factors. This evidence makes it plausible that maternal health played a role.

Keywords: infant mortality, maternal depletion, Transylvania, death clustering

1. Introduction

The present study examines the relationship between mothers' health and survival chances of infants in two transylvanian mountain villages called Szentegyházasfalva and Kápolnásfalva (in Romanian: Vlăhiţa and Căpâlniţa) in the period between 1850 and 1939. The investigation is based on the multivariate analysis of individual level and longitudinal data reconstructed from parish registers. To our knowledge this is the first analysis in Transylvania which examine the question using individual level and longitudinal data in a multivariate framework.

The research history of the examined scope dates back to classical family reconstitution studies. According to a short summary made by Michel Oris, Muriel Neven and George Alter in 2004, the issues of fertility and infant and child mortality have been closely interlinked in historic demographic research since the spread of the family reconstitution method (Oris, Neven & Alter 2004: 153–154). French historical demographers noticed the fact that the death of a previously born infant generally reduces the time interval until the birth of the next child ("replacement effect"). Later family reconstitution studies in Germany emphasized the importance of breastfeeding patterns as those determining time intervals between births and also indirectly neonatal and maternal mortality. As explained by Arthur E. Imhof (1984) and John Knodel (1988) the early weaning, on the one hand, intensifies exposure to infections and increases infant mortality.

On the other hand, fertility as well as maternal mortality rates also rise as with the weaning, breastfeeding no longer provides a contraceptive effect, a new pregnancy takes place faster and time intervals between births become shorter. The validity of the explanation is also supported by the researcher's observation which posits that excess female mortality in historical populations is limited to the childbearing ages. The investigation also made it obvious that the amount of maternal mortality resulting directly from childbirth do not give an account for the difference between the mortality of married men and married women (Alter, Manfredini & Nystedt 2004). According to Roger Schofield's estimations maternal mortality rate in Early Modern England were around 10 per 1000 births, which meant a relatively low, 6–7% death risk between marriage and the end of reproductive life (Schofield 1986: 259–260). However, repeated childbearing could have contributed to a rise in maternal mortality in another way. In poor societies pregnancy and breastfeeding demanded further efforts of the otherwise poorly fed mothers and they could have become more exposed to infectious diseases due to their physical exhaustion.

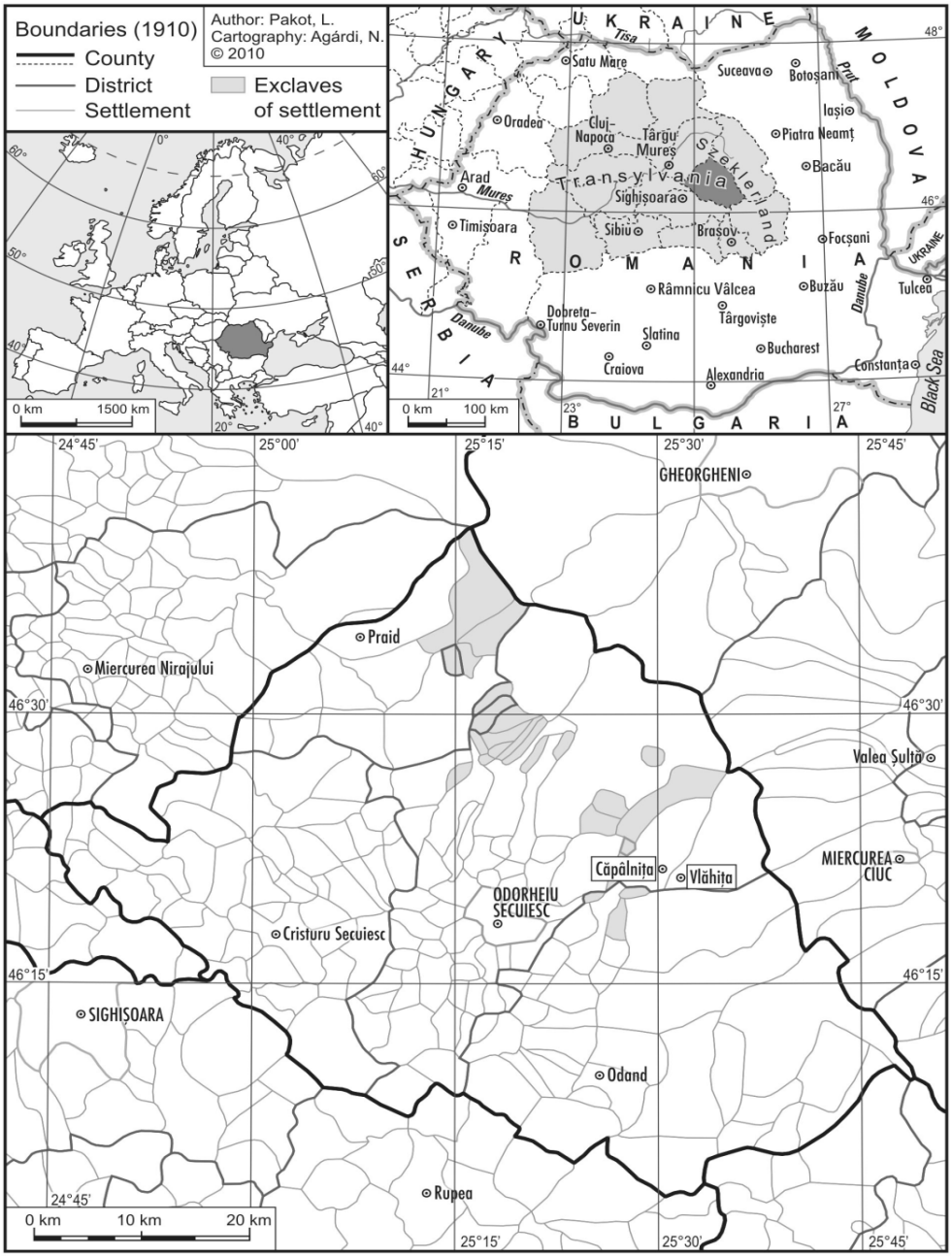
As historical demographers argue, maternal mortality explains only a smaller proportion of excess female mortality, the rest is a consequence of a gradually deteriorating health status of the mother during the reproductive stage of life (maternal depletion). The latter is due not only to repeated pregnancies and childbirths but also to the proliferation of household tasks and other duties as the number of young children in the household rose. Moreover, the "self-sacrificing" motherly behaviour in favour of the husband and the child concerning the division of food could also have played an important role. Therefore, the increasing physical and mental stress resulting

from repeated pregnancies and deliveries could become a hazard to the health status and survival chances of mothers and their infants (Alter, Manfredini & Nystedt 2004: 330, Oris, Neven & Alter 2004: 153).

According to research findings in developing countries, infant mortality is not equally distributed between families, moreover, a larger proportion of infant deaths can be often linked to a smaller proportion of the families (death clustering). In literature the phenomenon is explained by biological-demographic, genetic, socio-economic and cultural factors (Edvinsson et al. 2005, Edvinsson and Janssens 2012). The argument for a physiological-demographic and genetic explanation is the fact that the unequal distribution of infant deaths between families is mainly due to neonatal deaths, which can be originated principally from endogenous reasons. Other explanations emphasize the fact that the socio-economic characteristics of the individual coupled with environmental hygiene and health conditions can indirectly influence mortality, improving or worsening the nutritional status of women and their life quality around childbirth. In addition to that, the health status of the child can also be highly influenced by breastfeeding habits, the quality of maternal care and parental attitudes, moreover, they can be responsible for death clusters (Das Gupta 1997).

The present study investigates how the above statements apply in a rural context in Transylvania. The part below presents the characteristics of the villages under examination, then we shall introduce the data and methods used. It will be followed by the description of variables used in the multivariate analysis as well as by the drawing-up of the related expectations, then by the results and interpretation of the analysis. The study will be closed with a short conclusion.

Map 1. The area under study



2. The area under study: Vlăhiţa and Căpâlniţa

Szentegyházasfalva (Vlăhiţa) and Kápolnásfalva (Căpâlniţa) are neighbouring settlements. They are located along the southern skirts of Harghita Mountains, in the eastern part of Inner Transylvania, present-day Romania, at about 860 metres above sea level (see Map 1.). The villages lay on the frontier, far from the economic centres of Transylvania. The majority of their inhabitants belonged to the Roman Catholic Church. Due to their geographical proximity (2 km) and the joint privileges received from the Princes of Transylvania, the history of the two villages was closely interlocked: they formed one parish until 1838 and one administrative unit until 1876[1].

In 1850, the total population of the two villages was 2999, and this figure grew to 5646 by 1941. The population growth was due mainly to natural increase.

The discovery of iron ore sites close to the villages and the opening of mines were important events in the 19th Century history of the two settlements. An industrial plant, Szentkeresztbánya was founded a few kilometres away from the villages in the 1850s, which provided the opportunity for the locals to secure some extra income. Due to contemporary financial and infrastructural conditions, mining remained a small-scale enterprise.

The majority of villagers were smallholders, and their living was provided by lumbering and woodwork in the communally owned woods and extensive animal husbandry. Timbering and woodwork was carried out within a cottage industrial framework that required the close cooperation of related families. The number of water-driven sawmills operated by siblings or close relatives reached 100 according to the cadastre of 1909 (Sándor 1998). The economic development of Inner Transylvania raised the demand for woodenware. Timber used in construction and agriculture was transported in carriages by male family members towards the agriculturally more developed and more urbanised Southern Transylvanian regions.

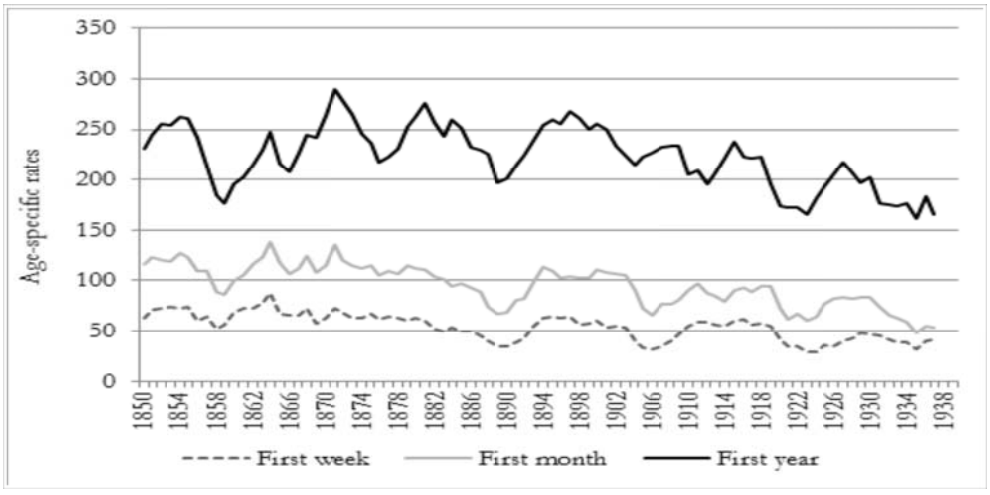
Besides their geographic and economic conditions, the population of the settlements was characterised by particular patterns of demographic behaviour. Apart from the dynamic increase of the population and its young age structure, the common demographic characteristics of the two villages included relatively high fertility, low emigration and relatively high infant and child mortality (Pakot 2013). Between 1786 and 1869, the population doubled. After 1869, epidemics (cholera in 1855 and 1873) and increased infant and

[1] For a history of the privileges of the communities, see Hermann 1999. For a detailed account of public administration changes and the process of losing the privileges in the 1870s, see Pál 2003.

child mortality in the 1870s and 1880s slowed down this increase, however, a significant increase took place around the turn of the century. An important characteristic of demographic behaviour was universal and early marriage. Average age at first marriage was 20–21 years for females and 25–27 years for males.

The mortality indexes of the two villages at the beginning of the 20th Century were among the highest both in a micro- and a macro-regional context (see Pakot 2013). In the period between 1850 and 1939 infant mortality rates varied between 200 and 350 (Figure 1.). Infant mortality rates started moderating from the first decade of the 20th Century, however, a decrease was found rather in the period between the two World Wars, in particular in the 1930s. The decrease in the latter period was primarily a consequence of improvements in neonatal (0–30 days) mortality conditions, which could have been in connection with a simultaneous fall in fertility as well (Pakot 2013: 89–104). The exploration of the factors that resulted in the decrease of infant mortality in the 20th Century calls for further research of the local history. A further assumption is, however, that a slow quality improvement of health care, a decline in infectious diseases and a better nutritional status of mothers could have been the causes of the decrease.

Figure 1. Infant mortality rates in the two parishes, 1850–1939. (Five-years moving average)



Source: Family reconstitution database, Vlăhiţa and Căpâlniţa.

3. Data and methods

The analysis is based on individual data of parish registers in Szentegyházasfalu (Vlăhiţa) and Kápolnásfalva (Căpâlniţa) in the period between 1776 and 1943. Record linkage was done on the basis of the family reconstitution method (Henry and Blum 1988). Data analysis was preceded by a sampling process. Accordingly, the sample for the analysis includes life history data of children whose parents married locally and the date of marriage dissolution – that is the date of mother's or father's death – is known. This sample mostly reflects the experience of stationary families, the least mobile ones. For source-criticism reasons the sample does not include children who were born in the neighbouring industrial plant of Szentkeresztbánya. Their parents moved to the mining site from villages along the Homorod river or in the case of a special group – the metalworkers – from the rearer provinces. Concerning a major proportion of them we do not have basic information such as the mother's age, her earlier birth history, etc. The examined population is children born int he period between 1850 and 1939. On the whole we managed to reconstruct the fate of 10559 children coming from 1883 married couples. The proportion of those who stayed alive at the end of the first year of their lives was 78% (N=8234). The sample includes 93 still births, however, these entries in registers are not systematic, and it is assumable that a proportion of the still born was not entered in the register, and another part was registered as live-born. Based on such considerations we included the still born in the investigation of neonatal mortality.

The drawing-up of variables reflecting mothers' reproductive health status required the further narrowing of the sample down to the 2nd and higher order births (N=8841). The proportion of those staying alive at the end of the first year of their life in the narrower sample is 79% (N=6972).

In order to study the relationship between the mothers' health status and the survival chances of their children under the age of 1 year we used the family reconstitution data as event history analysis (Gutmann and Alter 1993). The analysis is based on Cox's regression estimations (Kleinbaum and Klein 2012). The interpretation of the results is as follows: with the other factors being equal, the given attribute increases (or decreases) the risk of death by x%. Survival chances in infancy are in a strong relationship with the time elapsed since birth. Accordingly, the analysis handles the first month of life (neonatal period)and the period from the 2nd month until the age of 1 year (postneonatal period) as separate life stages.

4. Variables

We separated outcome variables and explanatory variables from each other. Our outcome variable is death risk in the neonatal (0–30 days) and postneonatal (31–365 days) periods.

The examined explanatory variables are as follows:

4.1.The sex of the child

A number of studies emphasize the fact that due to biological factors, boys at a neonatal age are more at risk than girls.

4.2. Multiple births/single births

In historical populations it has been observed that there is a higher neonatal mortality rate with multiple births (Reid 2001). Twins are born earlier, weigh less, therefore, are more endangered in comparison with single born babies.

4.3. The mother's age at birth

Several studies have drawn attention to the correlations between the mother's age and perinatal mortality (Hobcraft et al. 1985, Beekink et al. 2002: 246). Mortality usually exhibits a U-shape with respect to the mother's age, that is, infant mortality is generally the highest with young and older mothers. To take into account higher risk of neonatal mortality in younger and older maternal ages a four-category variable was included.

4.4. Birth interval

Frequent pregnancies and those delivered with short birth intervals raise a serious risk to both maternal and infant survival. According to Hobcraft et al. the most plausible mechanism for the deleterious effects of short birth intervals is maternal depletion: „The mother has one child and the pregnancy and birth deplete her resources. Further, she commonly breastfeed, another resource drain. She may well continue breastfeeding until she is already clearly pregnant again, especially when intervals are short and the earlier of the pair survives. Thus she has little or no time for proper recovery following the previous birth.

Because her bodily resources are depleted, the next pregnancy results in a small baby, perhaps with increased risk of prematurity. Low birth weight is associated with very poor survival chances, although excess risks decrease with age." (Hobcraft et al 1985: 376–377). We specified a four category variable to take into account birth intervals lower than 18 months, between 18 to 24 months, between 24 to 36 months, and finally greater than 36 months (see table 1.).

4.5.The proportion of older siblings died in infancy

In order to grasp the status of mothers more accurately, based on further research, we have created the variable characterising the reproductive history

of mothers (Kippen & Walters 2012, Scalone et al. 2014, Reid 2001). From family reconstitution data we calculated the number of preceding pregnancies of the mother, and the number of older siblings who died under 1 year of age including the still born as well. Dividing the sum of previous infant deaths and stillbirths by the number of children previously born we obtained the the proportion of the newborn baby's older siblings who died in infancy. In the analysis 5 larger groups were separated: 1) the proportion of older siblings who died in infancy is 0%; 2) 10–20%; 3) 20–30%; 4) 30–50%; 5) 50–100%.

On the one hand, the indicator may reflect the health status of the mother and her child care competence, and on the other hand, the general hygiene status of the family and the household. Concerning the proportion of older siblings who died in infancy it is important to emphasize the fact that with circa 43% of newborn babies all the older siblings were alive at the end of the first year of their life. However, with 67% of newborn babies there was at least one older sibling that died in infancy. Furthermore, it is characteristic of 20% of newborn babies that at least 50% of their older siblings died before reaching the first year of their life (see table 1.). Based on all that it seems infant mortality is a common experience for a considerable proportion of families, in the case of a smaller group, however, even the clustering of infant mortality can be observed.

4.6.The presence of parents and siblings

Another group of explanatory variables is made up of family composition variables, which show the presence of the family members, parents and siblings. The presence of the father and the mother could have been crucial for the survival of the infant (van Poppel 2000). The earlier examinations showed the fact that the loss of the mother has an extremely adverse effect on the survival chances of the infant. Initially the infant is fed only by the mother, and even after weaning it is the mothers who play a major role in feeding. They protect and feed their children and play a central role in the early socialisation of the child. Mothers' economic contribution helps the maintenance of the living standards of the household, therefore, they play a very important part in the preservation of their children's health status and also in their physical and emotional development.

Fathers can provide an economic support for their children. Besides, their presence could also have resulted in greater helpfulness of the male members of the community. Fathers' direct impact on the health status of their children is not as significant as that of the mother. Besides the parents the presence of close relatives could have been decisive as well. Child rearing is not exclusively the parents' task in many societies. Older siblings, especially sisters

very often take an active part in child care while their mother is doing housework or a job for subsistence. The presence of helping family members could have been crucial for the survival of children (Sear et al. 2002, Sear & Mace 2008). The adverse effect of the presence of siblings is generally explained in literature by the negative effect of rivalry between children (Kippen & Walters 2012). Where the age difference between young children is small, they have to compete for scarce parental resources such as material resources and parental care, therefore such family configurations often result in a higher death risk (Cleland & Sathar 1984). In the analysis below – somewhat arbitrarily – we chose the 6 years' age difference as a landmark to differentiate between "young" and "grown" brothers and sisters. Therefore, our variables show the presence of 0–5 year old and six year old or older brothers and sisters. The presence of older siblings aged six and over may imply the fact that the family has a child who survived the most critical stage of life, for whose growing up the parents hold out righteous hope and on whom the parents can depend concerning lesser household chores and child care. In contrast, sibling(s) younger than 6 years old may mean that the family already achieved its targeted size, and the family has a child who needs more intense parental attention and care.

4.7. Birth season

Infant and child mortality rate is often determined by weather conditions as well as by the interconnection of agricultural structures and farming (Breschi & Livi-Bacci 1994,Oris, Derosas & Breschi 2004). With children born in winter the risk of respiratory infections is the highest during the first days and weeks of life. Appropriate cautionary measures (warm clothing, a heated home, the reduction of exposure to infection etc.) may decrease death risk, however, a lower level of protection than necessary and extraordinarily cold weather may increase it. In summer children are most exposed to digestive disorders. Disease risks may change according to the child's age, however, the effect of the age is in strong connection with the fact what stage of breastfeeding the child is at.

Besides a decrease in the intensity of breastfeeding, there could have been other causes in the background of higher infant mortality rate typical of the summer season. According to the findings of examinations conducted in developing countries, the separation period and especially the quality of food at disposal in the separation period are of particular importance (Scrimshaw et al. 1968: 238–240). Digestive disorders are very often the consequences of dehydration and an inappropriate diet. Therefore, the distribution of information about the methods of rehydration and an adequate diet are of

especially great importance in such cases (Scrimshaw et al. 1968: 257). When examining the birth season we divided the year into two larger periods: from May until the end of October and from November until April.

4.8. Parish/village

The separation of Szentegyházasfalu (Vlăhiţa) and Kápolnásfalu (Căpâlniţa) allows identification of differences according to the mother's residence at the time of the child's birth.

4. 9. Birth period

Based on the birth date of infants, we divided the sample into decades of birth. After the filtering out of other effects the birth period shows timely modifications of survival chances.

Table 1. Descriptive statistics for variables included in the analysis (percentage distribution)

Variables		0–30 days	31–365 days
Sex of newborn child	Male	51,32	50,77
	Female	48,68	49,23
Multiple births	Single	97,54	98,13
	Twins	2,46	1,87
Interval since previous birth	< 18 months	13,37	13,05
	18–<24 months	20,14	20,01
	24–<36 months	47,55	47,71
	36+ months	18,94	19,23
Age of mother	< 25	15,01	14,79
	25–29	28,99	29,09
	30–34	26,56	26,75
	35+	29,44	29,37
% siblings died din infancy	0%	42,69	42,97
	10%–<20%	9,18	9,23
	20%–<30%	14,58	14,71
	30%–<50%	13,79	13,75
	50%–100%	19,76	19,33
Father	Alive	99,66	99,42
	Dead	0,34	0,58
Mother	Alive	99,69	99,64
	Dead	0,31	0,36
Brothers 6+ years old	Absent	60,86	61,09
	Present	39,14	38,91
Sisters 6+ years old	Absent	61,01	60,96
	Present	38,99	39,04

Variables		0–30 days	31–365 days
Brothers below 6	Absent	49,97	50,75
	Present	50,03	49,25
Sisters below 6	Absent	50,14	50,52
	Present	49,86	49,48
Season of birth	born in November to April	46,89	46,86
	born in May to October	53,11	53,14
Period	1850–1859	8,05	7,98
	1860–1869	9,40	9,49
	1870–1879	11,39	11,33
	1880–1889	14,18	14,13
	1890–1899	13,70	13,56
	1900–1909	12,67	12,67
	1910–1914	6,32	6,48
	1915–1918	2,63	2,63
	1919–1929	11,80	11,91
	1930–1939	9,85	9,82
Parish	Căpâlniţa	46,49	46,61
	Vlăhiţa	53,51	53,39
Individuals		8841	8080
Deaths		758	1111

Source: see figure 1.

5. Results

Table 2. includes relative risks of death in the neonatal period (0–30 days) and in the postneonatal period (30–365 days). Following the order, the first two – the sex of the newborn child and the single/multiple birth – variables show the more favourable survival chances of girls than boys as well as the less favourable situation of multiple births. During the first four weeks following birth the death risk of girls is 29% lower than that of boys. From the second month following birth these differences are moderated, however, the more favourable situation of girls compared with the situation of boys is still prevailing. The situation of babies from multiple births is extremely adverse in the first month of life, in the later period differences become moderated here as well, however, their disadvantaged situation compared to that of single born babies remains until they reach the age of 1 year.

The explanatory power of the following variables reflecting the mother's situation and health status is significant, and their effect makes itself

felt mainly in the first four weeks of life. With the increase of the lenght of previous birth interval the survival chances of babies improve significantly. Birth intervals shorter than 18 months, which are characteristic of circa 13% of the cases, pose the greatest threat to infants. Compared with the latter group, the birth interval between 2 and 3 years – which was found to be the most frequent in the villages under examination – decreased death risk by 34%. Infants born after an interval of longer than 3 years are relatively in the best situation. The relative risk of infant mortality is 50% lower among the latter group. The effect of the previous birth interval remains also in the post-neonatal period, however, here the beneficial effect of the longer interval prevails only in the group of infants born after an interval of longer than 3 years, the postponement of their birth decreases the risk of post-neonatal death by 23%. The members of the latter group are presumably given more parental care and attention, they are breastfeed by their mothers for a longer time and in addition, they do not have to compete with their slightly older siblings for parental resources, either.

Children who are given birth by older mothers clearly face a higher risk in the neonatal period than those who are born from younger – predominantly under 30 years of age – mothers, though these results are statistically no longer significant. This may indirectly refer to a higher incidence of complications around childbirth, which is even more typical of the age group.

The proportion of older siblings who died in infancy decisively influences the risk of infant mortality. Here the experience of mainly two extreme groups of mothers / children can be contrasted with each other. On the one hand, those infants at whose births all the older siblings are alive, on the other hand, those babies where the proportion of siblings who died under 1 year of age exceeds 50%. Among the latter group relative neonatal death risk is circa 41% higher compared with that of the previous group. Based on these, the uneven distribution of infant mortality by families/mothers seems to be proven.

Turning to the examination of the effects of family composition, let us first see the effects concerning the presence of parents. The presence of the mother is crucial in both periods of the first year of life. The mortality risk of infants who have lost their mothers (0,3% of the population) keeps rising to 5-6-fold and then to 10-fold. The loss of the father has an adverse impact on infants in the post-natal period, however, this effect is not significant. The presence of 0–5-year-old living brothers and those older than 6 years has a beneficial impact in the neonatal period whereas the presence of sisters has no impact, and the effects are not clear in the post-neonatal period, either. This

result refutes the hypothesis of the competition among children, at least in the first year of life. However, the beneficial influence of the presence of brothers, however, may show a selection effect as well. It is presumable that families successful in keeping their sons alive could have been in better situation: they had a more extended net of relatives, a higher economic-social status, etc.

Table 2. Cox regression analysis of the risk of neonatal and post-neonatal mortality in the two parishes, 1850–1939. Children born in wedlock

	Model 1. 0–30 days		Model 2. 31–365 days	
	Relative risk	*p*-value	Relative risk	*p*-value
Sex of newborn child				
Male (Ref.)				
Female	0,708	0,000	0,854	0,009
Multiple births				
Single (Ref.)				
Twins	6,195	0,000	2,491	0,000
Interval since previous birth				
< 18 months (Ref.)				
18–<24 months	0,668	0,001	1,052	0,632
24–<36 months	0,661	0,000	0,936	0,505
36+ months	0,496	0,000	0,769	0,026
Age of mother				
< 25 (Ref.)				
25–29	0,975	0,844	0,955	0,645
30–34	1,201	0,167	0,879	0,254
35+	1,250	0,142	1,040	0,755
% siblings died din infancy				
0% (Ref.)				
10%–<20%	0,983	0,916	0,965	0,772
20%–<30%	0,871	0,282	0,880	0,207
30%–<50%	1,082	0,514	1,000	0,985
50%–100%	1,406	0,001	1,145	0,136
Father				
Alive (Ref.)				
Dead	0,868	0,843	1,532	0,204
Mother				
Alive (Ref.)				
Dead	5,640	0,000	9,896	0,000

	Model 1. 0–30 days		Model 2. 31–365 days	
	Relative risk	*p*-value	Relative risk	*p*-value
Brothers 6+ years old				
Absent (Ref.)				
Present	0,867	0,141	1,072	0,374
Sisters 6+ years old				
Absent (Ref.)				
Present	0,989	0,912	1,011	0,882
Brothers below 6				
Absent (Ref.)				
Present	0,894	0,180	1,079	0,254
Sisters below 6				
Absent (Ref.)				
Present	0,982	0,828	0,988	0,866
Season of birth				
Born in November to April (Ref.)				
Born in May to October	0,891	0,120	1,124	0,053
Period				
1850–1859 (Ref.)				
1860–1869	0,946	0,725	0,803	0,154
1870–1879	1,034	0,822	1,086	0,552
1880–1889	0,814	0,167	1,278	0,062
1890–1899	0,916	0,552	1,290	0,055
1900–1909	0,791	0,132	1,111	0,442
1910–1914	0,969	0,858	0,724	0,073
1915–1918	0,861	0,561	1,143	0,520
1919–1929	0,623	0,004	1,002	0,985
1930–1939	0,425	0,000	0,832	0,233
Parish				
Căpâlniţa (Ref.)				
Vlăhiţa	0,942	0,428	1,093	0,142
Individuals	8841		8080	
Deaths	758		1111	
Max Log Likelihood	-6682,3		-9812,6	
Overall p-value, LR Chi2	355,1	0,000	201,4	0,000

Source: see figure 1.

Finally let us see the environmental variables, first of all, the effect of the birth season. A warmer season increases neonatal survival chances whereas a colder one makes them worse. However, in the post-neonatal period infants born in warmer seasons are more vulnerable, which could be in connection with an early weaning. As the infant is growing older the place of respiratory diseases dominant in early infancy are taken over by gastrointestinal infectious diseases. It is also presumable that early separation could have been accelerated by agricultural work due in the warmer seasons.

The effects of historical periods show an improvement in neonatal mortality conditions between the two World Wars. Post-neonatal mortality clearly worsens in the period between 1870 and 1890, and survival chances significantly become worse in the years right before the turn of the century as well as during the I. World War. A noticeable improvement in this respect is shown in the 1930s, when the risk of post-neonatal mortality decreases by circa 50%.

The parish of residence is a differentiating factor of post-neonatal mortality and indirectly shows a more intense presence of epidemics in Szentegyházasfalu (Vlăhiţa).

6. Conclusion

In the above we examined the relationship between mothers' health status and infant survival chances in two transylvanian mountain villages between 1850 and 1939. As indicators of maternal health status we used the informations about the mother's age at childbirth, the length of previous birth intervals and the proportion of older siblings who died in infancy. According to the results, survival chances of the newborn in the first 30 days from birth strongly depended on the mother's health status. With respect to neonatal survival, a short – here under 18 months – birth interval presented a high death risk. Another high risk factor was if a large proportion of the mother's previously born children died in infancy. Furthermore, the uneven distribution of infant mortality by families – known from international examinations – has also been confirmed. The death clustering can be explained by biological-demographic-genetic, hygiene, social and cultural factors and presumably by diverse infant care patterns. In one group of the mothers the above factors could as well have occurred together. Women living in poor conditions could have been strongly characterised by doing hard manual labour, which could have resulted in the deterioration of their health status and the early depletion of physical resources necessary for breastfeeding. Infectious diseases may have occurred in their households more considerably. However, the fact that death clusters

predominated around the time of childbirth and in the neonatal period refers to the endogenous nature of the underlying factors, that is the connection with the mother's health status. This could be further examined using cause-of-death data. As a general conclusion we agree with Alice Reid: "The mother acts as an intermediary between outside influences and the health and survival of her children, filtering out the effects of a poor environment by her actions, but also possibly handing down a health status legacy as affected by her nutrition, environment and upbringing." (Reid 2004: 151).

References

Primary sources

Arhivele Naţionale ale României Direcţia Judeţeană Harghita, Miercurea Ciuc [The National Archives of Romania, Harghita County Regional Archive]

Fond 47. Colecţia registrelor de stare civilă [Parish registers]: 81, 82, 83, 84, 85, 728, 729, 730, 731.

Szentegyházasfalusi Római Katolikus Egyházközség Levéltára [Roman Catholic Parish Archive, Vlăhiţa]

Parish registers, 1776–1941 (vol. II–X.)

Kápolnásfalusi Római Katolikus Egyházközség Levéltára [Roman Catholic Parish Archive, Căpâlniţa]

Parish registers, 1838–1941 (vol. I – V.)

Secondary sources

Alter, G., Manfredini, M. & Nystedt, P. (2004). "Gender Differences in Mortality". In Bengtsson, T., Campbell, C. & Lee, J. Z. (eds.). *Life under pressure: mortality and living standard sin Europe and Asia, 1700–1900*. Cambridge, MA: MIT Press, pp. 327–357.

Beekink, E., van Poppel, F. & Liefbroer, C. A. (1999). "Surviving the loss of the parent in a nineteenth century Dutch provincial town". *Journal of Social History* 32 (4): 641–670.

Bideau, A., Desjardins, B.& Perez, H. (eds.) (1997). *Infant and Child Mortality in the Past*. Oxford: Clarendon Press, pp. 135–153.

Breschi, M. and Livi-Bacci, M. (1994). "Le mois de naissance comme facteur de survie des enfants". *Annales de démographie historique*, 169–185.

Breschi, M., Derosas, R. & Manfredini, M. (2004). "Mortality and environment in three Emilian, Tuscan, and Venetian communities, 1800–1883". In Bengtsson, T., Campbell, C. & Lee, J. Z. (eds.). *Life under pressure: mortality and living standard sin Europe and Asia, 1700–1900*. Cambridge, MA: MIT Press, pp. 209–252.

Cleland, J. and Sathar, A. Z. (1984). "The effect of birth spacing on childhood mortality in Pakistan". *Population Studies* 38 (3): 401–418.

Das Gupta, M. (1997). "Socio-economic status and clustering of child deaths in rural Punjab". *Population Studies* 51 (2): 191–202.

Edvinsson, S., Brändström, A., Rogers, J. & Broström, G. (2005). "High-risk families: the unequal distribution of infant ortality in nineteenth century Sweden". *Population Studies* 59 (3): 321–337.

Edvinsson, S. and Janssens, A. (2012). "Clustering of deaths in families: infant and child mortality in historical perspective". *Biodemography and Social Biology* 58 (2): 75–86.

Gutmann, M. and Alter, G. (1993). "Family Reconstitution as Event History Analysis". In Reher, D. – Schofield, R. (eds.). *Old and New Methods in Historical Demography*. Oxford: Clarendon Press, pp. 159–177.

Henry, L. and Blum, A. (1988). *Techniques d'analyse en démographie historique*. Paris: INED.

Hermann, G. M. (1999). "Az udvarhelyszéki Havasalja kiváltságos települései: a két Oláhfalu és Zetelaka". [The privilegious settlements in Havasalja, Udvarhelyszék district]. In Kiss, A., Kovács Kiss, Gy., Pozsony F. (eds.). *Emlékkönyv Imreh István nyolcvanadik születésnapjára.* [István Imreh memorial volume in honor of his 80th birthday]. Kolozsvár: Erdélyi Múzeum-Egyesület, pp. 138–198.

Hobcraft, J. N., McDonald, J. W., John & Rutstein, S. O. (1985). "Demographic determinants of infant and early child mortality: a comparative analysis". *Population Studies* 39 (3): 363–385.

Imhof, A. (1984). "The Amazing Simultaneousness of the Big Differences and the boom in the 19th Century – Some facts and Hypotheses about Infant and Maternal Mortality in Germany, 18th to 20th Century". In Bengtsson, T. , Fridlizius, G. & Ohlsson, R. (eds.). *Pre-Industrial Population Change: The Mortality Decline and Short-Term Population Movements*. Stockholm: Almquist and Wiksell International, pp. 191–222.

Kippen, R. and Walters, S. (2012). "Is Sibling Rivalry Fatal? Siblings and Mortality Clustering". *Journal of Interdisciplinary History* 42 (1): 571–591.

Kleinbaum, D. G. and Klein, M. (2012). *Survival analysis: a self-learning text*. New York: Springer.

Knodel, J. (1988). *Demographic Behaviour in the Past: A Study of Fourteen German Village Populations in the Eighteenth and Nineteenth Centuries*. Cambridge: Cambridge University Press.

Lynch, A. K. and Greenhouse, B. J. (1994). "Risk Factors for Infant Mortality in Nineteenth-Century Sweeden". *Population Studies* 48 (1): 117–133.

Oris, M., Derosas, R. & Breschi, M. (2004). "Infant and child mortality". In Bengtsson, T., Campbell, C. & Lee, J. Z. (eds.). *Life Under Pressure: Mortality and Living Standards in Europe and Asia, 1700–1900*. Cambridge, MA: MIT Press, pp. 359–398.

Oris, M., Neven, M. & Alter, G. (2004). "Maternal Depletion and the survival chances of infants and children in nineteenth-century Eastern Belgium". In Breschi, M.& Pozzi, L. (eds.). *The determinants of infant and child mortality in past European populations*. Udine: Forum, pp. 153–173.

Pakot, L. (2013). *Nemek és nemzedékek: demográfiai reprodukció a 19–20. századi Székelyföldön*. [Generations and gender: demographic reproduction in rural Szeklerland, 19th and 20th centuries]. KSH NKI Kutatási Jelentések 95. [HDRI Working paper n. 95.]. Budapest: KSH NKI.

Pál, J. (2003). *Városfejlődés a Székelyföldön, 1750–1914*. [The urban development in Szeklerland, 1750–1914]. Csíkszereda: Pro-Print.

Perrenoud, A. (1981). "Surmortalité féminine et condition de la femme (XVIIe–XVIIIe siècles). Une vérification empirique". *Annales de démographie historique*, 89–104.

Reid, A. (2001). "Neonatal mortality and stillbirths in early twentieth century Derbyshire, England". *Population Studies* 55 (3): 213–232.

Reid, A. (2004). "Child Care and Maternal Health: Intermediaries between Socio-economic and Environmental Factors and Infant and Child Mortality?" In Breschi, Marco & Pozzi, Lucia (eds.). *The determinants of infant and child mortality in past European populations*. Udine: Forum, pp. 139–152.

Sándor, L. (1998). "Fűrészek, malmok, ványolók jegyzéke az 1909-es kataszteri telekkönyv és telekkönyvi rajzok alapján". In Kardalus József (ed.). *Népélet a Kis-Homoród mentén*. Szentegyháza, pp. 112–116.

Scalone, F., Agati, P., Angeli, A. & Donno, A. (2014). "Perinatal and neonatal death clustering in an Italian sharecropping community in the first half of the nineteenth century". Unpublished paper, Lund University Centre for Economic Demography. http://www.lusem.lu.se/media/ed/seminar_papers/scalone_seminar_october_2014.pdf.downloaded: 2015.03.09.

Schofield, R. (1986). "Did mothers really died? Three centuries of maternal mortality". In Bonfield, L., Smith, M. R. & Wrightson, K. (eds.) *The World We Have Gained. Histories of Population and Social Structure*. Oxford: Basil Blackwell, pp. 231–260.

Scrimshaw, S. N, Taylor, E.C & Gordon, E.J. (1968). *Interactions of Nutrition and Infection*. Geneva: World Health Organization.

Sear, R., Steele, F, McGregor, I. A. & Mace, R. (2002). "The effects of Kin on Child Mortality in Rural Gambia". *Demography* 39 (1): 43–63.

Sear, R.& Mace, R. (2008). "Who keeps children alive? A review of the effects of kin on child survival". *Evolution and Human Behavior* 29 (1): 1–18.

van Poppel, F. (2000). "Children in One Parent Families: Survival as an Indicator of the Role of the Parents". *Journal of Family History* 25 (3): 269–290.

Stages of Labor Market Integration and Strategies among the Racialized Migrants-Study

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Abstract: This article explores racialized migrants labour market integration strategies, utilizing many of their own words which were gathered through an intensive one-on-one interviews followed by a focus group interview with 30 participants. The outcome revealed 10 phases of jobs search strategies and its outcomes. The results highlights migrants resiliency in dealing with difficulties of acquiring new skills and securing employment in their local labour market. These difficulties subsequently led to accepting entry level jobs, re-training for new skills, working overseas or relocating nationally and internationally to work in their field.

Keywords: labor market, migration, ethnicity, employment, integration, exclusion

1. Background

The difficulties of unemployment and under-employment among racialized migrants in Canada can be better conceptualized through a review of the current employment programs, funders in government, regulatory bodies, and employers (Girard & Smith 2009). In this context, the mentioned stakeholders have continued to attribute the high unemployment rate and difficulties of securing jobs migrants' lack of knowledge and limited understanding of the local labor market's requirements (Jedwab 2006). These interpretations of migrants' experiences with unemployment and difficulties in finding employment have been less than helpful in the process of integrating theme as contributing human resources in the Canadian work force. Even so, all levels of governments (municipal, provincial, and federal) continue to set up multi-million dollar employment and integration programs based upon these perceptions (Picot 2008). Few attempts were made to understand employers, labour unions and affiliated regulatory bodies control over the hiring requirements for jobs and the screening of prospective employees.

These screenings in its application are not limited to skills, qualifications, and abilities, but extended to the candidate's knowledge of prevailing social norms and workplace culture (Rodriguez 1997). According to Baklid (2004), the screening includes the unstated requirements of cultural awareness and what is known as "becoming more Canadian," such as speaking English without an accent, obtaining a Canadian education, understanding Canadian social norms and having a form of work experience in Canada. These requirements often prevent job seekers from obtaining jobs and hinder their ability to hold jobs or advance in their careers. Baklid (2004) states:

> "*One of the main barriers involves an applicant's "fit" with a position or an organization. Research has shown that personality and person-organization fit are powerful predictors of job performance. However, many visible minorities believe this is an area where systemic discrimination hides. Indeed, the criterion of "personal suitability," which can exist for positions at all levels of an organization, appears to be a determining factor for management roles. For example, executive search firms looking to staff a senior position focus on whether a candidate's personality meshes with the overall organizational culture. The issue, from the point of view of several visible minorities...is that fit or suitability often comes down to chemistry between the hiring manager and the candidate. Visible minority candidates who had been unable to create a rapport with hiring managers due to different backgrounds and ethnicity left the interviews feeling that prejudice may have been to blame*" (Baklid 2004: 3).

In this context, Yoshida & Smith (2008) suggests that racism and racial bias, among other factors, have been of concern to many migrants in Canada. According to Reitz and Banerjee (2007), most Canadians do not believe they practice racism, but they have limited interaction with members of various other ethnic groups in neighborhoods and workplaces. However, within the racialized migrants' communities, the perceptions of the existence of racial discrimination in employment are relatively extensive. The Minority Survey conducted in 1992 in the City of Toronto indicated that 78% among Blacks believed their group was the target of employment discrimination (Buzdugan & Halli 2009).

To make things even more difficult, employment programs and services do not focus in helping these targeted groups better understand employers' expectations, the requirements of regulatory bodies, licensing and credentialing, or structures around union affiliations (Goldberg 2000).

Employment programs and services helped participants gain knowledge and a tool regarding how to look for jobs, however, it was the

individual job seeker's responsibility to deal with regulatory bodies, workplace cultures, and union affiliation requirements. These numerous requirements appear complicated and difficult to navigate. In addition to being unfamiliar with the workplace culture and Canadian social norms, many of these migrant job seekers had never worked in a unionized environment, nor were they expecting to be eliminated from jobs due to the routine undervaluing and discrediting of the credentials they had achieved in their home countries (Reitz & Verma 2004). These factors combine to make it more difficult for these migrants to understand the employment system and successfully navigate through the processes necessary to obtain and keep jobs. For these reasons, the percentage of unemployed and underemployed racialized migrants remains high in Canada. These migrants believe that the huge disparity is because they are seen as "other" in the hiring process (Madut 2013a).

The consequences of such exclusionary practices and marginalization were evident in what (Wald & Fang 2009), defined as a discouraged work force. These are people who drop out of the labor force during a period of high unemployment to engage in household activities or return to school. Discouraged workforce in the case of racialized migrants is evident in continues retraining, volunteering and prolonged language training and job search.

The term "racialized persons" refers to those people who self-described as a visible minority on the 2006 Census. According to the 2006 Census, the unemployment rate among racialized migrants stands at 18% among recent immigrants aged 15 to 24, and 13% among recent migrants aged 25 and up (*Statistics Canada* 2006).

To further illustrate the current changes in the demographic profile of racialized migrants in Canada, Reitz (2001) cited the 1996 census, which indicated that most recent immigrants of employable ages possessed more than a high school education; nearly a third had college degrees. Even so, these qualifications and years of experience did nothing to improve the economic conditions of these highly skilled migrants. Consequently, the 1991 census indicated that for some of these racialized groups, the poverty rate remained high (Kazemipur & Halli 2000). Thus, the fair question to be asked is how these migrants coped with all these socio-cultural and economic challenges of during the course of integration into the local Canadian labor force (Madut 2013b).

2.Method of Inquiry

Data were gathered through intensive interviews of between one and two hours with 16 visible minority migrants and one focus group interview with 14 participants, for a total of 30 participants. The intensive one-on-one interview was followed by a group interview with four other participants for about 3.5 hours, in which the same questions used in the intensive interviews were asked. The purpose of the group interview was to give participants the opportunity to cross-reference their stories and to provide additional information if other participants felt they could add more data on a given situation or had a different experience with the same incident. The research question is to:

> A. Explore racialized migrants insights on how they dealt with barriers of access to employment and re-training for a meaningful employment, and successful integration into the local labor force,
>
> B. Examine the alternative measures adopted to overcome the complicated employment requirements, regulatory assessments and effects of unemployment on their social and economic well-being.

All participants were identified as racialized migrants using the definition of the Employment Equity Act of 1986. These participants have lived in Canada between three and thirty years. They have met the following screening criteria to participate in the study: [1] self-identified as a member of the groups targeted by the Employment Equity Act under the cluster of visible minority migrant, [2] unemployed or underemployed, and [3] has been living in Ottawa, Canada for the last three years. The screening was done through a personal information questionnaire that included name, date of birth, age group, profession, employment status, their countries of origin, number of years in Canada and first city of residency in Ottawa.

3. Participants' Profile

Participants in this project were 16 females and 14 males, with an age range of 30 to 55 years of age. About 60% of the group spoke and wrote both Canadian official languages of French and English. As far as countries-of-origin were concerned, they represented Mexico, Peru, Somalia, Sudan, China, Burma, Egypt, and Ethiopia. See table 1 below for participant profiles.

Table 1. Participant profiles

Number of Participants	30 (100%)
Gender	Female 4 (40%) and 6 Male 60%)
Age-group	30-55 years old
Countries of origin	Mexico, Peru, Somalia, Sudan, China, Burma, Egypt, and Ethiopia.
Regions	Africa, Asia and South America
Languages	English (40%) English and French (60%)
Education	BA, MA, and PhD

4. Data Collection and Analysis

The techniques used in data collection incorporated open-ended interviews and focus groups. Interviews included written field notes, observations and one-on-one conversations with the participants. This process also included sound-recording tapes and field notes. The information collected was written up afterward, classified, coded, and interpreted in conjunction with grounded theory method. This study uses the qualitative design of a grounded theory, which was historically developed and successfully used in sociology by Glaser and Strauss. Grounded theory is defined as an inductive reasoning process emanating from a corpus of information that facilitates development of theory (Charmaz 2006; Glaser 1998; Dey 1999).

The following quotes from participants' stories clarify job search strategies used to deal with both systemic and bureaucratic barriers they have faced during the course of labour market integration. These quotes are subsequently emerged in [9] themes, which also understood as phases of job search strategies as in the following,

Theme [1]: Understanding Barriers:

> "*After 30 years of living in Canada, I started to feel that my age become a barrier to employment because some employers preferred young people, not a guy like me. I have also noticed gender biases in hiring practices in Ottawa, as some employers preferred hiring women than men to attract customers….of course color of skin is the obvious, even though employers are trying to be polite about stating it... also, nationality is another tool of discrimination employers used*" (Adam).

Theme [2]: Re-training:

> "*I had an opportunity to take a course to be an Ultra Sound Technician. That course was a fast track course geared toward foreign-trained doctors for three months to work as an ultra sound technician in Canada and the United States, as I could have written a test for the two Associations. The cost of the course was $3000 and I didn't have the money for it. I asked for the money through Employment Insurance, through Human Resources Development Canada (HRDC) to cover the cost of training, but they denied me because of having a Master of Social Work from Canada which didn't even help me find employment. Their decision made me very upset with the system, because that course would have encouraged me to go back to work in my field as a Medical Doctor*" (Susan).

Theme [3]: Canadian education:

> "*I had my BA and Master's degree in the field of hospitality from Canada, but employers would prefer hiring young high school nice-looking white men or women to promote business rather than old visible minority migrant like myself with high degrees in the sector…. I did apply for several years to work in my field, but I don't think my resume reached managers. ..I think my resumes were being destroyed. Out of suspiciousness, I always provided them with extra copy of my resume when I did follow up, but there was no success*". (Richard).

Theme [4] Volunteering:

> "*I have volunteered with the following agencies: United Nations Association in Canada for six months, Catholic Immigration Center, and Overbrook Forbes Community and Resource Centre simultaneously for four years. I am currently working for not-for-profit sectors in which there is no room for promotion unless a higher position becomes vacant. However, there were opportunities to develop new projects; also a promotion may be available through creation of new projects. We have lot of independence within individual job description, opportunity to excel and to do more and better programs. Moreover, there is no seniority consideration in job assignment, as well as respect for diversity at workplace*" (Robert).

Theme [5]: Survival work:

"*I started asking my friends where to go and look for jobs having a BA in Psychology and previous work experience as therapist. My friend said to me, forget it; for "us" we have to work in factories only [...] it is a quick way to finding employment [...] When I finally gave up and went to the factory to look for a job to support myself, a person in the building saw me and said in French go away, there are no jobs, in a very rude manner... I was shocked to find myself being demoted and treated like that*". (Angela).

"*…when we cannot access employment opportunity in our field due to certification and skill set requirement, we tend to look for survival jobs due to family obligations and responsibilities. We always begin with jobs that will help us get immediate income. However, moving out of these survival jobs' usually requires a lot of effort and may even mean going back to school to pursue a second career*". (Abdul).

"*… with a B.A in Sociology, I got difficulties finding jobs in my field, though I had a good education and skills. I was under-employed and worked on call, or did part time jobs unrelated to my field of study. My first job was in McDonald's restaurant, which I didn't keep because of type of language young people used at work place*" (Surgie).

Theme [6]: Working in different field:

"...I know am a Medical Doctor, but now that I have a degree in Social Work from Canada I will continue to work here as a Social Worker. I know I have a Master's degree from Canada, but it would not be the same as people who were born and finished their schooling here and have the same Master's degree" (Anne).

"I had my first degree in sociology from back home...I am now on a career transition to do Master's program either in social work, or conflicts studies program to increase my employability skills. Since labor market is unstable and frustrating in Canada, it is hard to decide or say anything about my future career or employment situation at this time" (Surgie).

Theme [7] Relocation:

"*I am moving from Ottawa to Calgary because of the unemployment and demands for bilingualism. As unilingual English, I have failed to obtain a*

> *meaningful job and am unable to help my children with their homework due to long shifts services jobs. I decided to move to Calgary, where my kids would have access to English schools...My employability situation may not change, but at least I would be able to help my kids and followed their progress in school. Moving to a new city can be just like migrating to a new country".* (Richard).

Theme [8] Returning to countries of origin:

I am not doing anything important here in Canada, and not sure why I am still here. Even though I will be leaving Canada, I still believe that Canada has great values I liked; however, I do not want to live here poor forever.

> "*…I have a Master's degree from Canada and learned to speak French; I think my skills would be competitive in China. I am also planning to complete another certificate at Algonquin College for one year if granted funding. After I finish, I hope to find a job here in Canada. If not, I will continue to look for jobs in China"* (Jung's).

Theme [9] Seeking opportunities overseas:

> *"I tried my best to get Canadian education, skills and experience but they didn't take me anywhere… I applied for a Ph.D. at the University of Guelph, but found Social Services jobs were by employers who were receptive to work with visible minority migrants. Later, I found that it was difficult to reach all of my potential in Ottawa with my given skills and education. I then applied to international organizations and found a job overseas with the UNDP"* (Ahmad's).

5. Data Interpretations

A limitation of this study is that it is not meant for generalization due to the number of the sample participated in study (30 participants). Even so, the research revealed important outcomes as shown in the following [9] phases below.

Table 2 Phases of Integration stratigies

Cycle of Job Search	Integration strategies
Phase 1	Understanding barriers
Phase 2	Re-training
Phase 3	Canadian education
Phase 4	Volunteering
Phase 5	Seeking survival jobs
Phase 6	Working in a different field
Phase 7	Returning to countries of origin
Phase 8	Relocation
Phase 9	Seeking opportunities overseas

Generally, the [9] phases of the racialized migrants' labor market integration and strategies are better understood in misunderstandings of complication of demands for "*Canadian experience*" and what it entailed, which was neither well-defined nor clearly understood by the racialized migrants (Madut 2013b). These migrants therefore concluded that taking up further training or volunteering in Canadian institutions could resolve the dilemma and help reduce the Canadian workplace skills gap. Even here, there was confusion over how to go about selecting training, as some institutions evaluated foreign degrees as equal to degrees obtained from Canada, yet the same foreign degree could not substitute for a local degree when applying for a position. In other words, one could not take the degree at a Canadian college because the college considered it redundant, yet the degree was not considered equal when applying for a job (Madut 2013a). One means of solving this dilemma was to earn a graduate degree from an accredited Canadian institution. Escaping this dilemma, however, cascaded into another. In this context, completing further post-secondary studies in Canada led to the classification of "overqualified candidate" for jobs available to them, which was another factor promoting unemployment among racialized migrants.

Accordingly, migrants came to the conclusion that accepting training in a *different* field, especially at the advanced level, was preferable to training that led to an entry level position in the field of profession.

Another rationale for accepting training in a different field was to avoid feelings of demotion in the field of specialization, as racialized migrants professionals felt that they had more skills and qualifications than their superiors in the workplace. The decision to seek training was prompted by

complicated labour market requirements and lack of understanding of the systemic and bureaucratic barriers in the profession. The cycle of training and active job search continued until a full time job was attained, high debt was accumulated, or individuals were not financially able to pay for the cost of more training. Training was considered "successful" if it led to a meaningful full time job in the field of profession. Otherwise, re-training in the field of profession was revisited if an opportunity warranted.

Participants thought that, an advanced training gained from Canada had an impact on assessment for further training, or retraining in the field, when the financial burden was covered by government employment services and programs. In some situations, individuals preferred to continue training because they thought working in entry level positions was a waste of time, talents and resources. Participants thought that experience gaps often perceived by employers as their personal deficit were, in fact, a matter of previous work experience obtained in country-of-origin and educational background being inappropriately assessed and recognized. The employers depended heavily on the regulatory bodies for credential assessment and interpreted this as an accurate indication of the candidates' ability to function in their field of profession. Participants felt that this sort of evaluation and its letter of assessments were meaningless and worthless, except for the minimal confirmation of the authenticity of degrees and the degree-granting institution. Other professions such as medicine, engineering and teaching required further accreditation, licensing, regulatory body registration, and union affiliations.

Participants' disparities were discussed in form of difficulties with licensing, accreditation and evaluations, which they thought took an unduly long time to assess, were costly and were not recognized by employers. The pattern of requiring minority foreign-trained doctors to take additional tests and training not required of their Canadian-born counterparts in the same field, with the same qualifications, was also a barrier. Further, after passing the prescribed test, racialized foreign-trained doctors in the field of medicine were required to secure residency in the rural areas to practice under the supervision of a practicing Canadian doctor. Participants discussed this requirement as challenging due to the unwillingness of many hospitals to allow racialized foreign-trained medical residents to practice in hospitals under the supervision of a practicing Canadian doctor. Racialized migrants who had passed the required exams were given a fraction of the residency spaces available annually —in fact, less than a quarter of the total number allocated to the Canadian born who graduated from Canadian medical institutions.

These complicated measures have forced many migrants to leave their profession and work in survival and labor jobs. Participants thought that their decision in accepting training in a different field and recognizing the importance of training in that profession to secure a job in local labor market, (i.e., those with doctoral degrees becoming taxi drivers, and medical doctors becoming personal support workers or nurses) have led to gaining new skills and losing important skills they have gained back home. Career change was considered an alternative to obtaining Canadian qualifications and work experience. According to the participants, major substitutes for foreign credentials and factors that helped in attaining Canadian workplace experience were retraining, work placement, and volunteering with public and non-profit organizations. In this respect, participants' interaction in local labor market jobs has shown that finding jobs with Foreign Credentials and qualifications is difficult. Accordingly, retraining was considered an alternate pathway, whereby the visible minority immigrant might enter the Canadian labor market with skills and trainings attained in Canada.

Participants discussed four avenues in their decision-making process that led to selecting a training that fit their aspirations and needs for their professional development. These consisted of [1] choosing training through evaluating experiences of other individuals with the same profession and seeking jobs and training in the same field, [2] a struggle with letting go of previous qualifications and seeking training in different fields of specialization, [3] reconsidering training in the profession, and, [4] deciding what training fits their professional needs. These four stages are best understood as the factors influencing the decision-making process leading to selection of training and retraining, including volunteer work. Failure to attain or retain jobs with Canadian education and training have forced them to accept jobs as laborers, finding jobs in different profession, seeking opportunities in other provinces, finding jobs overseas or retuning to home of origin whenever safe to do so.

6. Conclusion

The socio-cultural realities of the Canadian labor market and the many ambiguous requirements placed on racialized migrant job seekers have created a perception that having a Canadian education may reduce prejudices when competing for jobs with mainstream Canadians having the same qualifications. It is relatively true that recognition of a Canadian education and abandonment of foreign credentials has improved the racialized migrants' chances to gain jobs through work placement and internships. However, it did not mean an equal status with Canadian-born candidates when competing for a job, as

employers would still prefer a Canadian-born candidate with the same qualifications because of factors such as cultural familiarity, gender, business experience, and age differences. These hurdles were ubiquitous, including the requirements of regulatory bodies, professional colleges, and even union affiliation.

Therefore, early exposure to workplace culture and the way the labor market works in Canada would save many wasted dollars, wasted hours, and enormous turmoil. These could be achieved through work placement, internships, mentorship and job shadowing. Nonetheless, it would be an added value if Canadian institutions were willing to accept racialized migrants professionals to join their institutions to practice and be mentored by Canadian professionals (Madut 2013b).

It does not make sense to give potential immigrants priority admission to Canada and tell them their skills are needed and then abandon them to a complicated process in which they endure systemic racism, protectionism and wherein jobs and access to economic opportunities are reserved for mainstream Canadian-born professionals.

Consequently, most migrants continues to spend several years of their lives acquiring new trainings to secure employment, and subsequently losing skills which were considered an asset in the process of migration to Canada. It is therefore fair to say that, effective integration into the Canadian Labor Market requires more than "Canadian experience", but, it is important to address the socio-cultural and bureaucratic factors discussed by participants as barriers, but often seriously ignored by employers, professional and policymakers.

References

Baklid, B. (2004). *The voices of visible minorities: Speaking out on breaking down barriers.* The Conference Board of Canada. Retrieved January 6, 2012, from http://www.diversityatwork.com/pdfs/twiconferenceboardresearch.pdf.

Buzdugan, R. & Halli, S. (2009). "Labour market experiences of Canadian immigrants with a focus on foreign education and experience". I*nternational Migration Review* 43(2): 366-386.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Los Angeles, CA: Sage.

Dey, I. (1999). *Grounding grounded theory: guidelines for qualitative inquiry*. San Diego: Academic Press.

Goldberg , M. (2000). *The facts are in! Newcomers' experiences in accessing regulated professions in Ontario*. Toronto, ON: Ontario Ministry of Training, Colleges and Universities. Access to Professions and Trades Unit.

Glaser, A. Barney G. (1998). *Doing grounded theory: issues and discussions*. Mill Valley, Ca.: Sociology Press.

Girard, M. & Smith, M.R. (2009). *Working in a regulated occupation in Canada: An immigrant-native-born comparison. Canadian Labour Market and Skills Researcher Network*. Working Paper No. 44. Ottawa: HRSDC and SSHRC.

Jedwab , J. (2006). "Canadian integration: The elusive quest for models and measures". *Canadian Diversity* 5(1): 97-103.

Kazemipur, A., and Halli , S. (2000). *The new poverty in Canada: Ethnic groups and ghetto neighborhoods*. Toronto, ON: Thompson.

Madut, K. (2013a). "Ethnic Identity and Psycho-Social Well-being among New Canadian Migrants". *International Journal of Humanities and Social Science* 3 (18): 84-92.

Madut, K. (2013b)."Ethnic Migrants: Perspectives on Support Programs, Employability and Resettlement Challenges in Ottawa, Canada", *International Journal of Contemporary Research* 3 (10): 113-120.

Picot, G. (2008). "Immigrant economic and social outcomes in Canada: Research and data development at Statistics Canada (catalogue no. 11F0019MWE)". *Analytical Studies Branch Research Paper*. Ottawa, ON: Statistics Canada, Government of Canada.

Reitz, J. G. (2001)."Immigrant success in the knowledge economy: Institutional change and the immigrant experience in Canada, 1970-1995". *Journal of Social Issues* 57(3): 579-613.

Reitz, J. & Bannerji, R. (2007). "Racial inequality, social cohesion and policy issues in Canada". In K. Banting, T.J. Courchene, & F.L. Seidle (eds.). *Belonging? Diversity, recognition and shared citizenship in Canada*. Montreal: Institute for Research on Public Policy, pp. 489-546.

Reitz, J. & Verma, A. (2004). "Immigration, race, and labour: Unionization and wages in the Canadian labour market". *Industrial Relations*. 43(4): 835-854.

Reitz, J. G., and Banerjee, R. (2006). *Racial inequality, social cohesion, and policy issues in Canada*. University of Toronto. Retrieved April 2, 2012, from http://www.utoronto.ca/ethnicstudies/Reitz.Banerjee.pdf.

Rodriguez, A. (1997). R*acial minority immigrant women*: *Problems and obstacles in mainstream organizations*. Ottawa, ON: Carleton University.

Wald, S. & Fang, T. (2009). "Overeducated immigrants in the Canadian labour market: evidence from the Workplace and Employee Survey". *Canadian Public Policy* 34(4): 457-480.

Yoshida, Y. & Smith, M.R. (2008). "Measuring and mismeasuring discrimination against visible minority immigrants: The role of work experience". *Canadian Studies in Population* 35(2): 311-338.

Emigration and the Impact on Children Left Behind, in Slănic Moldova Town

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Abstract: This study examines a Romanian town from Bacău county, named Slănic Moldova, which has experienced a strong emigration. The survey help to see the attitude of children concerning the migration of their parents and what chances are to continue their studies. Were all questioned 80 students from the age of ten to the age of nineteen. Using the data obtained through the application of questionnaire, this article try to give an answer to the following question: "Is parental migration a barrier on children development, or contrary to this idea, children whose parents migrate are more likely to continue their studies?".

Keywords: emigration, impact, children left behind, questionnaire, Slănic Moldova.

1. Introduction

Population mobility lead to significant changes, demographic, economic and social, both in migrants' countries of origin and in the destination. In recent years, a significant increase in international migration and remittance flows as well as increased awareness of the impact of their development have led to a growing interest among academics, analysts, politicians, interest focused on what was referred to as third stage of globalization: migration.

Research Department of the Agence Française de Développement (AFD) and the World Bank Development Research Group, for example, have collaborated on Several research projects on the subject. Studies have shown that, in general, international migration has a positive impact on poverty reduction and investment in human capital. Migration has been shown to have a positive impact on trade (Rauch & Trindade 2002, Iranzo & Peri 2009) and foreign direct investment (Kugler & Rapoport 2007).

It strongly supported the fact that migration influences fertility in both the country of origin of migrants as well as the destination, and this is clear even at the most superficial analysis. It is known that there are many researches about the positive impact on the economy, but less about the impact on children left behind. So what happens to those children left behind under the supervision of one parent, an elder, or relatives? When a household member migrates, there is a complex range of social consequences, in addition to demographic and economic ones, in the daily life of those who remained in the household of origin.

Often they emphasized the benefits of the family left behind in terms of remittances, regarded as a positive factor, as the study of two important researchers Mangiavacchi and (2010), for example . In fact there are more and more complex social and economic consequences. We need to look back, to those left behind, to get a comprehensive analysis on the degree of social and economic change.

This research will not be about the economical changes produced by migration, and also will not evaluate all the social changes that occur as a single unit is insufficient to cover an area so large and complex. I'll try to focus on the children left behind, the impact of parental migration on children's education, using the questionnaire method.

The present study is a continuation of another one started about a year ago in the village of Vaslui county, Romania, named Vultureşti, when I used the interview as a method of investigation. Following that study, I concluded that a questionnaire would be very efficient, the results could be sharper. So I will try to find an answer to the question: "Is parental migration a barrier on children's development, or contrary to this idea, children whose parents migrate are more likely to continue their studies?".

It would be inappropriate to admit that this article should be enough to get a general idea concerning my subject; to create an overall idea would require a much larger sample. I have chosen as an area of analysis the town Slănic Moldova, from Bacău county, Romania, because, during my experience of five years as a volunteer during summer camps, I observed student behaviour and the impact that parents` emigration has on their education. With a so starting point, my analysis looks much more easy to be done.

2. Methodology

The objective of this paper is to bring forward a method of investigation quite simple in form, but very complicated as substrate and analysis. The article itself will be specifically applied to an example area from Romania, Slănic Moldova,

a tourist resort in Bacau County, which is confronting with strong migration. For this analysis was necessary questioning students whose parents are emigrants and several students whose parents never migrated in order to be able to make a comparison. In this analysis it was particularly useful my four years experience as a teacher, during which I observed student behaviour and the impact that parents` emigration has on their education, which is why I have chosen this study.

This analysis follows the three stages of the research: bibliographic documentation about the theme, analysing and interpreting data from survey and preparation of the work itself. The most important tool is the questionnaire applied to the 80 students that provided crucial information concerning the problems raised by migration of parents. Of course the results cannot be generalized because the number of students surveyed is relatively small, but can be considered as a way of verifying the correctness of the questionnaire.

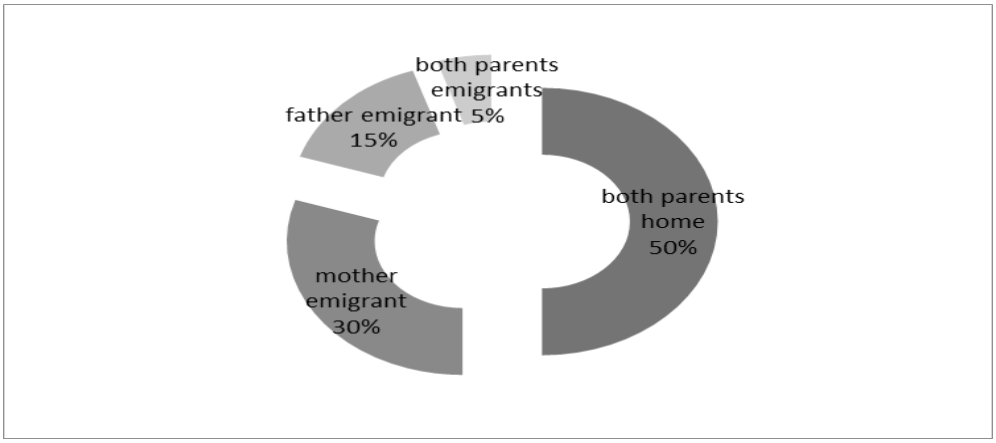
Selection of literature on the studied subject was relatively facilitated by the existence of a huge theoretical interest, but quite difficult if we consider the number of national studies. The internet was also a good source of theoretical concepts, developed by Romanian and foreign teachers.

3. Results and Discussions

As I have already mentioned, the sample is represented by 80 students aged between 10 and 19 years from the Slănic Moldova city, Bacau county, Romania. The questionnaire was applied to 40 girls and 40 boys. To note is that 20 girls and 20 boys had a parent or both parents abroad. Thus four had both parents emigrants, 12 had just the father emigrant, and 24 of them had the mother emigrant. Four of them had also brothers emigrants in order to work abroad.

In all 40 cases, the family remaining in the household receive remittances, which is noteworthy because these remittances can influence children's education and to what extent they will continue their studies or not. As stated by Kothari (2002), remittances can reduce the family budget constraints and instead may improve children's welfare. We must point out, in this regard, that the impact could be influenced by the amount and regularity of remittances. So if migrants send small amounts of money, they may not be sufficient to provide a significant income (Kothari 2002).

Figure 1. Home situation of children surveyed



Source: own calculation.

Migration of a household member can create changes in household dynamics. Giannelli and Mangiavacchi (2010) notes that, when older people are left responsible, decisions may reflect traditional values as child welfare may be a priority for the woman who runs the household. Migration of a family member also means that household responsibilities are shared between fewer adults, and therefore, older children in particular can become more involved.

Bryant (2005) stated that it is possible that children's ability to cope to be taken into account in the decision to migrate, and parents will migrate only if consider that the impact of their migration will not have a negative effect (Bryant, 2005). To what extent do parents realize the impact of their migration on children varies from one case to another. Poverty itself can be a major source of social problems, so that, although migration may induce some adverse, economic benefits can mean that children are less vulnerable.

I should mention that in the present study it is visible a special care given to female children. So, as we see, for girls is the mother who stays at home and the father who migrate. Looks like when the child is a boy, mother find it much easier to decide to migrate, sometimes not because of poverty, but the desire to have a better life. Boys are in the care of their father or a relative, in our cases. For girls, none of the respondents is in the care of the father, but in the care of the mother or a relative, who is most commonly an aunt. Taking this responsibility by grandparents is also an option, but note that not so common in this case. The reason is that parents think that taking this responsibility by a younger member is preferably, children may be easier under

control and also helped with their homework. Thus, we can say at first glance that indeed parents are aware of the negative impact that their departure may have on the children. Once they decide to go they also think about the possibilities they have to minimize the risk for those left behind to suffer from spacing of a family member.

Figure 2. Who is taking care of you?

Source: own calculation.

When questioned, those children living with their mother said that they are always supervised regarding the school situation, which is noted in the results obtained to school. Children whose mothers migrate have said they are supervised by grandmother or aunt, but father involvement is not negligible. In the case of children with both parents emigrated there were certain changes in behaviour, children becoming more irritable sometimes and tending to argue with colleagues; also they are more superficial to fulfil the tasks they have to perform in school. Of course, the causes can be multiple and cannot be generalized, but by averaging we can notice that educational outcomes are worse for those who have one parent emigrated than for those who live with both parents.

O'Connell Davidson and Farrow (2007) speak, in a study, about the existence of a psychosocial impact: because they are left behind, children can experience stress, loneliness, and loss of oversight and a model (O'Connell

Davidson and Farrow 2007). This is particularly relevant where there is parental migration, and in this sense, a comparison is often made concerning children who face other kind of parent's absence (Cortez 2007). Psychosocial effects are considered to be particularly pronounced in the case of maternal migration (Bryant, 2005), which seems likely in societies where mothers are the main caregivers of children. I believe that this is more about how easy or difficult can be for children to communicate with parents. Thus we cannot say that migration is the factor that disrupts family harmony and communication capacity given that both students whose parents migrate and those whose parents do not migrate said it is difficult to communicate with parents. It would be interesting here a deeper analysis to see causes, but this study does not allow us.

One of the most important implications of parent's migration is that the child does not live every day with that parent. Therefore, it may be overly simplistic to make a straight comparison between children with parents 'migrant' and 'non-migrant' when children with `non-migrants` parents cannot live with their parents. Several empirical studies have made this comparison. An example is the study of Creighton et al. (2009) in Mexico, comparing children with migrant parents with children whose fathers do not live in the household because of divorce and children whose fathers were living in the household. The study found that both cases of father absence have drawbacks on children and children of migrant parents are not significantly more or less likely to be in school than children whose fathers are absent because of divorce.

For this study the situation is different: parents' migration does not appear to influence in a particular way children's desire to continue or not their studies. Most of the questioned children said they want to continue their studies and wish to obtain an university degree. Five of those with both parents home said they do not want to pursue a college education while among those with parents emigrants these cases were only two, but should be taken into consideration that five of them stated they do not have an answer, which can create some balance.

Hanson and Woodruff (2003) studied Mexico and found children in migrant families having more studies than children in households without migrants. Other researchers have studied the impact of living in a house that receive remittances. In the present study we could observe a positive relationship between the fact of living in a house that receive remittances and education of children, as long as there is a responsible person who is watching over child's education. Calero, Bedi & Sparrow (2009) studied El Salvador

(2010) and observed the same positive relationship between remittances and education of children; the possibility of investing in children's education is more visible in the presence of remittances.

The study of and Mangiavacchi (2010), on Albania, showed that parents' migration have a negative impact on long-term education of children while Kuhn (2006) showed, in his study of Bangladesh, that migration of parents has a positive impact on children's education. This success or failure depends heavily on migration duration. Long-term absence of parents may be an indication of successful migration and the ability to send substantial remittances, which prevail the negative impact of their migration, says and Mangiavacchi. It should, however, be taken into account the impact of maternal migration because often long-term absence of the mother has a negative effect on children's school enrolment. The financial benefits of long-term maternal migration does not undo the negative social effects of maternal absence.

Regarding communication with parents, children whose parents migrate said that they often find it easy to communicate with them while in the case of those who have non-migrant parents were three children who said that they often found themselves in the difficulty of communicating with their parents. The real situation is a little bit different if we analyse children's responses to "List three problems faced by the family after the departure of one or both parents". Thus children who stated that they are not in the difficulty to communicate with their parents believe that among the problems encountered after leaving a family member are: poor communication, differences with parents, less attention from their parents. We can wonder whether this migration does not really have a negative influence on communication children - parents. Of course the problems mentioned by children from the application of this questionnaire are more and more serious, and among them mentioned should be: distance, parental divorce, feelings of loneliness, lack of family unity, etc.

Regarding the impact of parental migration on children, this study highlights several cases. First there are those families where children, more precisely ten girls, receive mothers` supervision and remittances sent by fathers. In these cases, children said they would continue their studies and in terms of educational outcomes it can be noticed the interest in school, seven from them had last semester averages values over 9.00[1]. With mother's presence and support, they said that father's migration affected very little or

[1] Grades are granted from 10.00 (ten) to 1.00 (one), where the lowest grade to pass an examination is 5.00 (five).

not at all. But would be interesting to see to what extent it would have been affected if the mothers were migrating.

Another situation noticed is when mother is the one who migrate and we talk here about sixteen boys and eight girls confronting with this situation. The money sent by those mothers are administer by father, an aunt or grandmother, but in all cases, under the mother's guidance. Regarding school performance, the difference is easily noticeable. Thus, both boys and girls had last semester averages values mostly between 7.00 and 9.00. They, and mostly the girls, believe that mother's migration has affected in a significant way all the family.

We can wonder whether mother's migration has more a negative effect than a positive one, on children, even if they receive remittances, which, as we have seen, are really invested in education and children's clothing, to a significant extent. Here is more about a competition, parents supporting children in an impressive competition in terms of clothing. There is also a certain financial motivation of children, parents giving certain benefits depending on the grades their children receive at school.

Cases where both parents migrate, but they decided to take the children with them in the country of destination, are included in this study only among boys, three of them saying that they live abroad with their parents. One of them even needed help to complete the questionnaire, finding very difficult to understand Romanian language.

As I said at the beginning, there are cases where children do not have any parent went abroad and they benefit from both parents. School results however seem influenced by education level of the parents and by the parental supervision over their children. It is not enough for a parent to be home, but it is necessary that parents pay attention to children's learning activities.

Thus, in this case, the idea of Tufiş that the level of education achieved by parents can affect child's education (Tufiş 2007) is confirmed. It would therefore be completely wrong to say that migration is the only one influencing children's education. In the present study, we noted that the emigration of parents, especially fathers, is rather a positive factor, combined with parent education brings positive results. It can really be added up the parents` experience; some facing a difficult situation want their children live better and they invest in children's education. Noteworthy is, as I said, the spirit of competition, parents investing, whether migrating or not, in their children, always having the desire for them to be the best.

4. Conclusions

There are many different situations from one case to another, as we have seen, and the factors that might affect children's education are different. Thus we cannot say that parents` migration influence children's education entirely and especially we cannot say that migration negatively or positively affect children's education. I noticed that migration is a factor influencing education, but there are also education level of parents, influence of other person, tendency to compete with others and standard of living.

As we have seen, children whose parents are away, especially the mother, have performed worse in school and are more confused about their future studies. This study does not show, without exception, that children with migrant parents are more likely to continue school than those whose parents never migrated. When mother migrates, benefits of remittances are less important than the negative impact of her absence on the child's education. Thus, as we have seen, there are numerous disadvantages of parents` migration and those that suffer the most are the children, who, even if receive financial support, feel keenly the absence of parents.

Cases are multiple and so different and trying to generalize would be a wrong way to conclude. We can thus only present different situations and problems involved, possibly making some grading, but recognizing that it is a rather complex issue that requires thorough research.

Regarding the question from which I started this study, I believe that, in children's education, parents' migration is not the deciding factor, but parental education and other factors such as competition and the tendency to compare with others, are alike easy to be taken into account. Remittances, as a result of migration, as peer influence and education of parents affects children's education clearly, but we cannot say, in this study, that one is more important than the other.

References

Bryant, J. (2005). *Children of International Migrants in Indonesia, Thailand and the Philippines: A Review of Evidence and Policies*. Innocenti Working Paper No. 2005–05.

Calero, C., Bedi, A., Sparrow, R. (2009). "Remittances, liquidity constraints and human capital investments in Ecuador". *World Development* 37: 1143–1154.

Creighton, M., Park, H., Teruel, G. (2009). "The role of migration and single motherhood in upper secondary education in Mexico". *Journal of Marriage and Family* 71: 1325–1339.

Giannelli, G., Mangiavacchi, L. (2010). "Children's schooling and parental migration: empirical evidence on the "left behind" generation in Albania". *LABOUR* 24: 76–92.

Hanson, G., Woodruff C,. (2003). *Emigration and Educational Attainment in Mexico.* University of California: California.

Iranzo, S., and G. Peri. (2009). "Migration and Trade: Theory with an Application to the Eastern–Western European Integration". *Journal of International Economics* 79 (1): 1–19.

Kothari, U. (2002). *Migration and Chronic Poverty. Institute for Development Policy and Management*. University of Manchester Working Paper 16.

Kugler, M., and Rapoport,H., (2007). "International Labor and Capital Flows: Complements or Substitutes?" *Economics Letters* 94 (2): 155–62.

O'Connell Davidson, J., Farrow, C. (2007). *Child Migration and the Construction of Vulnerability*. School of Sociology & Social Policy. Nottingham: University of Nottingham.

Rauch, J.E., Trinidade, V. (2002). "Ethnic Chinese Networks in International Trade". *Review of Economics and Statistics* 84 (1): 116–30**.**

Tufiş, P.A. (2007). "Influenţa plecării părinţilor în străinătate asupra rezultatelor şcolare". In *Efectele migrației: copiii rămași acasă.* Fundaţia Soros România, pp. 14-36. http://www.fundatia.ro/sites/default/files/Copii%20ramasi%20acasa.pdf. Accessed on August 15th, 2014.

Determinants of contraceptive choices in Malawi

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Abstract: This paper uses data from the 2000 and 2004 Malawi Demographic and Health Surveys to examine the factors explaining the contraceptive method choice in Malawi. The overall proportion of users relying on female sterilization rose from 1.7% to 7.5% whereas the proportion of users relying on injectables increased from 1.5% to 19.2% between 1992 and 2010. The proportion of married contraceptive users relying on the pill remained unchanged at 2% and the proportion using condom increased slightly from 1.6% to 2.7% over the same period. Use of traditional methods declined from 5.7% to 3.2%. Multinomial logistic regressions were used to study the determinants of the contraceptive method-choice. The results show that the major factors influencing the use of injectable, sterilisation, pills, condoms and other methods are age, partners' approval of family planning, family planning discussion with partner, number of living children, work status, education and visit to a health centre. As a policy measure, information, education and communication programmes on family planning should be intensified, particularly in rural areas and targeting men.

Keywords: Malawi, Contraceptive use, logistic regression, socio-economic, Demographic and Health Survey

1. Introduction

Malawi has experienced a dramatic increase in contraceptive use, unprecedented for a Sub-Saharan African country with poor social and economic conditions. Contraceptive prevalence rate (CPR) has increased from 13% in 1992 to 46% in 2010 (Malawi Government 2002, 2011). Such a high contraceptive prevalence is surprising given that Malawi is a relatively new comer in the area of family planning. In sub-Saharan Africa the national family planning programme was introduced in the late 1960s in Kenya, early 1970s in Ghana and mid 1970s in South Africa (Chimbwete, Watkins and Zulu 2005). The increase in CPR in Malawi is recognised as a success story of the Family Planning Programme (Solo, Jacobstein and Malema 2005).

The increase in contraceptive use has not been accompanied by a proportional decline in fertility. Total Fertility Rate (TFR) has declined from 6.7 to 5.8 children per woman over the same period (Malawi Government 1994b, 2011).

The persistence of high fertility implies that the country still has a high population growth rate and needs to continue strengthening its family planning programme in order to reduce fertility to manageable levels.

One factor that could lead to sustained fertility decline is strengthening the family planning services by broadening the contraceptive options offered to the vast majority of the people especially those residing in rural and undeserved areas. Since individual contraceptive preferences, beliefs and needs vary within populations, family planning programmes should accommodate the widest possible range of method preferences among the potential contraceptive users (Magadi and Curtis 2003). This does not necessarily mean that every family planning service would have to provide all methods, but the overall programme efforts should be sufficient so that the potential users have reasonable, if not absolutely equal, access to a variety of methods (Bruce 1990).

While the programmatic and socio-economic determinants of contraceptive use at the national and regional levels have been studied in Malawi Chintsanya 2013, Palamuleni 2013), very little is known about the determinants of contraceptive method choice or method mix. Understanding contraceptive method mix is important for three reasons. First, given that contraceptive preferences, beliefs, and needs vary from one individual to another, it is important for family planning programmes to provide as many methods as possible in order to accommodate the widest possible range of method preferences among the potential contraceptive users. As such understanding dynamics of contraceptive method mix is key to helping policy makers, program managers and donor agencies in meeting current contraceptive demands (Seiber, Bertrand and Sullivan 2007). Second, studies indicate that increasing the choice of contraceptive methods increases the overall contraceptive prevalence (Magadi and Curtis 2003). Third, contraceptive method mix is also an important element of providing quality family planning services and goes along way in fulfilling women's reproductive rights (Bruce 1990, Diaz et al. 1999). To increase prevailing contraceptive prevalence, family planning programmes should offer a variety of safe, effective, acceptable, and affordable contraceptive methods to help women prevent both unwanted pregnancies and sexually transmitted diseases (STDs) and achieve their reproductive goals. Therefore, a proper understanding of factors associated with contraceptive method choice is not only important for improvements in quality of care and program planning and management.

2. Problem Statement

There are a number of factors that necessitated that a study of this nature be conducted. First, although a number of studies have explored various factors affecting contraceptive use in Malawi (Kalipeni and Zulu 1993, Kishindo 1995, Kalanda 2010, Chintsanya 2013, Palamuleni 2013), no study has looked at the determinants of each individual method of contraception. Second, given the dramatic increase in contraceptive use one expects enormous decline in fertility. However despite the six fold increase in CPR, TFR only marginally declined from 6.2 to 5.8 children per woman over the period 1992 to 2010. Several things may be said about the absence of vivid decline in fertility in the face of theatrical increase in contraceptive use. This may be indicative that women are using family planning methods to space rather than to stop childbearing. It may also be suggestive that women are using less effective methods. Studies indicate that the use of more effective methods, even by a smaller proportion of eligible couples, can produce a greater decline in fertility than can the use of less effective methods by a larger proportion of couples (Shah et al. 1998).

Third, a proper understanding of factors associated with contraceptive method choice is not only important for improvements in quality of care and program planning and management. Although in Malawi a "cafeteria approach" is implemented to provide clients with a wide range of contraceptive methods, the most commonly used method is injectable. Therefore there is need to understand the factors influencing the use of different contraceptive methods in order to come up with policies and strategies to provide a broad range of appropriate methods to the population. This is in line with the resolution that was passed at the International Conference on Population and Development (ICPD) in 1994 that recommended that countries should "Recognise that appropriate methods for couples and individuals vary according to their age, parity, family size preference and other factors, and ensure that women and men have information and access to the widest possible range of safe and effective family planning methods in order to enable them to exercise free and informed choice" (United Nations 1996).

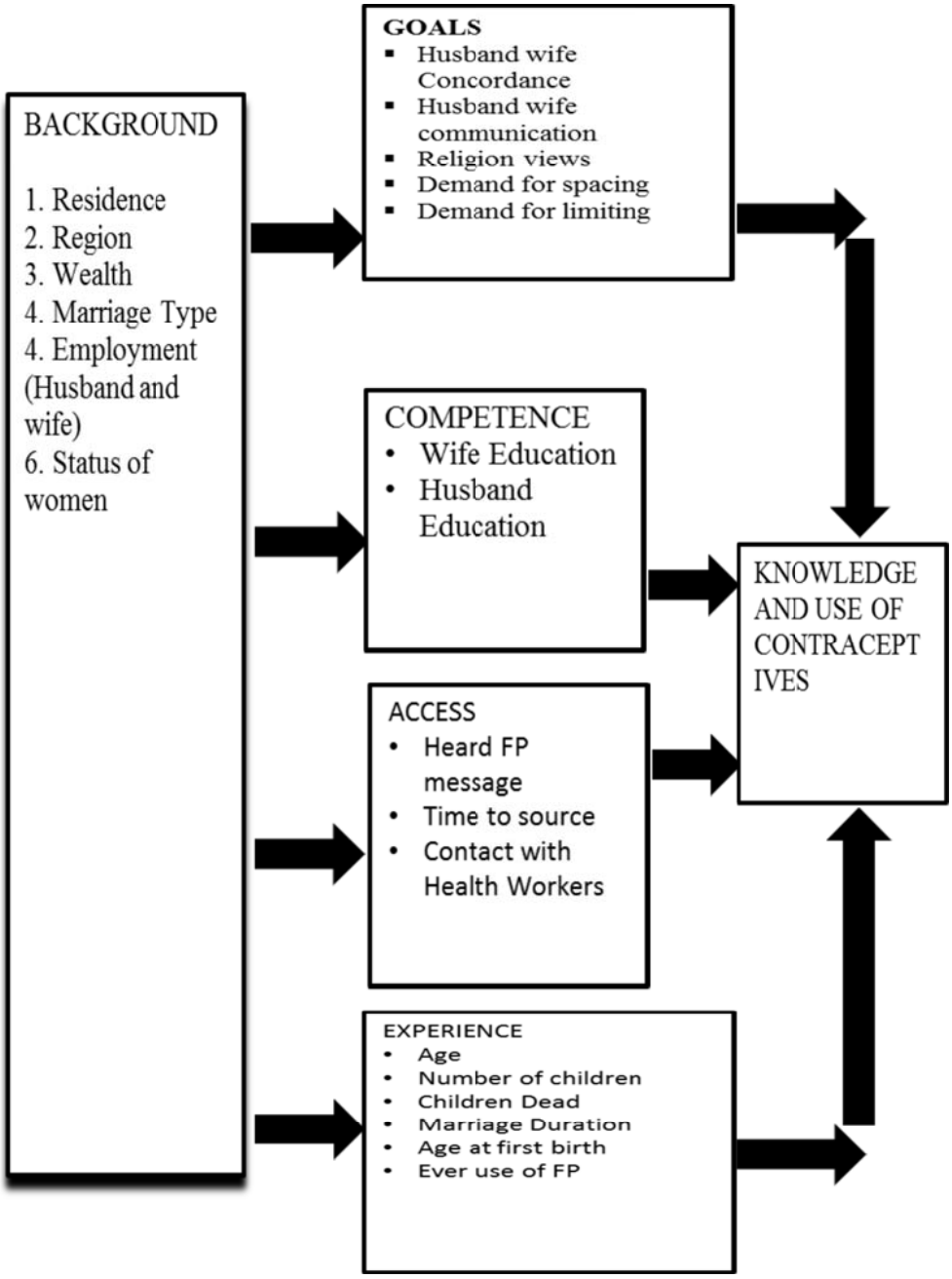
3. Objectives

Given the issues described above, the objectives of this study are two-fold: (a) to examine the contraceptive method mix during the twelve year period 1992-2004 and (b) to establish the determinants of contraceptive method choice.

3.1. Conceptual and theoretical frameworks

This paper uses the conceptual framework based on the Bulatao's model of method choice (Bulatao 1989). This framework has been widely used and modified by other researchers (Mannan 2002). In its original form the model outlines four dimensions of the use of contraception: (1) contraceptive goals, (2) contraceptive competence, (3) contraceptive evaluation and (4) contraceptive access. Contraceptive goals involve fertility preferences that couples may or may not seek to achieve through the use of contraception. Contraceptive competence is the ability to use any specific method effectively. Contraceptive evaluation considers broad life experiences (e.g. number of living children) that shape the assessment of the contraceptive use experience. Contraceptive access is the availability and affordability of contraceptive methods. Background characteristics influence each dimension of choice. Figure 1 depicts the conceptual model and a list of independent variables included under each dimension. This framework was used to investigate the factors influencing contraceptive method choice in Malawi.

Figure 1. Conceptual Framework



4. Determinants of contraceptive use

Lots of empirical studies concerning the determinants of contraceptive use and method mix are available in the literature. The section reviews the literature on the determinants of contraceptive use focus on studies conducted in developing countries. The aim is to present the theoretical framework that is used to guide the analysis conducted in this paper. It must be borne in mind that these factors are inter-related, complex and vary from one society to another.

4.1. Background

Various studies have shown that contraceptive choices are influenced by background variables (Cohen 2000, Chintsanya 2013, Palamuleni 2013). Some of the background variables that have been mentioned in literature include type of place of residence, region of residence, wealth status, work status, type of marriage, status of women, just to mention a few.

Use of family planning is higher in urban than rural areas. Urban-rural difference in the adoption of contraception is the highest in SSA, where the rate is more than twice as high as among urban than among rural in all surveyed countries (Curtis and Katherine 1996).

Contraceptive use also varies by region. For example studies in Nigeria indicate that contraceptive use has generally been higher in the south, especially south-west, than in the north (Feyisetan and Bankole 2002). Regional differentials in contraceptive use have also been observed in Kenya with North Eastern Province observed to have has the lowest contraceptive prevalence rate (Anguko 2014). The observed variation in contraceptive use by place of residence may be attributed to differences in the availability of such social services as education, information about family planning, access to family planning and health care services.

Religious affiliation also affects contraceptive use (Ullah and Chakraborty 1996, Yeatman and Trinitapoli 2008, Gregson *et. al.* 1999, Gyimah *et. al.* 2008). Religions differ in their stand on fertility regulation and among the major world religions, Catholicism and Islam are widely regarded as pronatalist in their ideology. However, the relationship between religion and contraceptive use is much more complex than expected. In one study conducted in India, it was discovered that even though the average number of children born to a Muslim or Christian couple is higher than that born to a Hindu couple, the acceptance of sterilization to limit family size was greater among Muslims and Christians than Hindus (Ullah and Chakraborty 1996). A study of contraceptive use in Bangladesh found that Muslim women were less likely to use contraception than Hindu women (Ullah and Chakraborty 1996). The

strength of one's religiosity or degree of one's adherence to the norms of a given religion may exert an influence on ones' mode of life including contraceptive use.

The work status of women has also been linked to knowledge and use of contraceptives. Women who work outside the home have higher rate of use than women who do not work outside home (housewives) (Robey et. al. 1992, Hogan et. al. 1999). Working women, particularly, those who earn cash incomes are assumed to have greater control over household decisions and increased awareness of the world outside home. Consequently, they have more control over reproductive decisions (Hogan *et. al.* 1999). Some studies also add that paid work also provides alternative satisfactions for women, which may complete with bearing and rearing children and may promote contraceptive use.

Studies indicate that women in a polygamous marriage are less likely to use contraceptives than women who live in monogamous marriages (Audu et. al. 2008). A lower frequency of intercourse for women in polygamous marriages can discourage them from using contraception. Also, these women are likely to adhere to traditional values and customs that encourage large families.

5. Contraceptive Goals

One of the accepted international norms, as declared in major human rights treaties state that:

> "*All persons have the right to decide freely and responsibly the number and spacing of their children and to have access to the information, education and means to enable them to exercise this right'. This assumes that each and every individual has his or her individual fertility goals that one would like to achieve and one uses contraception in order to achieve these goals. Since it takes a man and woman to have children a couple's goals have to be taken into account (*Bankole and Singh 1998).
>
> *"Issues that have received attention among researchers included agreements and discrepancies among couples in terms of fertility desires and contraceptive use"* (Diro and Mesganaw 2013, Takruri et. al. 2013).

A study in Turkey found that discrepancies between spouse reports were less significant in Turkey than in most developing countries with DHS data, but the differences were not inconsequential to explaining how spousal attitudes and preferences influence contraceptive use (Kulczycki 2008). In addition, no

evidence was found associating interspousal power differentials with method use (Kulczycki 2008).

Demographers and program managers now realize that programs focused exclusively on either men or women may fail in their purpose because most sexual, family planning, and childbearing decisions are made or may potentially (and perhaps ideally) be made by both partners together. The ICPD document recognizes the couple as a unit by referring frequently to 'couples and individuals' and further states that "*the aim of family planning programmes must be to enable couples and individuals to decide freely and responsibly on the number and spacing of their children*…."(United Nations 1996). Available studies show that in many developing countries males often dominate when important decisions are taken in the family, such as on reproduction, family size, and contraceptive use (Dodoo 1995).

Traditional African society is constructed in such a way that high fertility and large surviving families have usually been economically and socially rewarding in contrast to modern societies. In this context African societies may offer resistance to contraceptive use. Generally speaking, Sub-Saharan Africa is known for low literacy rate, poor access to information, poor health care and other infrastructure services. All these factors have strong correlation with family planning program.

Individual's awareness for family planning is among the important variables in influencing the use of contraceptives. Studies have documented that some of the obstacles individuals or couples who want to delay or avoid a birth include lack of knowledge about methods and how to use or where to obtain services (Robey et.al., 1992). Thus knowing at least one method of contraceptives is an essential pre-condition for the practice of contraception.

In addition to the above-mentioned factors that are known to affect the contraception behaviour of women, various research findings show that a woman may not use contraceptives because of disapproval of the husband, fear of side effects, unavailability and in accessibility of contraceptives (Robey et. al. 1992). Husbands' approval is also of paramount importance in the adoption of contraceptive use (Nwankwo and Ogueri 2006). Especially in traditional societies, where issues related to procreation are hardly discussed by marital partners, husbands are the primary decision makers in reproductive matters. Furthermore studies have shown that contraceptive use is higher in societies where husband and wife discuss about family planning (Mostafa Kamal 2012).

6. Competence

It has also been hypothesized that there is a positive correlation between contraceptive use and level of education (Feyisetan 2000, Hogan et. al. 1999; Saleem and Martin 2005, Rutherford et. al 1989). Other things being equal the higher the level of education the higher contraceptive use is expected to be. Although both the wives' and husbands' education is important there appears to be a consensus that the former is more important than the latter.

One study from Ghana showed that husband's education affected wife's attitudes towards contraceptives but wife's education had no influence on husband's attitudes. Wives of more educated husbands were more likely to approve of family planning than wives of less educated husbands, but husbands of more educated wives were not more likely to approve of family planning than husbands of less educated wives (Ezeh 1993).

7. Experience

Different studies have identified such demographic factors as age of women, age at first birth, age at first sex, marital duration, number of living children, desired family size and experience of child death as major factors that influence contraceptive use (Robey et al. 1992). Contraceptive use is lowest among young women, reaches a peak among women in their thirties and declines among older women (Robey et al. 1992). This is indicative of a high desire for child bearing among young women, and a high growing interest of spacing births among women in their thirties. Percentage of users declines at older ages of reproduction due to the fact that older women are not at a high risk of pregnancy. Studies have shown that use of contraception increases with parity of woman up to the third or fourth child and then decline thereafter (Dang 1995, Shah et al. 1998, Mamdani et al. 1998). This is partly because, many women have a desire to space births at early reproductive age and seek to stop after the desired family size has been achieved.

Survival status of children is likely to affect the practice of contraception. Parents who have experienced a death of a child may be less likely to use contraceptives than others of the same parity (Shah et al. 1998, Mamdani et al. 1998, Adanu et al. 2009, Black et al 2009). This may arise from the desire to replace a dead child or to insure against childlessness contributes to high fertility.

8. Access

It often stated that a number of individuals who would like to use contraceptives are unable to do because of inability to access contraception (Bersamin et al. 2011). The inability to access contraception vary from one area to another and could be as a result of lack of knowledge, lack of services which could be due to the fact that health services are far or poor quality services. Political factors may also limit access to family planning as was the case in Malawi between 1967 and 1994 when family planning was banned.

Another factor that influence contraceptive use and choice of contraceptive method is interaction with health workers (Blake and Babalola, 2002, Nalwadda et al. 2010, Kabagenyi et al. 2014). Health workers Provider factors are equally important in influencing contraceptive use. For instance, the facilitation of making informed choices in family planning is associated with better satisfaction and compliance with the method. One consequence is fewer failures (Frost et al. 2004, Nalwadda et al. 2010, Kabagenyi et al. 2014).

Health care providers are an important source of information about family planning and their opinions about specific methods can also influence couple choices (Dehlendorf, Ruskin, Steinauer 2010, Stanback and Twum-Baah 2001). To promote use of modern contraceptives in formerly pronatalist countries like Albania, communication campaigns that involved training health care providers were used to assure relevant populations about the safety of modern contraceptives Nalwadda et al. 2010, Kabagenyi et al. 2014).

In other instances, engaging volunteers to use interpersonal communication through household visits and group discussions has been used to disseminate accurate information on family planning methods in countries such as Guinea and Nepal (Sharan 2002, Blake and Babalola 2002)

9. Data and Methods

9.1. Sources of Data

The study is based on the analysis of data obtained from the 2000 and 2004 Malawi Demographic and Health surveys (Malawi Government 2002, 2006). Both surveys were nationally representative surveys designed to provide information on levels and trends in fertility, family planning knowledge and use, and early childhood mortality and morbidity in Malawi. Full details of the sampling methodology employed in collecting the data are described in the appropriate survey reports (Malawi Government 2002, 2006).

The MDHSs involved the use of three basic questionnaires: household, male and female questionnaires. The 2000 MDHS collected data from 13220 women aged 15-49 whereas the 2004 MDHS collected data from 11698

women of the same age range. The analyses in this paper will use data from the individual women questionnaire only. The study population comprised of 9361 and 8385 currently married women in 2000 and 2004 respectively. Currently married included women who reported that they were married or living together at the time of the survey. Women in the child bearing age groups were asked questions about their background characteristics, reproductive history, knowledge and practice of family planning, breast-feeding practices, marriage, fertility preferences etc., as well as on her husband's background characteristics.

9. 2. Methods

Two approaches were used in the analysis. Descriptive univariate analyses were performed to inspect the frequency distributions of the variables. Multinomial logistic regression was used to examine the impact of social and economic factors on contraceptive use in Malawi.

9.2.1. Description of Variables

The dependent variable for this analysis, contraceptive method choice, was obtained from a series of questions in the section on contraception in the woman's questionnaire. Women were asked the question: Are you currently doing something or using any method of contraception to delay or avoid getting pregnant? If a woman reported that she was using any method, she was further asked to mention the method she is currently using. The responses included both modern and traditional methods. But in this study, the dependent variable was categorised into six groups as follows: no use of contraception, pills, injections, condom, female sterilisation and other methods.

Since the dependent variable has more than two categories multinomial logistic regression is used. The multinomial regression model allows for multiple outcomes that are nominal in nature, rather than ranked in some meaningful ways. The multinomial regression model breaks the regression up into a series of binary regressions, comparing each group to a baseline group. No use of contraception is set to be the reference group. Multinomial regression will assess the odds of use of pills, injections, condom, female sterilisation and other methods versus no use of contraception. The general model for multinomial regression is denoted by:

$$\ln\left[\frac{p_g}{p_1}\right] = \ln\left|\frac{P_g}{P_1}\right| + \mathbf{B}_{g1} + \mathbf{B}_{g2} + \ldots + \mathbf{B}_{gz}$$

$$\ln\left[\frac{p_g}{p_1}\right] = \ln\left[\frac{P_g}{P_1}\right] + \chi\beta$$

Where p_g is the probability that an individual with values X_1, X_2 , ..., X_p is in group g, Pg is the prior probabilities of group membership and βgi is the regression coefficients that are to be estimated from the data. Group one is the reference group. The regression coefficients β for the reference group are set to zero.

The independent variables were selected for inclusion in the analysis based on their significance in previous studies of contraceptive behaviour or on their hypothesized association with contraceptive use (Adanu et al 2009, Palamuleni 2013, Mostafa Kamal and Islam 2010). All the independent variables were obtained from the various sections on the women questionnaire. To make analysis and interpretation simpler and more meaningful, some variables were regrouped from their original categories in the dataset.

10. Study Limitation

Although our interest is in exploring the relationship between contraceptive use and socio-economic factors, our study has some limitations. First, the reporting of current contraceptive use might be inaccurate. This might arise from the fact that in traditional societies any discussion on sex and sex-related subjects is regarded as a taboo. This challenge might be more severe in remote rural areas where literacy levels are low and health centres that are a source of family planning may not be available. Also, in such societies use of contraceptives may be regarded being promiscuous, loose and immoral. Second, our study includes only currently married women. This may bias downward contraceptive prevalence because women who have never married or formerly married were excluded. Third, the study includes only married women. As such there might be other relevant factors influencing contraceptive use among men and never married women.

Lastly, a detailed examination of contraceptive method choice requires an understanding of the cultural changes in a society. In most national datasets, including MDHSs, cultural variables are not available since the focus is on structural variables. Data on cultural change are typically obtained from attitudinal studies. Shifts in people's attitudes on different issues generally reflect changes in cultural norms and values. However, DHSs, like many

datasets does not as yet collect data on people's attitudes. This prevented us from understanding the cultural component of contraceptive use. Despite these limitations, we hope this study will shed some light on the factors influencing contraceptive use in Malawi.

11. Results

11. 1. Characteristics of the Respondents

Table 1 gives the summary statistics of the study population. The percentage distribution of the study population increases from age group 15-19 to a local maximum in age group 20-24 after which it steadily declines reaching a minimum of in age group 45-49. The majority of the study population were below the age 35 years (around 71%) and the mean age was 30 years. The majority of the respondents lived in rural areas (80% in 2000 and 88% in 2004). The majority of the respondents were in the Southern Region (49% in 2000 and 51% in 2004), followed by Central Region and then Northern Region. The majority of the study population have primary education (61% in 2000 and 62% in 2004), followed by no education (30% in 2000 and 28% in 2004). Women with secondary and higher education comprised of 8.6% in 2000 and 10.6% in 2004. The mean number of children ever born by women in both years was 2.9 whereas the mean number of children lining was 2.6. Nearly 60% of the study population were working in both datasets and around 2.0% (2.0% in 2000 and 2.5% in 2004) of the study population could be categorised as rich. More than half of the women in the study population were poor (57.3 in 2000 and 53.4% in 2004). More than 80% of the women were Christians, 16% Muslims and the remaining 2% belonged to other religious groups. Knowledge of family planning methods among married women is universal and 92% of the women and around 80% of their spouses approved the use of family planning. Discussion about family planning between husbands and their wives has increased from 41% in 2000 to 70% in 2004.

Table 1. Socio-economic characteristics of currently married women and percentage using contraception: Malawi, 2000 and 2004

	2000		2004	
	N	%	N	%
Age of respondent				
15-19	948	10.1	819	9.8
20-24	2351	25.1	2251	26.8
25-29	2041	21.8	1818	21.7
30-34	1308	14.0	1242	14.8
35-39	1181	12.6	928	11.1
40-44	837	8.9	754	9.0
45-49	695	7.4	573	6.8
Region				
Northern Region	1564	16.7	1109	13.2
Central Region	3287	35.1	3056	36.4
Southern Region	4510	48.2	4220	50.3
Place of residence				
Urban	1853	19.8	1063	12.7
Rural	7508	80.2	7322	87.3
Education				
None	2779	29.7	2234	26.6
Primary	5776	61.7	5261	62.7
Secondary & higher	806	8.6	890	10.6
No. of children ever born				
0	723	7.7	626	7.5
1-2	3191	34.1	2807	33.5
3-4	2355	25.2	2268	27.0
5+	3092	33.0	2684	32.0
No. of living children				
0	1020	10.9	816	9.7
1-2	3834	41.0	3277	39.1
3-4	2397	25,6	2373	28.3
5+	2110	22.5	1919	22.9

	2000		2004	
	N	%	N	%
Husband approval of family planning (FP)				
Disapprove	1595	18.9	1288	16.7
Approve	6863	81.1	6409	83.3
Respondents approval of FP				
Disapprove	598	6.5	662	8.0
Approve	8652	93.5	7639	92.0
Discussion of FP				
Never	4253	59.3	2439	29.2
Once or twice	1484	20.7	2944	35.2
More than twice	1437	20.0	2976	35.6
Couple desire of children				
Both want the same	2787	29.8	4115	69.6
Husband wants more	3310	35.4	1133	19.2
Husband	3254	34.8	667	11.3
Religion				
Christian	7786	83.2	6917	82.5
Muslim	1425	15.2	1359	16.2
No Religion	147	1.6	69	0.8
Fertility preference				
Wants more	5076	58.8	4528	58.2
Undecided	148	1.7	333	4.3
Wants no more	3412	39.5	2919	37.5
Work Status				
Not Working	3808	40.7	3424	40.9
Working	5550	59.3	4955	59.1
Wealth status				
Poor	5195	57.3	4414	53.4
Medium	3683	40.6	3605	43.8
Rich (ref.)	185	2.0	204	2.5
Child dead				
No	5341	57.1	5254	62.7
Yes (ref.)	4020	42.9	3131	37.3

	2000		2004	
	N	%	N	%
Heard FP on radio				
No	2755	29.4	2402	28.7
Yes (ref.)	6606	70.6	5981	71.3
Heard FP on TV				
No	8889	95.0	7854	93.7
Yes (ref.)	470	5.0	529	6.3
Heard FP Newspaper				
No	7795	83.3	7421	88.5
Yes (ref.)	1558	16.7	960	11.5
Visited by FP Worker				
No	8063	86.1	7355	87.8
Yes (ref.)	1297	13.9	1026	12.2
Visited health facility				
No	3454	36.9	3269	39.0
Yes (ref.)	5906	63.1	5115	61
Total	**9661**	**100.0**	**8385**	**100.0**

12. Contraceptive Method Mix

Table 2 shows contraceptive prevalence by method for the period under review. In 2010 injectables are the most popular method among the currently married women in Malawi. Injectables alone account nearly half of all the contraceptive use in the country. The second most popular method is female sterilisation which accounts for nearly half of all contraceptive use. Other modern methods (male condom and pill) account for most of the remainder, whereas only 9 percent of women rely on traditional methods. This mix of methods has changed over time. The 1992 MDHS indicate that the commonly used methods were pill, withdrawal, abstinence, other and condoms. In a way these statistics imply that apart from pills and condoms most users of family planning were using tradition methods. This is not surprising given that at that time government was just supporting child spacing programme. The notion of family planning became acceptable in 1994 following the approval of the population policy (Malawi Government 1994a).

Table 2. Contraceptive method mix, Malawi, 1992-2004

	1992	1996	2000	2004	2010
Female Sterilization	1.7	2.3	3.8	4.8	7.5
Pill	2.2	2.7	2.3	1.5	1.9
IUD	0.3	0.3	0.1	0.0	0.2
Injectables	1.5	4.9	13.0	13.9	19.2
Implants	0.0	0.0	0.1	0.4	1.1
Male Condom	1.6	2.0	1.9	1.7	2.7
Traditional	0.0	0.0	0.0	0.0	
Rhythm	2.2	0.0	0.7	0.4	0.6
Withdrawal	1.5	1.4	1.1	1.5	1.2
Other	2.0	1.6	1.6	1.3	0.9
	13.0	15.2	24.6	25.5	35.3

13. Determinants of contraceptive method choice

Table 3 presents the results of multinomial logistic regression analyses o contraceptive method choice in Malawi. All the variables that were found to be significant factors in influencing contraceptive use in an earlier study (Palamuleni 2013) were entered in the multivariate treatment to examine whether they have net effects on method choice. The sections below present the factors influencing contraceptive use of four major contraceptive methods in Malawi (pills, injections, condom, female sterilisation) and other methods.

Pill: Among pill users, age, region, wealth status, education, visited by family planning worker, number of living children, husbands' approval and discussion with partner were found to have a significant effect on contraceptive method choice.

Compared with women aged 45-49, women aged 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 were 1.52, 2.2, 3.2, 2.5, 2.6 and 2.4 times more likely to use contraceptive pill. The odds ratio increased with age up to 25-29 and declined thereafter. The women aged less than 25 years are relatively young, mostly newly-wed and have low parity. As a result, they are reluctant to use contraceptive methods in the early years of their reproductive age and in most cases using them to space their births. The reduced odds ratio for the women aged 30 years and above indicates decreasing need for contraceptives.

Compared to women residing in Southern Region, women in the Central Region were 1.64 times less likely to use pills. Women in the Northern Region were 1.06 times less likely to use pills as compared to women in the Southern Region. This indicates that use of pills is highest in the Southern Region, followed by Northern Region and lowest in the Central Region.

Use of the contraceptive pills varied by wealth status of the women. Poor women were 2.23 times less likely to use pills as compared to rich women. Women in the middle status category were 1.68 23 times less likely to use pills as compared to rich women. The results of poor women are statistically significant.

Use of pill also varied by educational level of the women. Women who had no formal education were 2.62 times less likely to use pills compared to women who had attained secondary or higher level of education whereas women who had primary education were 1.50 times less likely to use pills compared to women who had attained secondary or higher level of education.

Another variable that greatly influence the use of pills in Malawi is approval by husband. Women whose husbands disapproved the use of pills were 3.27 times less likely to use pills compared to women whose husbands approve.

Women who have never discussed family planning with their husbands were 4.09 times less likely to use pills compared to women who have discussed family planning with their husbands more than twice. Women who have discussed family planning with their husbands once or twice were 1.61 times less likely to use pills compared to women who have discussed family planning with their husbands more than twice.

Use of pills is also influenced by whether or not the respondent was visited by a health worker. Women who were not visited by a health worker were 1.55 times less likely to use pills compared to women who were visited by a health worker.

Use of contraceptive pills is also influenced by the number of living children. Women who have no living children were 8.46 times less likely to use pills compared to women with five or more children. Women with 1-2 living children were 1.77 times less likely to use pills compared to women with five or more children. Women with 3-4 living children were 1.53 times less likely to use pills compared to women with five or more children. The odds ratio increase with the increasing number of living children suggesting that use of contraceptive pill increases as the number of living children increase.

Injection: Among injection users, age, region, rural-urban residence, work status, education, heard family planning on TV, number of living children, husbands approval, respondent approval and discussion with partner were found to have a significant effect on contraceptive method choice.

Compared with women aged 45-49, women aged 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 were 3.28, 4.25, 3.4, 2.3, 1.8 and 1.5 and 2.4 times more likely to use injection. The reduced odds ratio for the women aged 25 years

and above indicates decreasing need for injection. The increased odds for women aged 20 to 30 is partly attributed to the fact that most of them had already achieved their desired family size and had taken the decision to stop childbearing or space the next childbirth. The women aged less than 25 years are relatively younger, newly-wed, and have lower parity. As a result, they are reluctant to use contraceptive methods in the early years of their reproductive age.

Compared to women residing in Southern Region, women in the Central Region were 1.23 times less likely to use injections. Women in the Northern Region were 2.21 times less likely to use inject as compared to women in the Southern Region. This indicates that use of injection is highest in the Southern Region, followed by Central Region and lowest in the Northern Region.

Women in urban areas are 1.49 times more likely to use injection as compared to women in the rural areas. Women who are not working are 1.19 times less likely to use injection as compared to women who are working.

Use of injection also varied by educational level of the women. Women who had no formal education were 1.54 times less likely to use injection compared to women who had attained secondary or higher level of education whereas women who had primary education were 1.62 times less likely to use injection compared to women who had attained secondary or higher level of education.

Another variable that greatly influence the use of injection in Malawi is approval by both respondent and husband. Women who disapproved the use of injection were 3.75 times less likely to use injection compared to women who approved family planning. Women whose husbands disapproved the use of pills were 3.14 times less likely to use injection compared to women whose husbands approve.

Women who have never discussed family planning with their husbands were 4.24 times less likely to use injection compared to women who have discussed family planning with their husbands more than twice. Women who have discussed family planning with their husbands once or twice were 1.58 times less likely to use pills compared to women who have discussed family planning with their husbands more than twice.

Use of injection is also influenced by whether or not the respondent visited a health facility in the last twelve months. Women who had not visited a health facility in the last 12 months were 1.32 times less likely to use injection compared to women who have visited a health facility.

Use of injection is also influenced by the number of living children. Women who have no living children were 197.08 times less likely to use injection compared to women with five or more children. Women with 1-2 living children were 4.05 times less likely to use pills compared to women with five or more children. Women with 3-4 living children were 1.85 times less likely to use injections compared to women with five or more children. The odds ratio increase with the increasing number of living children suggesting that use of injection increases as the number of living children increase.

Condom: Among condom users, age, region, wealth status, number of living children, husbands' approval, respondent approval and discussion with partner were found to have a significant effect on contraceptive method choice.

Compared with women aged 45-49, women aged 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 were 7.5, 5.2, 3.3, 1.7, 1.5 and 1.00 times more likely to use condom. The declining odds ratio by age indicates decreased condom use as women get older.

Compared to women residing in Southern Region, women in the Northern Region were 3.69 times more likely to use condoms. The results for Northern Region are statistically significant. Women in the Central Region were 1.04 times more likely to use condoms as compared to women in the Southern Region. This indicates that use of condom is highest in the Northern Region, followed by Central Region and lowest in the Southern Region.

Use of condoms varied by wealth status. Poor women were 3.63 times less likely to use condoms as compared to rich women. Women whose wealth status could be described as middle were 3.94 times less likely to use condoms as compared to rich women.

Another variable that greatly influence the use of condom in Malawi is approval by husband. Women whose husbands disapproved the use of family planning were 6.86 times less likely to use condoms compared to women whose husband approved family planning.

Women who have never discussed family planning with their husbands were 9.50 times less likely to use condoms compared to women who have discussed family planning with their husbands more than twice. Women who have discussed family planning with their husbands once or twice were 2.03 times less likely to use condoms compared to women who have discussed family planning with their husbands more than twice.

Use of condom is also influenced by the number of living children. Women who have no living children were 8.8 times less likely to use condoms compared to women with five or more children. Women with 1-2 living

children were 2.11 times less likely to use condoms compared to women with five or more children. Women with 3-4 living children were 2.03 times less likely to use injections compared to women with five or more children. The odds ratio increase with the increasing number of living children suggesting that use of condo increases as the number of living children increase.

Female sterilisation: Among TL users, age, rural-urban residence, work status, wealth status, education, heard family planning on radio, number of living children, husbands approval and discussion with partner were found to have a significant effect on contraceptive method choice.

Compared with women aged 45-49, women aged 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 were 7.5, 5.2, 3.3, 1.7, 1.5 and 1.00 times more likely to use condom. The declining odds ratio by age indicates decreased condom use as women get older.

Women residing in urban areas were 1.64 times more likely to use female sterilisation that women residing in rural areas. Women who are not working are 1.32 less likely to be sterilised than women who are working. Female sterilisation also varied by wealth status. Poor women were 2.03 times less likely to be sterilised than rich women. Women whose wealth status could be described as middle were 1.68 times less likely to be sterile as compared to rich women. Female sterilisation also varied by educational level of the women. Women who had no formal education were 2.39 times less likely to be sterilised compared to women who had attained secondary or higher level of education whereas women who had primary education were 1.51 times less likely to use injection compared to women who had attained secondary or higher level of education.

Another variable that greatly influence the use of female sterilization in Malawi is approval by husband. Women whose husbands disapproved the use of family planning were 2.89 times less likely to use condoms compared to women whose husband approved family planning.

Use of sterilisation is also influenced by whether or not the respondent heard family planning on radio in the past. Women who had not heard family planning on the radio were 1.39 times less likely to be sterilised compared to women who have heard family planning on the radio.

Use of female sterilisation is also influenced by the number of living children. Women who have no living children were 7.96 times less likely to be sterilised compared to women with five or more children. Women with 1-2 living children were 5.70 times less likely to be sterilised compared to women with five or more children. Women with 3-4 living children were 2.00 times less likely to be sterilised compared to women with five or more children. The

odds ratio increase with the increasing number of living children suggesting that female sterilisation increases as the number of living children increase.

Other methods: Among users of other methods, region, rural-urban residence, number of living children, husbands approval, respondent approval and discussion with partner were found to have a significant effect on contraceptive method choice.

Compared to women residing in Southern Region, women in the Northern Region were 2.63 times more likely to use other methods. The results for Northern Region are statistically significant. Women in the Central Region were 1.16 times more likely to use condoms as compared to women in the Southern Region. This indicates that use of other methods is highest in the Northern Region, followed by Central Region and lowest in the Southern Region.

Women who are not working are 1.46 less likely to use other methods than women who are working. Use of other family planning methods is greatly influenced husband's and respondents approval of family and family planning discussion between husband and wife. Women whose husbands disapproved the use of family planning were 2.43 times less likely to other methods compared to women whose husband approved family planning. Respondents who disapproved the use of family planning methods were 2.36 times less likely to use other methods compared to respondent who approved family planning.

Women who have never discussed family planning with their husbands were 3.88 times less likely to use other methods compared to women who have discussed family planning with their husbands more than twice. Women who have discussed family planning with their husbands once or twice were 1.51 times less likely to use other methods compared to women who have discussed family planning with their husbands more than twice.

Use of other method is also influenced by the number of living children. Women who have no living children were 12.59 times less likely to use other methods compared to women with five or more children. Women with 1-2 living children were 2.64 times less likely to use other methods compared to women with five or more children. Women with 3-4 living children were 1.65 times less likely to use other methods compared to women with five or more children. The odds ratio increase with the increasing number of living children suggesting that use of other methods increases as the number of living children increase.

Table 3. Multinomial logistic regression coefficients of programmatic, demographic and socio-cultural factors that are associated with the use of contraception in Malawi

	Pill		Injection		Condom		FS \		Others	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Age of respondent										
15-19	1.52	2.17	3.28**	5.34**	7.51**	18.97**	0.00	0.00	1.50	1.22
20-24	2.24	1.86	4.25**	4.56**	5.25**	9.04*	0.16**	0.01**	1.51	1.22
25-29	3.26*	2.37	3.43**	4.02**	3.34*	5.60	0.33**	0.12**	1.25	0.91
30-34	2.53*	2.20	2.33**	2.78**	1.73	2.93	0.60*	0.46**	1.22	0.76
35-39	2.67*	2.32	1.83**	1.85**	1.56	2.11	1.24	0.79	1.29	0.76
40-44	2.37*	1.71	1.55*	1.88**	1.00	1.83	1.51	1.14	1.10	0.79
45-49 (ref.)										
Region										
Northern Region	0.94	2.36**	0.45**	0.62**	3.69**	9.06**	0.98	1.33	2.63**	3.85**
Central Region	0.61**	1.09	0.81**	0.85**	1.04	1.37	0.99	1.23	1.16	1.15
Southern Region (ref.)										
Type of Residence										
Urban	1.15	1.37	1.49**	1.43**	1.49	0.39**	1.08**	1.23	0.81	0.93
Rural (ref.)										
Work Status										
No	0.89	0.72	0.84*	0.88	0.76	1.22	0.76*	0.86	0.68**	0.73**
Yes (ref.)										
Wealth										
Poor	0.45*	0.59	0.86	0.78	0.28**	1.36	0.49*	0.38**	0.51	0.69
Middle	0.60	0.78	1.04	0.84	0.25**	1.06	0.60	0.49**	0.58	0.77
Rich (ref.)										
Respondent Education										
None	0.38**	0.29**	0.65**	0.58**	0.59	0.19**	0.42**	0.61	0.72	0.66
Primary	0.67	0.47**	0.62**	0.72**	0.63	0.42**	0.66	0.77	0.71	0.82
Secondary+ (ref.)										
Discussed FP										
Never	0.24**	0.27**	0.24**	0.34**	0.11**	0.28**	1.31	1.23	0.26**	0.35**
Once or twice	0.62**	0.77**	0.63**	0.62**	0.49**	0.35**	0.69*	0.65**	0.66**	0.83
> 2 (ref.)										

	Pill		Injection		Condom		FS '		Others	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Heard FP on Radio										
No	0.78	1.07	0.89	1.06	0.92	1.22	0.72*	0.82	1.22	1.13
Yes (ref.)										
Heard FP on TV										
No	0.84	0.53**	0.70*	0.83	1.26	0.91	0.71	0.69	0.69	0.87
Yes (ref.)										
Heard FP newspaper										
No	0.77	0.99	1.06	0.92	0.96	0.69	0.83	0.84	1.04	0.90
Yes (ref.)										
Visited by Fp worker										
No	0.65*	0.98	1.07	1.27**	0.87	0.99	0.81	1.35	0.91	1.26
Yes (ref.)										
Visited Clinic										
No	0.82	0.74	0.76**	0.80**	0.83	0.96	1.05	1.14	0.82	0.95
Yes (ref.)										
Living Children										
0	0.12**	0.04**	0.01**	0.01**	0.11**	0.18**	0.13**	0.03**	0.08**	0.02**
1-2	0.57*	0.62	0.25**	0.34**	0.47*	0.79	0.18**	0.28**	0.38**	0.31**
3-4	0.66*	0.91	0.54**	0.67**	0.49*	1.09	0.50**	0.59**	0.60**	0.69*
5+ (ref.)										
Husband Approves FP										
Disapproves	0.31**	0.71	0.32**	0.61**	0.15**	0.27**	0.35**	0.24**	0.41**	0.59**
Approves (ref.)										
Respondents Approves FP										
Disapproves	0.16	0.46	0.27**	0.29**	0.28	0.98	0.84	0.62	0.42	0.52*
Approves (ref.)										
Religion										
Christian	0.84	0.74	1.09	2.15	0.64	0.41	4.82	0.85	0.59	2.24
Muslim	0.66	0.65	0.79	1.50	1.06	0.66	2.66	0.41	0.84	2.33
Other (ref.)										

14. Discussion and concluding remarks

Family planning is acknowledged in most developing countries to be an effective way of improving the health of mothers and children and plays leading roles in mortality and fertility transitions (Cleland *et al.* 2006). Family planning also influences women empowerment. It is also argued that family planning helps to create favourable conditions for socio-economic development, and improve educational performance.

The study has demonstrated that the contraceptive method mix in Malawi has changed since the acceptance of the notion family planning in 1994. Previously, before the adoption of family planning, the pill was the most popular contraceptive. Currently, the most popular contraceptive is the injectable, followed by female sterilisation. Malawi is not the only country where injectables are popular. Other countries where injectables are popular area Indonesia, South Africa, and Kenya. In Indonesia, one in three women use injectables and one in seven use pills; in South Africa one in four women in South Africa use whereas in Kenya, two in five of contraceptive users rely on injectables. Pills are the main method of contraception in Zimbabwe, Morocco, and Bangladesh. About 72% of contraceptive users (CPR approximately 60%) rely on pills in Zimbabwe. In Morocco, two thirds of contraceptive users (CPR 63%) use contraceptive pill. Pills also prevail in Philippines and Iran. All these countries have achieved a low level of fertility and are expected to achieve the replacement-level fertility rate in a decade or so.

Multivariate analyses identified age, education, children ever born, number of living children, husband's approval of family planning, respondents' approval of family planning, discussion of family planning with partner, partners occupation and respondent's work status as the most important explanatory variables of current contraceptive choices in Malawi.

The results of the analysis also show that contraceptive method choice varies by age. Young women are more likely to use condom than older women. Older women are more likely to use sterilisation. The low contraceptive prevalence of injectables and sterilisation among women aged 15-19 years may be due to the fact that most of these are newly married, and marriage is looked upon as an institution of producing children. Young mothers may also have problems with accessing family planning services. The reduced contraceptive use among older women may be related to the fact that they have reduced their coital frequency and most of them rely on other methods like string tie and are afraid to talk about them in an interview. However, a good number of older women might be not sexually active. This analysis shows that the educational

level of the respondent is one the major factors influencing the issue of contraceptives in Malawi. This indicates that raising the level of education is one effective strategy of promoting contraceptive use in Malawi. Our findings are consistent with studies conducted in other countries and confirm the importance of women's economic empowerment (Feyisetan 2000, Saleem and Martin 2005). Partner's approval of family planning is the most important predictor of use of injectables, sterilization, pills and condoms. This is to be expected because respondents who approve of family planning are more likely to ensure that their favourable attitude is translated into high use of contraception. The study's finding that spouse' approval of family planning and discussion of family planning with partner are important predictors of contraceptive use in Malawi are in agreement with findings from other countries (Feyisetan 2000).

Finally, the determinants of contraceptive method choices use in Malawi, as presented in this study, have policy and programme implications for Malawi and for other African countries with similar social, cultural and economic conditions. First, the Malawi National Family Planning Programme should intensify not only its information, education and communication programmes on family planning to cover particularly the neglected rural areas but also, more importantly, adjust them to suit local conditions. In order to win more clients there is need for a continuous dialogue on the various contraceptive methods between service providers and clients so as to allay some of the clients' fears about supposed side effects of contraception. Second, the family planning IEC should target both men and women. Special emphasis should be put on encouraging men to play a leading role in family planning.

The importance of husband–wife communication in relation to reproductive health decision making is also emphasized by these findings. All the four methods analysed indicate that use is high among those who discussed family planning. Malawian society is largely male-dominated, even with regard to female reproductive health, so men's involvement in family planning can therefore hardly be over-emphasized. One of the crucial factors which have hindered successful implementation of the family planning programme in Malawi is minimal male involvement. This is perhaps not unrelated to male fertility preferences. The establishment of more family planning programmes for the men at work-places should help to improve communication between spouses and thereby promote more discussion on family planning and other health related issues.

Furthermore, it is crucial to continue improving girls and young women access to education in the country, as this is important avenue for increasing the women's use of modern contraceptives and for empowering women so as to enhance their active participation in market economy. Similarly, it is advisable to target young women, particularly those with no or little education, with information on reproductive health and to provide them with basic life skills to enable them to avoid early sexual activity and ultimately early marriage.

With regard to increasing the use of modern contraceptive methods, there are a number of conclusions and strategic implications that flow from these findings. Teenagers should be given priority. All opportunities, namely, the school system, youth associations, religious organisations, traditional leaders, communities and families should be sensitised and educated about contraception. Mass communication should be thought of and organized to increase knowledge of available options and access, while interpersonal communication should be considered at the community level to induce changes in contraceptive use.

Last but not the least, from research perspective, it is important to acknowledge that the analyses followed in this study may not be rigid enough considering the issues being investigated. However this study represents a good starting point in an attempt to understand the nature and patterns of contraceptive method mix in Malawi. More studies of this nature are needed. Future studies should attempt to attempt to understand contraceptive method choices using both qualitative and multidisciplinary approach.

References

Adanu, R.M.K., Seffah, J.D., Hill, A.G., Darko, R., Duda, R.B., Anarfi, J.F. (2009). "Contraceptive Use by Women in Accra, Ghana: Results from the 2003 Accra Women's Health Survey". *African Journal of Reproductive Health* 13(1): 123-134.

Anguko, A.A. (2014). *Determinants of contraceptive use among women of reproductive age in North Eastern Kenya.* Masters Thesis. Nairobi:University of Nairobi.

Audu, B., Yahya, S., Geidama, A., Abdu Ssalam, H., Takai, I., Kyari, O. (2008). "Polygamy and the use of contraceptives". *International Journal of Gynaecology and Obstetrics* 101(1): 88-92.

Bankole, A., Singh, S. (1998). "Couples fertility and contraceptive decision making in developing countries hearing men's voice". *International Family Planning Perspectives* 24: 15–24.

Bersamin, M., Todd, M., Remer, L. (2011) "Does distance matter? Access to family planning clinics and adolescent sexual behaviours". *Maternal Child Health Journal* 15(5): 652-659.

Black, A., Yang, Q., Wen, SW., Lalonde, AB., Guilbert, E., Fisher, W. (2009). "Contraceptive Use Among Canadian Women of Reproductive Age: Results of a National Survey". *Women's Health:* 627-640.

Blake, M., Babalola, S. (2000). "Impact of a Male Motivation Campaign on Family Planning Ideation and Practice in Guinea". In *Field Report No 13*. Center for Communication Programs. Baltimore: Johns Hopkins University. Bloomberg School of Public Health.

Bruce, J. (1990). "Fundamental elements of the quality of care: a simple framework". *Studies in Family Planning* 21(2): 61-91.

Bulatao, R. A. (1989). "Toward a framework for understanding contraceptive method choice". In Bulatao, R. A., Palmore, J. A. & Ward, S. E. (eds). *Choosing a Contraceptive: Method Choice in Asia and the United States*. Boulder, Colorado: Westview Press, pp. 277–304.

Chimbwete, C, Watkins, S.C., Zulu, E.M. (2005). "The evolution of population policies in Kenya and Malawi". *Population Research and Policy Review* 24: 85–106.

Chintsanya, J. (2013). "Trends and Correlates of Contraceptive Use among Married Women in Malawi: Evidence from 2000-2010 Malawi Demographic and Health Surveys". DHW Working Paper No. 87. ICF International. Calverton, Maryland, USA.

Cleland, J. *et. al.* (2006). "Family planning: the unfinished agenda. The Lancet Sexual and Reproductive Health Series". *Sexual and Reproductive Health* 3. October.

Cohen, B. (2000). "Family Planning Programs, Socioeconomic Characteristics, and Contraceptive Use in Malawi". *World Development* 28(5): 843-860.

Curtis, S.L., Katherine, N. (1996). *Contraceptive knowledge, use and sources, demographic and health survey. comparative studies No.19*. Calverton: Maryland: International. Inc.

Dang, A. (1995). "Differentials in contraceptive use and method choice in Vietnam". *International Family Planning Perspectives* 21(1): 2–5.

Dehlendorf, C.L.K, Ruskin, R., Steinauer, J. (2010). "Health care providers' knowledge about contraceptive evidence: a barrier to quality family planning care?". *Contraception* 81: 292-298.

Dodoo, F.N. (1998). "Men matter: Additive and interactive gendered preferences and reproductive behavior in Kenya". *Demography* 35: 229–42.

Diro, C.W and Mesganaw, F.A (2013). "Agreement and concordance between married couples regarding family planning utilization and fertility intention in Dukem, Ethiopia". *BMC Public Health* 13: 903 doi:10.1186/1471-2458-13-903.

Ezeh, A.C. (1993). "The influence of spouses over each other's contraceptive attitudes in Ghana". *Studies in Family Planning* 24 (3): 163-174.

Feyisetan, B.J. (2000). "Spousal communication & contraceptive use among the Yoruba of Nigeria". *Population Research and Policy Review* 19(1): 29-45.

Feyisetan, B.J and Bankole, A. (2002). *Fertility Transition in Nigeria: Trends and Prospects.* A country paper for the Expert Group Meeting on Completing the Fertility Transition. 11-14 March. New York.

Frost, J.J, Singh, S., Finer L.B. (2004). "Factors associated with contraceptive use and non-use in United States". *Perspective on Sexual and Reproductive Health* 39: 90-99.

Gregson, S., Zhuwau, T., Anderson, R.M., Chandiwana, S.K. (1999). "Apostles and Zionists: The influence of religion on demographic change in rural Zimbabwe". *Population Studies* 53: 179–193.

Gyimah, S.O., Takyi, B., Tenkorang, E.Y. (2008). "Denominational affiliation and fertility behaviour in an African context: An examination of couple data from Ghana". *Journal of Biosocial Science* 40: 445–458.

Hogan, D.P., Berhanu, B., Hailemariam, A. (1999). "Household organization women's Autonomy, & contraceptive Behaviour in southern Ethiopia". *Studies in Family Planning* 30 (34): 302-314.

Kabagenyi, A., Ndugga, P., Wandera, S.O and Kwagala, B. (2014) "Modern contraceptive use among sexually active men in Uganda: does discussion with a health worker matter?". *BMC Public Health* 14: 286. doi:10.1186/1471-2458-14-286.

Kalanda, B. (2010). "Repositioning family planning through community based distribution agents in Malawi". *Malawi Medical Journal* 22(3): 71-75.

Kalipeni, E., Zulu, E.M. (1993). "Gender differences in knowledge and attitudes toward modern and traditional methods of child spacing in Malawi". *Population Research and Policy Review* 12 (2): 103-121.

Kishindo, P. (1995). "Family Planning and the Malawian Male". *Nordic Journal of African Studies* 4(1): 26-34.

Kulczycki, A. (2008) "Husband-Wife Agreement, Power Relations and Contraceptive Use in Turkey" *International Family Planning Perspectives* 34(3): 127–137.

Malawi Government (1994a). *National Population Policy*. Office of the President and Cabinet: Department of Economic Planning and Development, Lilongwe.

Malawi Government (1994b). *Malawi Demographic and Health Survey 1992*. Zomba.: National Statistical Office and Macro International Inc.

Malawi Government (2002). *Malawi Demographic and Health Survey 2000*. Zomba: National Statistical Office and Macro International Inc.

Malawi Government (2006). *Malawi Demographic and Health Survey 2004*. Zomba.: National Statistical Office an and Macro International Inc.

Malawi Government (2011). *Malawi Demographic and Health Survey 2010*. Zomba.: National Statistical Office an and Macro International Inc.

Mamdani, M., Garner, P., Harpham, T., Campbell, O. (1983). "Fertility and contraceptive use in poor urban areas of developing countries". *Health policy and Planning* 8(1): 1-18.

Mannan, H.R. (2002) "Factors in contraceptive method choice in Bangladesh: goals, competence, evaluation and access". *Contraception* 65(5): 357-364.

Magadi, M.A., Curtis, S.L. (2003). "Trends and Determinants of Contraceptive Method Choice in Kenya". Studies in Family Planning 34(3): 149-159.

Mostafa Kamal, S.M. and Islam, A. (2010) "Contraceptive Use: Socioeconomic Correlates and Method Choices in Rural Bangladesh". *Asia-Pacific journal of Public Health* 22: 436 (DOI: 10.1177/1010539510370780).

Mostafa Kamal, S.M. (2012) "Inter-Spousal Communication and Its Effect on Contraceptive Use Pattern among Rural Women in Bangladesh". Paper presented at the Population Association of America Annual meeting, 3-5 May 2012, San Francisco.

Nalwadda, G., Mirembe, F., Byamugisha, J., Faxelid, E. (2010). "Persistent high fertility in Uganda: young people recount obstacles and enabling factors to use of contraceptives". *BMC Public Health* 10(1): 530.

Nwankwo, B.O, Ogueri, E. (2006). "Influence of Husband's Decision on the Use of Modern Contraceptives Among Rural and Urban Married Women in Imo State, Nigeria". *International Journal of Tropical Medicine* 1(40): 140-144.

Palamuleni, M.E. (2013). "Socio-Economic factors affecting contraceptive use in Malawi". *African Journal of Reproductive Health* 17(3): 91- 104.

Robey, B., Rutstein, S.O., Morris, L. (1992). "The Reproductive Revolution: New Survey Findings". *Population Reports*. Series M. Number 11.

Rutherford, R.D, Thapa, S., Desilva, V. (1989). "Strength of fertility Motivation: Its Effects on contraceptive Use in Rural Sri Lanka". *Asia pacific population Journal* 4(4): 21-44

Saleem, S., Martin, B. (2005). "Women's autonomy, education and contraception use in Pakistan: a national study". *Reproductive Health* 2: 8.

Shah, N.M., Shah. M.A., Radovanovic. Z. (1998). "Patterns of desired fertility and contraceptive use in Kuwait". *International Family Planning Perspectives* 24(3): 133–138.

Sharan, M.V.T. (2002). "Spousal communication and family planning adoption: effects of a radio drama serial in Nepal". *International Family Planning Perspective* 28(1): 16–25.

Solo, J, Jacobstein, R., Malema, D. (2005). *Repositioning family planning—Malawi case study: Choice, not chance.* New York: The ACQUIRE Project/EngenderHealth.

Seiber, E.E, Bertrand, J.T., Sullivan, T.M, (2007). "Changes in Contraceptive Method Mix in Developing Countries" *International Family Planning Perspectives* 33(3): 117–123

Stanback, J. and Twum-Baah, K.A. (2001). "Why Do Family Planning Providers Restrict Access to Services? An Examination in Ghana". *International Family Planning Perspectives* 27(1):37-41

Takruri, A, Taulo, F, Larsen-Reindorf, R., Makumbi, F., Okunlola, M., Becker S, Tsui, A. (2013). *Determinants of Couples' Fertility Desires and Concordance in Reported Contraceptive Use: Insights from Five Peri-Urban Communities in Sub-Saharan Africa.* Paper presented at PAA 2013.

Ullah, S., Chakraborty, N. (1993). "Factors Affecting the Use of Contraception in Bangladesh: A Multivariate Analysis". *Asia-Pacific Population Journal.* 8(3):19-30.

United Nations (1996). *Programme of Action Adopted at the International Conference on Population and Development Cairo.* New York: UNFPA: 53.

Yeatman, S.E., Trinitapoli, J. (2008). "The relationship between religion and family planning in rural Malawi". *Demographic Research* 19(55): 1851-1882.

Determinants of Unwanted Fertility in Bangladesh: Whether Sex Preference and Unmet Need are Dominant?

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Abstract: This study aims at investigating the determinants of unwanted births in Bangladesh and examines the dominance of each of these determinants over others. This study based 2011 BDHS data from which 5,493 ever married women were finally selected as the unit of analysis. Logistic regression analysis has been applied to underscore the determinants and to examine the control effects of variables. Result shows that about 17 percent women reported their last birth was unwanted and 83 percent of them married before reaching age 18. Unmet need for family planning, marriage at younger age , religion, low schooling years of women, and husband's desire for more children emerged as dominant factors despite control effects in the process and these factors influenced to have far higher unwanted births than their respective counterparts. The most striking finding of this study is that, along with the unmet need for family planning, there are few other factors that also supersede sex preferences. Influence of child loss experience on having unwanted birth has appeared to be insignificant. Along with the quality and pervasive family planning services, delivery of negotiation assistance to the service seekers, through the existing family planning service setup, to convince their spouses would produce great result.

Keywords: unwanted fertility, total fertility rate, replacement level fertility, unmet need, sex preference

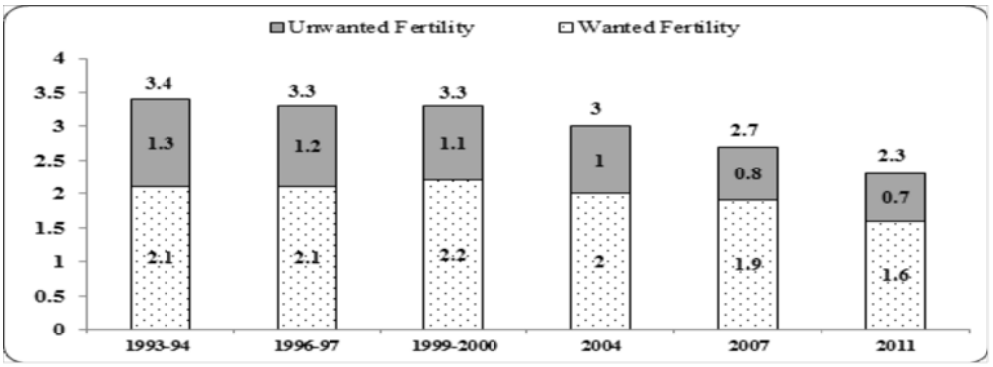
1. Introduction

Bangladesh is one of the most densely populated (964 inhabitants per square kilometer) countries in the world and the population of the country followed an exponential growth trend (PHC 2011) in twentieth century. Bangladesh's current health sector program, the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 aims to reduce fertility to 2 births per woman by 2016 to shed the overwhelmingly contiguous population.

To shape the fertility to align with the target, it is very important to identify the instrumental factors that might delay the attainment of the fertility target, so that necessary measures can be taken to control those factors. One of the mainstays that are standing in the way of achieving the fertility target is unwanted fertility. The excess of fertility over ideal family size reported by the respondents is regarded as unwanted fertility (BDHS 2011), which is being used as one of the indicators of the level of control over the reproductive processes. The elimination of unwanted births leads to substantial reductions in fertility and rates of population growth (Bongaarts 1997). Unwanted births are thought to carry distinctive and substantial costs (Gipson et al. 2008) at the individual level; preventing unwanted births enhances the well-being of women and their children (Kulkarni et al. 1998). It is evident that the unplanned pregnancy causes greater risk of pregnancy complication (Roy et al. 2012). Prevention of unwanted births closes the gap between reproductive aspirations and outcomes thus upholds individual right. Since unwanted births are assumed to be less costly to avert (Casterline et al. 2008), thus inhibiting unwanted births can be a cost-effective strategy towards the attainment of the goals in population sector.

Bangladesh has been experiencing a steady and encouraging decline in fertility since 1970 apart from a decade long plateau during 1993-94 to 2004. The total fertility rate (TFR) has declined to 2.3 in 2011 starting from over 6 in 1971-75 (BDHS 2011); but every Demographic and Health Survey (DHS) conspicuously exposed a big gap between wanted fertility and actual fertility and that gap comprises the unwanted fertility (Bongaarts 2006). Successive BDHS surveys from 1993 to 2000 (Figure 1) reveal that the TFR of Bangladesh stood still during 1990s; during this cessation period (1990s) the unwanted TFR ranged from 1.1 to 1.3 per woman and the wanted fertility were almost at replacement level. Though the unwanted fertility shows declining trend, yet the data reveals that the Bangladeshi women have 0.7 children more than their wanted number of children. If the unwanted births could be forestalled, the TFR of Bangladesh would be 30 percent lower and the fertility would have reached sub-replacement level (BDHS 2011). The facts and figures suggest that though Bangladesh is doing well in bringing her fertility down, yet the process could have been speeded up by staving the unwanted fertility off; and this study dealt with the factors that would have significant influence on that unwanted fertility.

Figure 1. Trends in actual, unwanted and wanted TFR, Bangladesh 1993-2011



Note: Values on the top of each bar represents the actual fertility
Source: BDHS-2011

Different studies conducted on unwanted fertility intended to uncover the phenomenon of reproductive process. A study stated that the prevalence of unwanted births typically increases with age and parity because women who have already achieved their desired family size do not want any more pregnancies (Kaufmann et al. 1997). Some predictors, viz. Preceding birth interval, ever use of contraceptive, ever physically mistreated by husband, at individual level were found significant in influencing unwanted pregnancies (Begum et al. 2010). Ikamari et al. (2013) concluded that marital status, employment status, ethnicity and type of settlement were significantly associated with unintended pregnancy in Nairobi, Kenya, while education and household wealth were surprisingly not strongly associated with unintended pregnancy. Adetunji (2001) in a study suggested that unwanted fertility depends on where a country is in the course of fertility transition.

In another study conducted on 41 countries, Gillespie et al. (2007) focused only on economic condition and concluded that economic condition (wealth level) has strong negative influence on unwanted fertility. But in a study on Colombia and Peru, Adetunji (1997) found that unwanted pregnancy decreased with years of education, but no significant relationship emerged between unwanted pregnancy and socio-economic status. In a study conducted with Chilean data, women aged 15-24 living in households of low socio-economic status (as measured by the father's level of education) were more likely than the daughters of better educated men to experience unintended (unwanted or mistimed) pregnancies (Herold et al. 1994). Result from a different study on Ecuador revealed that, among variables that independently

raised the likelihood of unwanted pregnancy were residence in a major metropolitan area, number of previous births and use of a contraceptive method before the most recent pregnancy; in contrast, variables: residence in rural areas, living in a high-income household and giving birth at a relatively older age (i.e., 30-49 years) negatively influenced the incidence of unwanted pregnancy (Eggleston 1999).

A study conducted on Iran concluded that a meaningful relation exists between unintended pregnancy rate and pregnancy turn (Abbasi-Shavazi et al. 2004). It is evident that there have been some studies on determinants of unwanted fertility, but it is very important to keep it in mind that the predictors of any event may change over time and can vary over space, so it has become imperative to keep the events under continuous monitoring. Since Bongaarts (2006) spotted unmet need for family planning as one of the most striking factors in analytic framework for the determinants of fertility; and in another study on stalled fertility in Bangladesh, Menken et al. (2009) concluded that the factor sex preference accompanied by number preference regulated fertility despite all other surrounding parameters. Keeping these findings in view, this study recons over examining the control effects of the variables on each other, so that the factors having comparatively higher influences on unwanted fertility can be detected.

This study intended to shed light on the differentials and determinants of unwanted fertility using the latest Bangladesh Demographic and Health Survey 2011 data. The main objective of this study was to examine the persistence of sex preference and unmet need for family planning in influencing unwanted fertility by investigating the control effects of all other relevant variables on them. Our study is expected to mark whether any changes in determinants of unwanted fertility have taken place over time and space. This study will also help find out the relative importance of each variable in influencing unwanted fertility, thus will help policy planners choose and concentrate on relatively small number of factors but most effective in harnessing the momentum of unwanted fertility.

2. Materials and Methods

2.1. Data and Methodology

This study used the data of Bangladesh Demographic and Health Survey (BDHS) 2011. The survey was based on a two-stage stratified sample of households. In the first stage, 600 enumeration areas were selected with probability proportional to the enumeration area size, with 207 clusters in urban areas and 393 in rural areas. In the second stage of sampling, a

systematic sample was applied and a total of 17,842 ever married women (response rate: 98 percent) of age 12-49 were successfully interviewed from a total of 17,141 completed household. Our focus was on the unwanted fertility in five years preceding the survey, for this reason firstly we sorted out 7,325 ever married women, of age 13-49, given birth at least one child during the five years period preceding the survey. Some studies cited that mistimed and unwanted pregnancies have different risk factors, and the circumstances in which they occur are also different (D'Angelo 2004, Kost 1998). For these reasons, women reported mistimed child birth have been excluded from the analysis. In the course of analysis, we have excluded all the cases had specific responses that could not be classified to serve the purposes of this study and whose mode of impact was impossible to discern. One of such responses is "not dejure resident" in case of radio/television possession; since this survey was conducted at household level, as a result this survey do not have information of the people who do not usually live in household (the non de jure residents), these cases can be considered as missing. Other such responses include "don't know" responses for all variables; and "up to god/fatalistic" and "others" for sex preference. Table 1 represents the profile of the sample used as the unit in the analysis in this study.

Table 1. Distribution of ever married women by selected background characteristics

Background Characteristics	Number	Percentage
Current Age of Respondents		
< 18	209	3.8
18-34	4657	84.8
35^{+}	627	11.4
Age at First Marriage		
< 18	4220	76.8
18^{+}	1273	23.2
Residence		
Urban	1763	31.9
Rural	3740	68.1
Religion		
Muslim	4913	89.4
Hindu	560	10.2
Others (Christian & Buddhist)	20	0.4
Completed Years of Schooling		
0 (no education)	1099	20.0
1-4 (incomplete primary)	990	18.0
5-9 (complete primary)	2623	47.8
10^{+} (Secondary and Higher)	781	14.2
Current Work Status		
Not Working	4898	89.2
Working	595	10.8
Economic Class		
Poor	2247	40.9
Middle	1029	18.7
Rich	2217	40.4

Source: BDHS 2011

Since this study focuses on unwanted fertility, so respondents having mistimed births have also been excluded from the analysis. After all these exclusions, finally 5,493 ever married women were used as the unit of analysis in this study. In the course of analysis it has been observed that the variables having unmet need for family planning, husband's/partner's completed years of

schooling, and couple's desire for children having missing entries for 112 (2.0 percent), 777 (14.1 percent) and 365 (6.6 percent) cases respectively; these cases have been kept out of multivariate analysis.

The measure of unwanted fertility may be subject to underestimate to the extent that women may not report an ideal family size lower than their actual family size. This underestimation might have decreased the number of unwanted birth reported by the respondents; despite such underestimation, the reported number of unwanted births is expected to be authentic as there is no causal reason to exaggerate the number of unwanted birth. Nonetheless as the focus of this study is on the determinants of unwanted fertility rather than its level, such underestimation is unlikely to distort the result of the analyses.

2.2. Analytical Techniques

In this study univariate, bivariate and multivariate techniques have been used to analyse the data. Chi-square test is used as bivariate technique to primarily examine the association between dependent and independent variables. The multivariate technique, binary logistic regression analysis has been applied to predict the odds of experiencing unwanted birth by selected background characteristics. In logistic regression analysis, the cut off level for a variable is considered $p \geq 0.05$. A total of three regression models have been fitted using logistic regression technique to examine the control effects of the selected variables on sex preference and unmet need for family planning in influencing unwanted birth, and from the same fitted lines we have also observed the control effect of the selected variables on each other to underscore the centre-piece. If Y be the response variable which is dummy in nature, viz. takes the value 1 if the birth is unwanted and 0 otherwise, and X is explanatory variable then the logits (of the three fitted models can be given as follows:

$$g(x) = \beta_0 + \beta_1 x \qquad \textbf{Model 1}$$

$$g(x_1, x_2) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 \qquad \textbf{Model 2}$$

$$g(x_1, \ldots, x_p) = \beta_0 + \sum_{i=1}^{p} \beta_i x_i \qquad \textbf{Model 3}$$

All the analyses and data processing in this study has been performed by using computer software SPSS 16.0.

2.3. Variables

The sole dependent variable of this study is whether the last birth in five years preceding the survey was unwanted? If the last birth of a respondent during five years preceding the survey was unwanted then the women was coded 1, otherwise the women was coded 0. This study mainly accounted socio-economic and demographic variables to see their impact on unwanted fertility. A respondent's preference to a specific sex was identified from her desire for number of son and daughter, viz. if a respondent's desired number of son was higher than that of the daughter, then the respondent was classified as "Has Preference to Son", and vice versa, but if the desired number of son and daughter were same then she was classified as "Unbiased". Respondents who had unmet need for spacing and limiting births were categorised as "having unmet need". Economic class of each respondent was measured by the classified wealth index in BDHS data; those who were categorised as poorest and poorer in the original BDHS data were considered as poor in our analysis; respondents categorised as richest and richer in the original data were considered as rich. If the respondent and her husband/partner desired for same number of children then the couple were considered to have agreement in terms of desired number of children.

3. Analytical Framework and Hypotheses

Socio-economic development is considered the main cause of a fertility transition over time that operates through the changes in the cost/benefit ratio of children and mortality decline (raises child survival) which controls families demand for birth to achieve the desired number of surviving children. These trends in desire for birth is expected to raise the demand for birth control (i.e., contraception and induced abortion), and, to the extent this demand is satisfied, lower fertility results (Bongaarts 2006). In many societies, son receives higher preference over daughter as in those societies a man can earn better and securely than a woman; In such societies, those who does not have any son but have many daughters take more children for the hope of a son, in such cases the number of children exceeds the desired family size. Again, some countries have higher child mortality where people want have some extra children to buffer their desired family size; these children in turn are indexed unwanted. Socio-economic development also brings changes in demographic characteristics (age structure, age at marriage, marital status, child loss experience, attitude towards sex and number, etc.) which work as auto-mechanism in changing fertility preferences. For example, by lingering the female marriage her reproductive span can be shortened. The socio-economic

and cultural factors (e.g. superstition, prejudice, etc.) are also expected to shape the psychology of human being to possess affinity for a combination of specific sex of children in the family. Such impulse for a particular sex often can not be restrained, consequently results into unwanted births.

Aforesaid discussion suggests to adopting following hypotheses:

H_1: The socio-economic and demographic variables included in the analyses will turn out to be the significant predictors of unwanted fertility.

H_2: The control effects of all the factors cannot stop the influence of sex preference and unmet need for family planning on unwanted fertility.

4. Results

4.1. Unwanted Fertility Scenario

Table 2 represents the distribution of ever married women aged 13-49 had unwanted birth by their background characteristics. The table also represents the result of Chi-square analysis; an attribute is considered significantly associated with the incidents of unwanted birth if the "p" value of Chi-square test is less than 0.05. Chi-square analysis shows that, except the variables region, current work status, child (< 5 years) death experience and aware of community clinic, all other variables were highly significant in influencing the unwanted fertility. Among the total (N = 5,493) respondents we found 927 (17%) women had their last birth unwanted during five years preceding the survey. Cross classification of the attributes exhibits that the percentage of respondents had unwanted birth is higher for the group biased to son (24%) than the other groups, interestingly percentage to have unwanted birth for the women preferred daughter (12%) over son is much lower than that of those who are unbiased (16%).

Table 2. Distribution of ever married women had unwanted birth among selected characteristics, BDHS 2011

Characteristics	Women Experienced Unwanted Birth		Total (N = 5493)
	Number	Percentage	
Sex Preference[***]			
Unbiased	786	16.2	4846
Having Preference to Son	129	23.5	548
Having Preference to Daughter	12	12.1	99
Having Unmet Need[***a]			
No	746	16.0	4662
Yes	159	22.1	719
Age at first marriage[***]			
10-13	311	27.6	1128
14-17	459	14.8	3092
18^{+}	157	12.3	1273
Residence[***]			
Urban	250	14.3	1753
Rural	677	18.1	3740
Region			
Barisal	101	16.3	620
Chittagong	186	17.7	1048
Dhaka	167	17.7	941
Khulna	89	14.2	625
Rajshahi	112	16.1	695
Rangpur	119	15.9	749
Sylhet	153	18.8	815
Religion[***]			
Muslim	876	17.8	4913
Others[1]	51	8.8	580
Respondent's Completed Years of Schooling[***]			
0 (no education)	334	30.4	1099
1-4 (incomplete primary)	250	25.3	990
5-9 (complete primary)	283	10.8	2623
10^{+} (Secondary and Higher)	60	7.7	781
Husband's/Partner's Completed Years of Schooling[***a]			
0 (no education)	391	25.1	1555
1-4 (incomplete primary)	174	18.7	929
5-9 (complete primary)	257	13.5	1903
10^{+} (Secondary and Higher)	41	12.5	329
Current Work Status			
Not Working	815	16.6	4898
Working	112	18.8	595

Characteristics	Women Experienced Unwanted Birth		Total (N = 5493)
	Number	Percentage	
Economic Class[***]			
Poor	497	22.1	2247
Middle	156	15.2	1029
Rich	274	12.4	2217
Experienced Child Death			
No	908	16.9	5383
Yes	19	17.3	110
Radio/Television Possession[***]			
No	609	20.1	3023
Yes	318	12.9	2470
Aware of Community Clinic			
No	745	16.5	4509
Yes	182	18.5	984
Couple's desire for children[***a]			
Both want same	584	14.1	4151
Husband wants more	142	24.1	589
Wife wants more	65	16.8	388

[1]Others include Hindu, Buddhist & Christian; [a]Having missing entries; *****$p < 0.05$; ******$p < 0.01$; ******* $p < 0.001$

About 22 percent respondents of those having unmet need for family planning experienced unwanted birth, which is about 6 points higher than the percentage of those who are not having unmet need (16%). Women got married at younger ages were observed more likely to experience unwanted birth; among the total women who experienced unwanted birth, about 83 percent married before reaching age 18. Lesser percentage of urban women (14%) is likely to have unwanted birth than that of the rural women (18%). Among the regions, proportion of women of Sylhet region (19%) is observed highest to have unwanted birth, while the proportion of women of Khulna regions (14%) are observed lowest.

The proportion of Muslim women (18%) experience unwanted birth is almost double than that of others (9%). The percentages of respondents had unwanted birth by various educational attainment group decreases with the increase in completed years of schooling attainment of both respondents and her husband/partner. Percentage of the women with completed primary

education had unwanted birth (11%) was 56 percent and 63 percent lower than the percentages of those who had unwanted birth and attained 1-4 completed years of schooling (25%) and 0 year or no schooling (30%) respectively. Result exhibits that the working women (19%) are more likely to have unwanted fertility than non-working (17%) women, though the variable was found statistically insignificant. Proportion of respondents among poor (22%) is observed highest to experience unwanted births and the proportions follows a falling stream with the progress in economic condition. In having unwanted fertility, percentage among the women experienced child (< 5 Years of age) (17.3%) death is almost same as the percentage who did not experience any child death (16.9). Higher percentage was observed among those who did not have radio/television (20%) to have unwanted birth than their counterpart (13%).

Result shows a little anomalous figure for respondents who were aware of community clinic and found insignificant in Chi-square test; more women (18.5%) among those who were aware of community clinic were observed to have unwanted birth than their counterpart (16.5%).

Result shows that women had agreement (14%) with husbands in terms of desired number of children was observed less likely to have unwanted birth than that of those who did not have agreement. The impact of women's desire for more children than their husband exhibits lesser influence on having unwanted birth than those whose husbands desire more children; the percentage of women desired for more children (17%) than their husbands is 29 percent lower than that of the women whose husbands wanted more children (24%) than her.

In this section we have performed logistic regression analysis as part of multivariate analysis to find out the relative odds of influencing unwanted fertility by selected variables. We have fitted a total of three models: in the first model, all the explanatory variables have been taken separately and the significance of each variable is examined in influencing the response variable (unwanted fertility). In the second model only the variables sex preference and unmet need for family planning have been included together to see control effect of one on another. All the variables found significant from first and second models are included together in third model to study the control effects of other variables on sex preference and unmet need for family planning, as well as to study the tenacity of other variables to influence the response variable.

Result of model 1 (Table 3) demonstrates that among included variables region, current work status, experienced child (< 5 years of age) death

and aware of community clinic are found insignificant and other variables are found highly significant in influencing unwanted fertility. Those who have preference to son are 1.59 times more likely to experience unwanted birth than those who are unbiased to the sex of the children. Preference for daughter has been found insignificant in influencing unwanted fertility. Respondents having unmet need for family planning are 49 percent more likely to have unwanted birth than their counterpart. Respondents who married at age 14-17 and 18^{+} are 0.46 times and 0.37 times less likely to have unwanted birth respectively than those who married before age 14. Rural women and Muslim women are more likely to experience unwanted birth than their respective counter parts.

Table 3. Relative odds of having unwanted birth by selected characteristics

Characteristics	Relative odds		
	Model-1	Model-2	Model-3
Sex Preference			
Unbiased (ref.)	1.000	1.000	
Having Preference to Son	1.590***	1.613***	NS
Having Preference to Daughter	NS	NS	
Having Unmet Need			
No (ref.)	1.000	1.000	1.000
Yes	1.490***	1.483***	1.749***
Age at first marriage			
10-13 (ref.)	1.000		1.000
14-17	0.458***	NI	0.554***
18^{+}	0.370***		0.716*
Residence			
Urban (ref.)	1.000	NI	NS
Rural	1.329***		
Region	NS	NI	NI
Religion			
Muslim	1.000	NI	1.000
Others[1]	0.444***		0.501***

Characteristics	Relative odds		
	Model-1	Model-2	Model-3
Respondent's Completed Years of Schooling			
0 (no education) (ref.)	1.000	NI	1.000
1-4 (incomplete primary)	0.774**		0.758*
5-9 (complete primary)	0.277***		0.339***
10^{+} (Secondary and Higher)	0.191***		0.247***
Husband's/Partner's Completed Years of Schooling			
0 (no education) (ref.)	1.000	NI	NS
1-4 (incomplete primary)	0.686***		
5-9 (complete primary)	0.465***		
10^{+} (Secondary and Higher)	0.424***		
Current Work Status	NS	NI	NI
Economic Class			
Poor (ref.)	1.000	NI	NS
Middle	0.629***		
Rich	0.497***		
Experienced Child (< 5yrs) Death	NS	NI	NI
Radio/Television Possession			
No (ref.)	1.000	NI	NS
Yes	0.586***		
Aware of Community Clinic	NS	NI	NI
Couple's desire for children			
Both want same (ref.)	1.000	NI	□
Husband wants more	1.940***		1.452***
Wife wants more	NS		NS

(ref.) = Reference Category; NS = Non-significant; NI = Not included in the model; *p < 0.05; **p < 0.01; ***p < 0.001

Respondents with complete primary education and secondary and higher education are respectively 72 percent and 81 percent less likely to experience unwanted birth than those who have no education. As expected, respondents whose husbands have primary education and secondary and higher education are also found less likely to have unwanted birth than those whose husband

has no education at all. Richer respondents are found less likely to have unwanted birth than their poor counterpart. Those who possess radio/television are 0.56 times less likely to experience unwanted birth than those who do not have radio/television. In the variable couples desire for children, the subcategory wife wants more is found insignificant, while the respondents whose husband wants more children than her are 1.94 times more likely to have unwanted birth than the respondents who have agreement with their husbands.

In the second model sex preference and having unmet need have been included together to see the control effect of one on another. Result of model 2 shows that, both the variables remain as robust predictor as it was in first model and the subcategory, having preference to daughter of category "sex preference" remains insignificant as before. In second model, a subtle increase was observed in the pitches of impacts of all the significant subcategories.

Third model includes all the predictors found significant from model 1 and model 2. Result of model-3 shows that the subcategory having unmet need for family planning still remain as highly significant predictor of unwanted birth as it was, but unexpectedly sex preference becomes statistically insignificant. Besides these, in third model the variables residence, husband's/partner's completed years of schooling, economic class, and radio/television possession become insignificant. The result of third model demonstrates that though the last standing variable's impact on unwanted fertility decreases to a little extent, yet the variables age at first marriage, religion, respondent's completed years of schooling, and couples desire for children persistently (significantly) continue to influence unwanted fertility despite control effects of other factors.

5. Discussions

In this study, determinants of unwanted fertility in Bangladesh have been examined. In Particular, we found a number of variables to have significant influence on unwanted fertility disregarding the control effects which is subject to first hypothesis; however few important variables became statistically insignificant. In respect of second hypothesis, when sex preference and unmet need was taken together in second model, both remained highly significant; however in the third model, control effects of other variables dispel sex preference unexpectedly, but unmet need continues to be influencing unwanted fertility significantly; this implies that unmet need surpasses sex preference. Besides these, other variables: age at first marriage, religion, women's completed years of schooling, and couples desire for children

continued to be significant in third model, apparently supersede other variables those became insignificant in third model.

Though preference to daughter did not show any significant influence on unwanted birth, preference for son demonstrates strong hold on unwanted fertility. Menken et al. (2009) in a study concluded that, desire for at least one child of each sex, especially boys, and a preference for two boys and a girl may have inhibited the fall in fertility in Bangladesh. Since, insignificance of preference to daughter implicitly implies that those, who preferred more daughters than boys, somehow compromise with the existing number of boys, but in case of those who preferred more boys over girls try to correct the situation by having additional children that results unwanted fertility. However sex preference became statistically insignificant after introducing control effects in third model. In this study, unmet need has emerged as a very powerful predictor of unwanted fertility and supersedes the effect of sex preference. Bongaarts (2006) observed that the effects of all other factors fertility operates through unmet need.

Girls married at younger ages were found more likely to have unwanted birth and the variable continues to be significant even after controlling other variables. Women who marry early may have an increased risk of having many children, in particular, if they started childbirth at younger ages (Mekonnen et al. 2011). In contrary, several studies (TGE 1993; Alene et al. 2008) have shown that postponement of first childbirth to later ages leads to fertility reductions, since shorter reproduction span may introduce parity specific controls even after the initiation of child birth.

Analyses reveal that rural women have higher likelihood of unwanted births relative to urban women. This might have been ascribed by the significant gap between the TFRs in rural (2.5, BDHS 2011) and urban areas (2.0, BDHS 2011) compared to the subtle difference among the mean ideal family sizes for women in rural (2.2, BDHS 2011) and urban (2.1, BDHS 2011) areas in Bangladesh. Data shows that the desired family size reported by rural women is pretty low, which is auspicious in achieving low fertility in the country. In contrast of this result, two different studies in India and Ecuador (Dixit et al. 2012, Eggleston 1999) cited that rural areas lowered the likelihood of unwanted pregnancy than its counterpart; but data from DHS surveys conducted in South American countries suggest that rural women are more likely to have unwanted pregnancies than their urban counterpart (Eggleston 1999). This result reveals the existence of a significant gap between urban and rural areas of Bangladesh in terms of socio-economic condition, awareness, availability and use of family planning and health services. However residence

becomes insignificant after controlling other variables. Regional impact on unwanted birth has been observed insignificant in this study, which is contradictory to the result of a study of Dixit et al.(2012) in India. This finding demonstrates that the regional disparities in Bangladesh in terms of culture, and availability, quality and uses of family planning services have become trivial.

Muslim women exposed higher risk of having unwanted birth than others which has also been corroborated by other studies including those from India, Nepal and Sri Lanka (Dixit et al. 2012, Joshi 2007, Adhikari 2005, Chacko 2001, De Silva 1991). Religion has also been found to remain significant in third model after introducing the control effects. Since Muslim communities are characterized by less female autonomy and pronatalism (Dixit et al. 2012). According to BDHS-2011 data, about 43 percent of Bangladeshi Muslim women were found not to use any contraceptive method, which is highest compared to the women of other religions. All these suggest that Muslim women need special attention for their low contraceptive use rate and higher risk of having unwanted birth than others. A study in India found that Muslim women preferred other methods over the sterilization (Bhende et al. 1991). Hence Kulkarni and Choe (1998) suggested that easy access to a variety of methods would increase contraceptive use among the Muslim women.

Women with more years of education experienced lower risk of having unwanted birth and remained significant even after introducing control effects. This result conforms to other studies (Dixit et al. 2012, Finer et al. 2011; Finer et al. 2006; Sharma et al. 2006; Cakmak et al. 2005; Adetunji 1997) on unwanted pregnancy and may be attributable to the postponement of child birth due to longer schooling. Literate women were more aware of the advantages of a small family and of contraceptive methods than illiterate women (Dixit et al. 2012). Owing to the lack of awareness and knowledge about contraceptive methods, illiterate women were more likely to experience unwanted pregnancy. Illiterate women had the risk of not using any family planning methods and the risk was many times higher than that of literate women (Cakmak et al. 2005). Higher completed years of education of husbands of the respondents demonstrate reduced likelihood of unwanted fertility, though the variable becomes insignificant after controlling the other factors. In a study in India, Dixit et al. (2012) found similar relationship between unwanted fertility and husband's educational level. Educated husbands often allow wider spaces for their wives in decision making than their counterpart.

In odds with many other studies (Ikamari et al. 2013; Heemskerk 2003; Behrman et al. 2002), surprisingly current work status of women found to be insignificant in influencing unwanted fertility even before introducing any control effect. However, judging by statistical analysis, it is difficult to entirely dismiss the influence of work status of women on unwanted fertility. In contradiction to the aforementioned studies, result (though insignificant) from table 2 shows that working women are more likely to have unwanted fertility than non-working women. This may be due to the fact that, working women's desired family size is much lower than that of the non-working women, as working women are more educated than the non-working women. Respondents of higher economic classes received lesser odds of having unwanted births, however the variable became insignificant after controlling the other variables. Studies conducted in other countries revealed similar outcome that poverty has a positive relationship with unwanted fertility (Dixit et al. 2012; Finer et al. 2011; Finer et al. 2006; Eggleston 1999; Williams 1991; Anderson 1981). However, wealthier women typically want smaller families for better future of their offspring and use available services.

In contradiction to the study of Dixit et al. (2012), child death experience was found statistically insignificant in influencing the occurrence of unwanted births even before introducing any control effects. Anticipating the deaths of some of their children, Couples in high-mortality settings may have few more children to offset the potential child loss (Mekonnen et al. 2011). According to BDHS-2011 report, the under-5 mortality in Bangladesh has declined to 53 per 1000 live births in 2011, from 133 per 1000 live births in 1993-1994, which accounts about 60 percent decline; while in 2011, the under-5 mortality in two neighbouring countries: India and Myanmar were 61 and 62 per thousand live births respectively (LTCM 2012). Perhaps such reduction in child mortality has weakened the influence of child loss experience on unwanted fertility.

The incidence of unwanted births was observed lower among the women possessed radio/television reflecting the negative impact of mass media exposure on having unwanted births; a similar finding was observed in a study on Bangladesh by Roy et al. (2012). However the variable, radio/television possession becomes insignificant after controlling other variables. Respondents whose husbands wanted more children were found to contribute more to the incidence of unwanted birth than those who were in consensus with their husbands, and the influence of husband's desire for more children remained statistically significant even in the presence of control effects; interestingly the influence of wife's desire for more children was found

insignificant before introducing any control effects. This result indicates that the opinion of women is less valued in Bangladeshi culture, and may be attributed to the lower socio-economic status and low autonomy of women folk in Bangladesh. In a study on Bolivia, McNamee (2009) concluded that couple's preferences contribute only marginally to unwanted fertility, which is contradictory to the finding of this study.

6. Conclusions

This study intended to examine the determinants of unwanted fertility in Bangladesh, as well as aimed at marking the dominant factors in the process. About 17 percent of the total women reported that their last birth was unwanted, and 83 percent of them married before reaching age 18. It is evident from this study that the Bangladeshi women of particular groups are at significantly elevated risk of having unwanted births and effective measures incorporating findings should be taken to inhibit unwanted fertility to achieve replacement level fertility. One of the striking finding of this study is that unmet need for family planning supersedes sex preference, in fact the findings suggest that there are few other variables as well, that dominates sex preference to influence unwanted fertility; these variables are age at first marriage, religion, respondent's completed years of schooling, and couples understanding in desiring children. Another important finding was that the child loss experience accounted an insignificant influence on having unwanted birth. Establishment of Quality family planning services that are tailored to the needs of Bangladeshi women is one of the dominant imperatives in increasing contraceptive use which in turn would lead to reduced unwanted fertility. In addition, intensive service operations, to reduce unmet need and to distribution the subsidized contraceptives to the exigent customers, are expected to produce great result to reduce unwanted fertility.

Given the urgency of increasing the contraceptive prevalence rate, special attention should be given to the Muslim women in providing the family planning services; making variety of services easily available to the Muslim women may uplift the overall prevalence rate. Since reaching an agreement by the couples in terms of number of children largely depends upon the techniques of negotiation; existing family planning services may provide great assistance in this regard by opening a new unit which would provide the service seekers with the technical assistance in discussing the contentious issues to reach an agreement to accept the lowest number of children proposed by either partner. Marrying girls at age 18 or above reduced the risk of experiencing unwanted birth to a great extent; this suggests that the

government of Bangladesh should reinforce the existing law regarding the legal age (18 for girls and 21 for boys) of marriage, especially among the girls. Universal primary education should be ensured by the government of Bangladesh to reduce unwanted fertility. This education is also expected to boost the woman empowerment and to attenuate the hold of religion on the Bangladeshi women along with the other impacts. Woman empowerment is also crucial in reaching consensus with her partner in deciding the family size, which exhibits great role in reducing unwanted fertility.

Besides these, without introducing control effects, other variables found significantly (model-1) associated with unwanted fertility are sex preference, residence, husband's/partner's completed years of schooling, economic class and radio/television possession. To reduce unwanted fertility in Bangladesh, it is imperative to decline differential valuing of girls further. Government should take appropriate steps to improve economic condition of the indigent people and to reduce the urban-rural differentials in terms of information diffusion also. Family Planning Programmes should be continuing the dissemination by mass media (radio/television), as mass media exposure has appeared to have significant impact on reducing unwanted fertility. Finally it can be concluded that, any measures designed in the light of aforementioned findings and recommendations would definitely move Bangladesh forward towards achieving the replacement level fertility by reducing unwanted fertility.

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References

Abbasi-Shavazi, M.J., Hosseini-Chavoshi, M., Delavar, B. (2004). "Unwanted Pregnancies and its Determinants in Iran". *Journal of Reproduction & Infertility* 5(1): 62-76. Retrieved from http://www.jri.ir/En/ShowArticle.aspx?id=144

Adetunji, J. (2001). *Mistimed and Unwanted Child Bearing in the Course of Fertility Transition*. Presented at the workshop on Prospect for Fertility Decline in High Fertility Countries. New York: Population Division, Department of Economics and Social Affairs, United Nations Secretariat. July 9-11.

Adetunji, J. (1997). *Levels, Trends, and Determinants of Unintended Childbearing in Developing Countries*. Paper presented at the Annual Meeting of the

Population Association of America. Washington, DC, USA. March 27-29.

Adhikari, R. (2005). *Determinants of unintended pregnancy among currently pregnant married women in Nepal. Bangkok*. Master's thesis. Thailand: Mahidol University, Faculty of Graduate Studies.

Alene, G.D., Worku, A. (2008). "Differentials of Fertility in North and South Gondar Zones, Northwest Ethiopia: A Comparative Cross-Sectional Study". *BMC Public Health* 8: 397. doi: 10.1186/1471-2458-8-397

Anderson, J.E. (1981)."Planning Status of Marital Births, 1975–1976". *Fam Plann Perspect* 13(2): 62-70.

Bangladesh Demographic and Health Survey (BDHS) (2011). National Institute of Population Research and Training (NIPORT). Mitra and Associates, Dhaka, Bangladesh, Measure DHS, ICF International, Calverton, Maryland, USA.

Begum, S., Dwivedi, S.N., Pandey, A., Mittal, S. (2010)."Association Between Domestic Violence and Unintended Pregnancies in India: Findings from the National Family Health Survey-2 Data". *The National Medical Journal of India* 23(4): 198-200.

Behrman, J.R., Kohler, H.P., Watkins, S.C. (2002)."Social Networks and Changes in Contraceptive Use Over Time: Evidence from a Longitudinal Study in Rural Kenya". *Demography* 39(4): 713-738.

Bhende, A.A., Choe, M.K., Rele, J.R., Palmore, J.A. (1991). "Determinants of Contraceptive Method Choice in an Industrial City of India". *Asia-Pacific Population Journal* 6(3): 41–66.

Bongaarts, J. (2006). "The Causes of Stalling Fertility Transitions". *Studies in Family Planning* 37(1): 1-16.

Bongaarts, J. (1997). *The Proximate Determinants of Unwanted Childbearing in the Developing World*. Paper presented at the Annual Meeting of the Population Association of America, Washington, D.C. March 27–29.

Cakmak, A., Ertem, M. (2005)."An Important Opportunity for Family Planning Education: The Mother of Patient Receiving Medical Treatment in a Children's Hospital". *Journal of Dicle Medical* 4: 190-195.

Casterline, J.B., Mendoza, J.A. (2008). *Unwanted Fertility in Latin America: Historical Trends, Recent Patterns*. Paper presented at the Annual Meeting of the Population Association of America, Detroit. April – 2 May.

Chacko, E. (2001)."Women's Use of Contraception in Rural India: A Village-Level Study". *Health Place* 7(3):197-208.

D'Angelo, D.V., Gilbert, B.C., Rochat, R.W., Santelli, J.S., Herold, J.M. (2004)."Differences Between Mistimed and Unwanted Pregnancies

Among Women Who Have Live Births". *Perspectives on Sexual and Reproductive Health* 36(5): 192-197.

De Silva, W.I. (1991)."Consistency Between Reproductive Preferences and Behavior: The Sri Lankan Experience". *Study in Family Planning* 22(3): 188-197.

Dixit, P., Ram, F., Dwivedi, L.K. (2012). "Determinants of Unwanted Pregnancies in India Using Matched Case-Control Designs". *BMC Pregnancy and Childbirth* 12:84.

Eggleston, E. (1999). "Determinants of Unintended Pregnancy Among Women in Ecuador". *International Family Planning Perspectives* 25(1): 27-33.

Finer, L.B., Henshaw, S.K. (2006)."Disparities in Rates of Unintended Pregnancy in the United States, 1994 and 2001". *Perspectives on Sexual and Reproductive Health* 38(2): 90-96.

Finer, L.B., Zolna, M.R. (2011)."Unintended Pregnancy in the United States: Incidence and Disparities, 2006". *Contraception* 84(5): 478-485.

Gillespie, D., Ahmed, S., Tsui, A., Radloff, S. (2007). "Unwanted Fertility Among the Poor: An Inequity?" *Bulletin of the World Health Organization* 85: 100-107.

Gipson, J.D., Koenig, M.A., Hindin, M.J. (2008). "The Effects of Unintended Pregnancy on Health Outcomes: A Review of the Literature". *Studies in Family Planning* 39(1): 18-38.

Health, Population and Nutrition Sector Development Program (HPNSDP). (2011). Program Implementation Plan (2011-2016) Volume-I, Planning Wing, Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh.

Heemskerk, M. (2003)."Self-Employment and Poverty Alleviation: Women's Work in Artisanal Gold Mines". *Human Organization* 62(1): 62-73. .

Herold, J.M., Thompson, N.J., Morris, L., Valenzuela, S. (1994). "Unintended Pregnancy and Sex Education in Chile: A Behavioural Model". *Journal of Biosocial Science* 26(4): 427-439.

Joshi, H. (2007). *Health status index-Rajasthan: Spatio-temporal appraisal at Panchayat Samiti/block level by Institute of Development Studies*. Concept Publishing Company, Jaipur, India. .

Kaufmann, R.B., Morris, L., Spitz, A.M. (1997)."Comparison of Two Question Sequences for Assessing Pregnancy Intentions". *American Journal of Epidemiology* 45(9): 810-816.

Kost, K., Landry, D.J., Darroch, J.E. (1998)."The Effects of Pregnancy Planning Status on Birth Outcomes and Infant Care". *Family Planning Perspectives* 30(5): 223-230.

Kulkarni, S., Choe, M.K. (1998). *Wanted and unwanted fertility in selected states of India.* National Family Health Survey Subject Reports, No. 6, International Institute for Population Science, India.

Lawrence-Ikamari, L., Chimaraoke-Izugbara, C., Ochako, R. (2013). *Prevalence and Determinants of Unintended Pregnancy Among Women in Nairobi, Kenya*. *BMC Pregnancy and Childbirth* 13: 69.

Level & Trends in Child Mortality (LTCM). (2012). Inter-agency Group for Child Mortality Estimation, United Nations.

McNamee, C.B. (2009). "Wanted and Unwanted Fertility in Bolivia: Does Ethnicity Matter?" *International Perspectives on Sexual and Reproductive Health* 35(4): 166-175.

Mekonnen, W., Worku, A. (2011). "Determinants of Fertility in Rural Ethiopia: The Case of Butajira Demographic Surveillance System (DSS)". *BMC Public Health* 11:782.

Menken, J., Khan, M.N., Williams, J. (2009). "The Stalled Fertility Transition in Bangladesh: The Effects of Sex and Number Preferences. IBS Population Program, Institute of Behavioral Science, University of Colorado.

Population and Housing Census: Preliminary Results (PHC). (2011). Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, Government of the People's Republic of Bangladesh.

Roy, T.K., Sing, B.P., Sing, K.K. (2012). "Socio-Demographic Determinants of Unplanned Pregnancy in Bangladesh". *An International Research Referred Journal Related to Higher Education, Drishti*, *Banaras Hindu University* 3(1): 1-11.

Sharma, R., Choudhary, S.K., Pandit, N. (2006). "Outcome of Unwanted Pregnancies: A Comparative Study". *Indian Journal of Community Medicine* 31(2): 112-113.

TGE. (1993). The National Population Policy of Ethiopia. Addis Ababa, Ethiopia.

Williams, L. (1991)."Determinants of Unintended Child Bearing Among Ever-Married Women in the United States: 1973–1988". *Family Planning Perspectives* 23(5): 212-221.

Intergenerational Care Giving Transfers within Kinship Relations: Rural-Urban Comparison

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Abstract: In the context of various changes related to family and as well to the idea of familism, numerous questions are raised about the consequences of these transformations on intergenerational transfers between members of extended family. Bulgaria and Romania, two former socialist countries, are beginning to face the same demographic changes, so a new niche starts to worth to be explored for the two countries. Focusing on practical support provided by adult children and by parents, the article will address a both a descriptive and an explanatory approach on the differences between rural and urban areas in Bulgaria and Romania. Using personal and family characteristics, living arrangements and opinions about family responsibilities, I will try to show on what grounds informal support transfers occur.

Keywords: family relationship, intergenerational transfers, functional solidarity, normative solidarity

1. Introduction

Various changes in the family structure, and also changes in the field of attitudes and beliefs about family, made by the modernization and by the industrialization process, became one of the most important reasons why scholars are more and more interested in studying family solidarity. One of the earliest works in this field of study was written by Dinkel (1944), which conclude that young Americans tend to be more passive about filial obligations, but more open to improve their personal relations with the older generation. In the present days extended family includes more successive generations than ever, but in the same time less members for each different generation (Bengtson et al. 1990, Mureşan 2012), the bonds between family members are becoming more fragile and the divorce rate is increasing.

Also gender differences are becoming less noticeable in the context of women's emancipation; traditional beliefs about family and authoritative status of parents towards children are replaced with individual autonomy of each family member (Mureşan 2012: 231). Moreover, some specific structural changes such as the rising cost of welfare state, the rising unemployment and ageing, give a political sense to family solidarity as a substitution form for public solidarity, the state is trying to transfer its role as guarantor in fervour of the "private sector" (Bawin-Legros and Stassen 2002: 244). For sure, relationships between young and old generations are somehow affected by these political actions, through laws, reforms etcetera, but I will only focus here on functional solidarity and attitudes about intergenerational responsibilities.

Functional solidarity refers to "the extent to which help and support is given, received or exchanged between family members" (Parrot and Bengston 1999: 76). The most commonly types of help are divided in three dimensions as follows: (1) material support, (2) practical or instrumental support and (3) counselling or affective support, or two dimensions in the form of time and money transfers (Bawin-Legros and Stassen 2002; Biniachi, et al. 2006; Herlofson, Hagestad et al. 2011, Silverstein et al. 2012). It has been shown that both generations are usually involved in such sharing relations, adult children especially offer personal care and housekeeping to their old parents and parents usually give material support to their offspring and childcare to their grandchildren (Bawin-Legros and Stassen 2002; Biniachi et al. 2006, Brandt et al. 2009; Leopold and Raab 2011). The kinship relation can be seen both as an informal exchange market with a utilitarian purposes or as a form of expression of sentiments, beliefs and conformation to social norms (Bawin-Legros and Stassen 2002). However, the conceptual and empirical strength of the intergenerational solidarity paradigm model, a normative-integrative approach, lays in its consideration of affective bonds between generations (Silverstein et al. 2012). Contrariwise, the transactional approaches to intergenerational relations usually relay on market principles focused on the value of labour and money, and are framed on the principle of reciprocity or exchange (Silverstein et al. 2012). Still, the border between those two perspectives is not well delimited.

The aim of this paper is to examine the effect of both social demographic characteristics and attitudes towards family on intergenerational solidarity in rural and urban areas of two former socialist states from East-South Europe, Romania and Bulgaria. The article addresses both a descriptive and explanatory manner of upward (from adult children to parents) and downward (from parents to adult children) practical transfers, focusing on

providing childcare and personal care. From an intergenerational perspective, the reason for choosing this two forms of support is related to the fact that, each type of help is usually provided in only one direction: upward or downward. Regarding the attitudinal perspective, differences of opinions linked to place of residence in Romania and Bulgaria will be presented. Later on, will be provided explanations about how these differences of opinions may (or may not) influence intergenerational transfers of practical services.

2. Intergenerational Time Consuming Transfers in Europe: Previous Research

Firstly, I will bring into discussion the most important findings about personal care. It has been shown that family members are the main providers of personal care compared with care giving organizations or with paid caregivers (Biniachi et al. 2006). The main caregiver of the person in need is usually the spouse or partner, followed by co-resident children and then non-co-resident children (McGarry 1998, Brandt et al. 2009). Another specific feature of such type of assistance is close related to gender. The same author says that women represent about 70% of adult non-co-resident children that are involved in transfers of care (1998). Still, based on the fact that women's participation to paid labour force is continuously rising, the gendered feature of providing personal care could be less visible. Also, education and income are influencing factors. While education level and income increases, the chance to provide care is smaller (Coward and Dwyer 1990). Rare high educated adult children will take direct responsibility for taking care of their frail parent because of the lack of time caused by intense participation on the labour force market and also because they can afford to pay professional care. It is clear that for low educated children with small incomes, assuming directly such duties is almost the only way to provide needed care for their parents. As well, in this direction we can talk about structural conditions that influence intergenerational family time transfers. The most noticeable examples are the system of redistribution and cultural norms characteristics to every country. The number of siblings does not seem to be correlated with giving personal assistance, despite on the fact that the probability of helping decreases for each additional sibling (Brandt et al. 2009). This leads us to believe that the responsibilities are shared between siblings and each must contribute with his or her own resources.

The second type of practical help took into account is childcare. In respect to formal vs. informal childcare, is has been shown that childcare coverage rates in public or publicly subsidized facilities for children under three years is less than ten percent in Eastern European countries, compared with

over 40% in West Europe (Keck et al. 2009). The fall of communism caused the low public investment in family life and brought the traditional patriarchal attitudes towards families (Jappens and Van Bavel 2009). Because intergenerational informal childcare is rather provided by grandparents, we will consider it as a downward type of practical support. As in the previous case, grand parental childcare is a gendered intergenerational support, especially when the activity is provided on regular basis; grandmothers, mainly maternal grandmother are more likely to offer their informal services (Guzman 2004, Fokkema et al. 2008, Hank and Buber 2009). Considering age and health, evidence consistently shows that younger and healthy grandparents are more likely to provide care compared with the older ones (Hank and Buber 2009). In what concerns direct beneficiaries, preschool aged nephews have more chances to be taken in care by their grandmother (Guzman 2004, Hank and Buber 2009). Regular childcare is less provided by working grandparents compared with retired grandparents (Hank and Buber 2009). In the same time, lone grandparents have less chances to be the insurers of intergenerational support, especially in the case of grandfathers (Fokkema et al. 2008, Hank and Buber 2009, Mureşan 2012).

In addition to what has been said, the number of grandchildren influences the support transfers, first-born or only children being more likely to be left in care by members of the older generation (Ghysels 2011). The distance between the households of parents and adult children plays another important role because the odds for choosing informal intergenerational support are greater when the extended family members live close to each other (Guzman 2004, Hank and Buber 2009).

3. Norms and Attitudes Towards Intergenerational Solidarity

Norms and attitudes about family constitute other major factors which influences intergenerational support relations. A clear and concise definition is given by Parrot and Bengston saying that, "Normative solidarity (familism or normative expectations) represents attitudes about the centrality and importance of the family and values surrounding the enactment of help and support norms between family members" (1999: 76). A very important further step is to explain the meaning of the concepts of attitudes and norms. Attitudes express personal evaluations, and are seen as the individual rapport toward a particular situation, while norms are a macro or mezzo-level phenomenon which represents socially shared standards of behaviour and have a slight tendency for social control (Herlofson, Hagestad et al. 2011). Norms and attitudes related to family can be found in literature categorized in three

forms as follows: filial norms, parental norms and general kinship norms (Rossi and Rossi 1990). The first one, filial norms, refers to obligations of adult children to ensure welfare to their parents. Parental norms refers to obligation of parents towards their adult offspring and the last, general kinship norms, as can be easily understood, refer to normative obligation about kinship relations in general way (Rossi and Rossi 1990).

Comparing attitudes about family across the Europe, researchers shows that in Southern and Eastern European countries people have more traditional views about family and also have a higher sense of obligations between family members (Fokkema et al. 2008, Jappens and Van Bavel 2009, Viazzo 2010). State-of-the-art report *Intergenerational linkages in families* summarizes most of research linking attitudes towards family and actual behavior and shows that the findings are inconsistent (see Dykstra et al. 2014). Kalmijn and Saraceno (2008) reveals that in countries where adult children have stronger attitudes about filial obligations the upward support is more frequent comparative with countries where such attitudes are different. Contrariwise, Cooney and Dykstra (2013) found limited evidence that strong attitude about filial and parental obligations affect functional support in the case of United States and the Netherlands. It is believed that the public support systems characteristic to each country influence the value system and attitudes about family responsibility (Esping-Anderson 1990, Viazzo 2010, Conney and Dykstra 2013).

4. Differences between Countries and Place of Residence

For both Bulgaria and Romania, low fertility combined with significantly migratory outflow of young populations to Western European countries started the process of ageing, a new demographic challenge. After 1989, Bulgaria and Romania had lost 5.5% and 6% of their population. Rural areas were the most affected in Bulgaria where, between 1990 and 2004, the population declined up to 30% (Kulksár and Brădăţan 2014). The authors show that not only external migration contribute to highly increasing ageing of the rural population but also migration of the youngest from rural to urban places (2014). Since parents did not have much to offer, they started to search better economic opportunities. One of the most important effects of ageing due to internal and external migration from rural living areas is the decline of intergenerational family care. Elderly are most affected because, on the one hand, if is needed and, they have less chances to receive personal assistance from adult children and on the other hand, despite their precarious situation

they have to take the responsibility for caring young grandchildren whose parents work abroad (Kulksár and Brădăţan 2014).

In terms of family constellations, between Bulgaria and Romania there can be found similarities and also differences. It has been shown that in Romania only 55% of population above age 20 (the lowest in Eastern Europe) have at least one parent alive, while Bulgaria has the highest incidence of parental ties (70%) (Puur et al. 2011). The authors explain the difference between countries as an effect of a persistent pattern in Bulgaria of early childbearing across the 20th Century, which led to a 26.3 years distance between adult children (anchor) and the generation of parents, which is the shortest if to be compared with the other countries (2011). In reverse, the availability of grandchildren for the population aged 60-79 puts again the two countries at opposite poles. While Romania exhibit the lowest percentage (76), Bulgaria is among the countries with the highest percentage of grandchildren availability (86) (Puur et al. 2011). Still, the difference between countries is smaller for younger generation of grandparents who have at least one nephew, 33.5% in the case of Bulgaria and 31.5% in the case of Romania.

At the beginning of the article it has been mentioned the vertical extension of generations as a new demographic trend which influence the relationships within members of extended family (Bengtson et al. 1990; Mureşan 2012). Studying parent-child and child-parent relationships from this perspective, it can be captured an overall picture of the entire chain which connects the generations. For Bulgaria and Romania the vertical structure of generations is substantially different. It was found that for all age groups Romania has higher ratio of two generations incidence than Bulgaria and the number continues to be greater for each age group separately. In case of three generations, most often grandchildren, parents and grandparents, the differences at all age groups seem to be almost equal, but are present for each distinct one, especially at age 60-79 (see Puur et al. 2011).

Regarding attitudes about family, rural-urban difference seems to be inconclusive due to contradictory research results. In some cases respondents living in rural areas seem to have stronger sense of family obligations than respondents from urban places, in other cases the results were quite opposite or even showed no difference at all (see Herlofson et al. 2011). Following a qualitative analysis, Kulksár and Brădăţan (2014) revealed that in rural Bulgaria and Romania, the old parents believe that adult children should take the responsibility to ensure their well-being on behalf of the state but for this to happen, the state, in turn, must take care of the younger generations.

5. Hypotheses

Based on the recent literature reviewed in the previous sections, I expect for both countries that personal assistance and childcare are gendered activities, so women have higher probability to be involved in such transfers, especially in rural areas. Low educated people will provide more informal assistance than persons with high level of education. Concerning age, older adult children and younger grandparents are more likely to provide help in the family. If the respondent of the young generation grew up in rural area but he or she moved to the city, the chances are less that he or she provides care to old parents. This case will not apply to the elderly because I believe that grandparents who were born in rural areas without concerning current residence are more likely to assure childcare to their descendants.

Regarding characteristics of family and household, I predict that those who are married and share the same household with the beneficiary of support have better chances to be involved in time-consuming transfers between members of the extended family. Clockwise, the odds will go down if the respondent can share the responsibility of providing care with relatives belonging to the same generation. Also, I believe that the intensity of support given to young generation will not increase proportionally with the number of adult children and grandchildren. Not least, strong attitudes towards family obligations and filial or parental obligations will have a positive effect on intergenerational transfers for both rural and urban areas. Receiving intergenerational support is another factor that I believe to correspond with higher prevalence of support given due to principle of reciprocity.

6. Data and Methods

The empirical analysis of this study is based on data from the first wave of the Generations and Gender Survey. The main purpose of the program is to provide information for a better understanding of social and demographic changes, focusing on relations between parents and adult children and relations between partners. In the present study I included data for Bulgaria and Romania, two former socialist countries from Eastern Europe. Data collection was conducted in Bulgaria in 2004 and in Romania in 2005, using nationally representative samples of 12,858 and 11,986 respondents respectively.

In order to look at family relations from the both perspectives, the starting point of my analysis was to define two sub-samples that represent adult children and parents generations. Therefore, the sub-sample correspondent to adult children generation consists in respondents with at least one biological parent alive, no matter their age or residency status. On the other side, the sub-

sample of parents includes all respondents older than 50 years which have at least one biological adult child (18+) alive. For Bulgaria, the sub-sample of younger generation is equal to 9,110 respondents and the parents sub-sample is equal to 5,234 persons. For Romania, the values are more balanced, there are 6,672 respondents belonging to the first sub-sample and 6,001 persons belonging to parents sub-sample. Table A1 from Appendix A contains a summary of the characteristics of each country samples and sub-samples.

For dependent variables that express informal support I chose two sets of questions: *Do you (also) get regular help with childcare from relatives or friends or other person for whom caring for children is not a job?* If the answer is yes, the question was followed by another one: *From whom do you get this help?* The second set of question is : *Do you need regular help with personal care such as eating, getting up, dressing, bathing, or using toilets?* If the answer is yes, it continues with: *Over the last 12 months, have you (also) received such help from other people for whom providing such care is not a job? From whom did you get this help?* Starting from these questions new variables were created to be used for descriptive and explanatory statistical analyses. First of all I calculated the incidence of help given from both generations according to place of residence of respondent. The next step consisted in binary logistic regression analysis where I used different kinds of dependent variables and covariates. Rural and urban places were treated separately for each type of help provided. Firstly I used variables expressing personal characteristics such as gender, age, level of education, residency area during childhood and occupational status. The second type of covariates consists in variables linked with family and household, as follows: marital status, living arrangement of respondent, number of siblings, number of persons living in respondent's household, number of children, and number of grandchildren aged less than 14. Thirdly, for the last model of logistic regression I used opinion variables and one variable about the possibility of short-term reciprocity. By short-term reciprocity we understand that the respondent, who provided help during the last year, was also a receiver of some kind of intergenerational help in the same period of time. In constructing this variable, I used three types of help: practical (keeping the household clean), financial and emotional help.

At attitudinal level, I created new variables which express opinions about filial, parental and family obligation in respect to personal assistance and childcare support. Selected assertions from questionnaire which express filial obligations are: *children should take responsibility for caring for their parents when parents are in need* and *children should have their parents to live with them when parents can no longer look after themselves,* while the following statement express parental

obligations*: grandparents should look after their grandchildren if the parents of these grandchildren are unable to do so.* For the case of family obligation, the respondents had to choose the institution which they think is responsible (family or society) for the following: *care for older persons in need of care at their home, care for pre-school children* and *care for schoolchildren during after-school hours.*

7. Results

As expected, for both countries, care giving is usually an upward intergenerational transfer and childcare is mostly downward intergenerational transfer. Table B2 (see Appendix B) also shows that upward care support is less provided than downward childcare support. Comparing Romania with Bulgaria we can see small differences between the total amounts of help provided. However, this is not the same when type of settlement criteria is included. Disparities between countries according to place of residency can only be seen in the case of childcare provided by grandparents from Bulgaria, where 6% of respondents provide help in urban areas and 2% provide help in rural areas.

7.1. Care provided by adult children to their parents

7.1.1. Effects of personal characteristics

Forwards, for the logistic regression analysis I used personal care as support provided upwards and childcare as support provided downwards on intergenerational line. According to the information presented in Table 1, it can be seen that women are more likely to provide informal help than men. Surprisingly, urban resident daughters have almost two times higher chances to provide support than men, while in rural area (only in Romania) the odds are smaller (one and a half higher). Regarding age, it is shown that older persons are most likely to provide support comparative with young adult children. For the last age category of adult children the odds ratio have so high values because of the small number of parents who remained alive and also because of their very poor health condition. For both countries, urban inhabitants in every age group have more chances to provide help. There are some slightly visible differences between countries. In Romania the values of odds ratio for the last two age specific groups are more balanced when it comes to area of residence compared to Bulgaria, case in which rural respondents are four respectively six times more likely to provide support then the respondents aged 18-29, while urban residents have eighteen respectively fourteen times more chances to be involved in the same transfers. Educational attainment is another important influencing factor, but not for rural Bulgaria. For urban residents the

chance to provide intergenerational informal care increases with the level of education. Highly educated adult children in Romania are 3.7 times more likely to provide support than those with low education; while in Bulgaria the odds are 3.3 times higher for tertiary graduates than for low educated people. Clockwise, in rural Romania the odds are lower for high educated respondents compared with medium and low educated respondents.

Due to the fact that there was no statistical significance between rural and urban area for intergenerational support, I introduced a new variable expressing this time the type of settlement under age 15. Therefore, Table 1 shows that migration from rural to urban areas has negative effect on providing care. In Romania adult children who were born in rural area and at the moment of interview are living in urban places show less than half chances to offer personal support, compared with those who did not changed their type of residency. Rural inhabitants from Romania who were born in the same type of settlement have nearly three times more chances to provide intergenerational personal care than those who were born in urban. For the case of Bulgaria the odds exceed by seven times for the situation of non-internal migration.

7.1.2. Effects of characteristics related to family and household

As respects marital status, the second model of the logistic regression from Table 1 shows that for both countries, in rural areas widow daughters have the greatest chance to provide support for their old parents. In urban Romania, divorced adult children have more the three time chances to offer support and in urban Bulgaria the highest odds are for married offspring (four and a half more chances). Surprisingly, only in rural Romania and urban Bulgaria parents living alone show higher odds to be beneficiary of support offered by adult children than parents living with other person beside respondent. If the parents who benefit from personal assistance provided upward, the chances to be involved in such transfers decrease if their living arrangement is other than co-resident with the provider. As the number of persons from respondent household grows, the chances of respondent adult children to offer help decrease constantly in rural Romania and urban Bulgaria. For other two situations, the number of person in respondent household has no statistical significance. Also, the number of siblings seems to have no statistical significance for Romania and Bulgaria.

7.1.3. Effects of norms and attitudes

Moving on to the discussion about attitudes, our analysis revealed that more than half of respondents from both generations have positive opinions about filial and parental obligations towards other family member in need. Moreover, it seems that the percentage of persons who are not decided what to answer is higher than the percentage of people who do not belief in such obligations. Table B2 from appendix shows that 90% of adult children from Bulgaria and 88% from Romania think that they should take responsibility for caring for their parents when parents are in need. Table B3 shows that 81%of Bulgarian adult children and 71% of Romanian adult children think that offspring should have their parents to live with them when parents can no longer look after themselves. For both countries there are more positive opinions regarding co-residence in urban areas. Younger generation also believes that family rather than the society is responsible for providing care to ill people. We can see in Table B4 that 44 % of adult children from Bulgaria and 68% from Romania think that family is the major insurer, 17% respectively 10% believe that society should take the responsibilities. Still, there are 40% and 21% offspring respectively who say that this should be a task equally for both family and society. Again, there is significant difference between types of settlement for the two countries, the percentages being higher in urban.

We could not create neither for Bulgaria nor for Romania proper logistic regression models using opinion variable due to the lack of statistical significance between the dependent and covariates. Despite this, we can see in Table 1, third model of logistic regression, that especially for Bulgaria the odds are higher if adult children have positive attitudes towards filial and family obligations. Reciprocal variable is significant only for the practical reciprocity, chances being half smaller due to the fact that parents who receive personal help have no proper health condition to allow them to help their adult children in the household work.

Table 1. Results of logistic regression analysis for personal care provided by adult children to their parents

Categories	Romania				Total	Bulgaria				Total
	Rural area		Urban area			Rural area		Urban area		
Gender (male =ref)					3460					3963
female	1.580	**	1.702	***	3210	1.250		1.925	***	4938
Age (18-29 =ref)					1490					2933
30-54	1.890	+	3.196	***	4525	2.633	***	4.205	***	5366
55-64	5.593	***	8.889	***	564	4.185	***	18.100	***	529
65-80	18.455	***	18.987	***	91	6.363	***	14.367	***	73
Level of education (low =ref)					1720					1880
medium	0.595	**	1.970	**	4116	0.964		2.940	***	5097
high	0.178	**	2.733	***	834	0.727		3.363	***	1924
Type of settlement under 15 year (urban =ref)					4342					2379
rural	2.963	***	0.427	***	2328	7.209	***	0.817		6522
Nagelkerke R^2	0.110		0.076		-	0.124		0.097		-
Second Model										
Marital status respondent (never married =ref)					1541					3254
married	4.595	***	2.749	***	4633	2.462	***	4.633	***	5041
divorced	1.295		3.183	***	316	1.832		4.117	***	420
widowed	10.317	***	2.551	*	173	12,93	***	2.531	*	126
Living arrangement of the parents (with respondent =ref)					1473					3004
alone	0.230	***	0.401	***	3202	0.291	***	0.425	***	3991
with partner/spouse	0.182	**	0.882		282	0.121	**	0.158	***	346
other relative	0.182	***	0.480	**	1706	0.467	**	0.349	***	1500
Number of siblings (none =ref)					1024					1207
1	1.028		1,332		3088	0.794		0.915		5539
2	1.279		0,908		1589	1.676	+	0.973		948
3 or more	1.525		0,826		962	1.027		0.906		1147
Number of persons living in respondent household (one person = ref)					344					337
2	0.656		1,172		1333	-		0.509	*	1147
3	0.320	**	0,632		2090	-		0.347	***	2739
4	0.245	**	0,455		1818	-		0.271	***	2945
5 and more	0.282	**	0,163	** *	1078	-		0.134	***	1673
Nagelkerke R^2	0.056		0.045		-	0.048		0.045		-

Categories	Romania				Total	Bulgaria				Total
	Rural area		Urban area			Rural area		Urban area		
3th Model										
Responsible institution for providing personal care (equally for both =ref)					1431					3616
society	0.374		0.479	+	663	0.900		0.738		1502
family	1.178		1.152		4578	1.304		1.210		3952
Filial obligation towards personal care (no opinion = ref)										751
positive opinion	1.509		0.817		5888	3.873	*	1.004		8192
negative opinion	4.020	*	0.846		112	0.000		0.370		127
Filial obligation to co-reside with ill parents (no opinion = ref)					1582					1444
positive opinion	1.263		1.286		4707	1.371		1.022		7338
negative opinion	0.927		1.326		383	1.067		0.588		288
Support received from parents (no support received =ref)					4862					4070
practical	0.880		0.402	**	617	0.530	**	0.637	***	2451
financial	0.674		1.807		112	0.917		1.267		155
emotional	1.158		1.319		1081	0.780		0.868		2394
Nagelkerke R^2	0.012		0.013		-	0.019		0.009		-

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$ for p<0.15.
Source: GGS database, author calculations

7. 2. Childcare provided by parents to their grandchildren

7. 2. 1. *Effects of personal characteristics*

From the perspective of parents (grandparents) who offer childcare support to their adult children, we can see again that this kind of intergenerational transfer is gendered. Table 2 shows for both countries that grandmothers have more than one and a half chances to be the providers of care comparative with their spouses. Still, in Romania the gender difference appear to be greater than in Bulgaria. Along with ageing of grandmothers, the odds get lower and lower, fact visible for both area of settlement in both countries. Moving on, in Table 3 can be also seen that in urban places the chances to offer support are higher for medium educated grandparents (double odds in Romania and two and a half in Bulgaria). In the case of rural residents, the odds decrease at once with advancement educational attainment. Likewise the first scenario, for parents' generation, the type of settlement under the age 15 presents same patterns. Rural respondents who were born in rural area have the greatest chances to provide childcare versus parents who were born in urban and moved in rural areas. For urban inhabitants the odds are lower if they were born in rural places but also is the level of significance for this variable. Occupational status of grandparents (employed or retired) is significant only for urban Romania.

There are two and a half more chances for retired grandparents to offer childcare then employed of self-employed grandparents.

7. 2. 1. *Effects of characteristics related to family and household*

For the case of Romania marital status has low significance. We can see in the second model of logistic regression from Table 2 that divorced parents from rural areas have more than half less chances to provide support comparative with never married parents. Divorced urban residents who provide childcare to their adult children have 26 times more chances to provide support comparative with the same reference category. In Bulgaria things are different, parents who live in rural are more likely to be the providers if they had never been married. If they are divorced they show higher odds than married or widowed. On the other hand, in urban areas the odds are higher for all other marital status categories than the reference one. Divorced grandparents have the greatest chances to offer this type of intergenerational support. In rural areas from Bulgaria, it can be seen that grandparents who co-reside with their nephews are more likely to be involved in childcare informal transfers, while in urban settlements the situation is opposite. In Romania, co-residency of grandparents with their descendants has no statistical significance. Number of children of grandparents is another variable with very low significance. However, Table 2 shows that in rural Romania more children decreases the chances to provide support, while in urban places parents with two children have twice chances to offer support than those with only one adult child. For Bulgaria, rural parents with three and more than three adult children show almost four times higher odds to provide support compared with parents who have one adult child alive. In urban Bulgaria the situation is quite opposite because parents have 70% less chances to offer childcare support to their offspring. For rural Romania, having more young nephews means that the odds are higher for childcare support provided by grandparents while for urban old generation the increase in number of grandchildren under 14 results lower odds of giving support. Apparently, in the case of Bulgaria this variable is not significant for logistic regression analysis presented above.

7. 2. 2. *Effects of norms and attitudes*

Majority of parents have positive opinions about parental responsibility regarding childcare. In Bulgaria the main part of respondents who agree that childcare is the task of grandparents live in urban areas while in Romania the percentage is higher in rural (see Table B5 from appendix). As in the previous case, family is considered as the principal institution responsible for providing

childcare, especially in urban Bulgaria and rural Romania, where the percentages are higher. In Bulgaria there are 59% of parents respondents, 38% from urban and 21% from rural who have more trust in family, while 38% of parents, 26% from urban and 12% from rural believe that family and society are equally responsible. In Romania 89% of parents give to family the task for ensuring intergenerational childcare transfers (see Table B6 from appendix).

For the generation of the parents we have a better regression model than the model presented above for adult children generation. Third regression model from Table 2 shows that Bulgarian grandparents are most likely to provide childcare if they believe that society and family have equal responsibilities for caring young children. Still, family seems to be more close to reference category than society, so if society is preferred, grandparents will have the lowest chances to be the providers of support. Positive opinion about parental obligation leads to the more chances of providing intergenerational help for Romania and rural Bulgaria. In rural areas in the two countries, parents who receive financial support from their adult children have the highest odds to provide in turn childcare for their nephews (four and a half more chances for Bulgaria and twice more chances for Romania). In urban areas, emotional support is the only significant and has the highest odds compared with other three situations. Emotional support is also important in rural places but less than financial help.

Table 2. Results of logistic regression analysis for childcare provided by parents to their adult children

Categories	Romania					Bulgaria				
	Rural area		Urban area			Rural area		Urban area		
Gender (male =ref)					2266					1695
female	1.811	***	1.787	***	2426	1.680	*	1.491	***	1708
Age (50-60 =ref)					1950					1351
61-70	0.586	***	0.782		1559	0.435	**	1.146		1230
71-80	0.357	***	0.214	***	1183	0.128	***	0.482	***	822
Level of education (low =ref)					2642					1394
medium	0.513	***	2.084	***	1698	0.507	**	2.519	***	1358
high	0.078	**	1.398		352	0.384	**	2.234	***	651
Type of settlement under 15 year (urban =ref)					3841					2109
rural	4.280	***	0.684	**	851	4.367	***	0.770	*	1294
Occupational status (employed or self-employed =ref)					1064					940
retired	1.406	+	2.449	***	3628	0.986		0.875		2463
Nagelkerke R^2	0.073		0.070		-	0.095		0.060		-
Second Model										
Marital status respondent (never married =ref)					5					16
married	0.423		2.365		219	0.229	**	4.361	**	207
divorced	0.037	**	26.923	**	9	0.086	**	11.586	**	9
widowed	0.503		1.989		52	0.149	***	6.718	***	36
Living arrangement of respondent (non-co-resident =ref)					199					202
co-resident	1.183		0.845		86	1.997	**	0.501	**	66
Number of children (1 = ref)					38					23
2	0.452	*	2.211	*	101	1.811		0.552		185
3 and more	0.930		1.075		146	3.793	*	0.264	*	60
Number of grandchildren under age 14 (2 = ref)					101					108
3	1.873	*	0.534	*	63	1.497		0.668		75
4 and more	2.476	**	0.404	*	121	1.175		0.851		85
Nagelkerke R^2	0.154		0.145		-	0.142		0.142		-
3th Model										
Responsible institution for providing childcare (both equally=ref)					619					1977
society	0.000		0.000		36	1.518		0.271	**	163
family	1.108		0.860		5346	0.838		0.789	**	3077
Parental obligation for providing care (no opinion = ref)					1007					866
positive opinion	2.726	***	1.883	***	4786	1.683		1.441	**	3957
negative opinion	1.656		0.708		208	0.608		0.675		394

Categories	Romania					Bulgaria				
	Rural area		Urban area			Rural area			Urban area	
Support received from adult children (no support received =ref)					4493					2595
practical	1.519	*	1.794	**	410	1.306		1.277		1207
financial	2.121	**	0.818		125	4.622	**	1.650		45
emotional	1.809	***	2.364	***	973	1.788	**	2.482	***	1370
Nagelkerke R^2	0.024		0.029		-	0.020		0.038		-

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$ for p<0.15.
Source: GGS database, author calculations

8. Discussion

In line with our hypotheses, I found that in terms of intergenerational practical transfers, personal care is most often provided by adult children while childcare is most often provided by grandparents. Frail health condition common for elderly persons increases the risk of needing personal assistance among parents. Furthermore, due to the lack of specialized organizations, family has to take the responsibility of caring. Grandparents are a viable solution to look after grandchildren when the parents are away from home. Most often young generation resort to informal support from grandmothers because of their financial impossibility to afford professional childcare services. Differences between rural and urban areas seem to be almost insignificant, probably because of structural factors that affect the entire population. Still, as we have seen, intergenerational support is influenced by a wide range of characteristics of providers and beneficiaries.

The results also revealed the kin-keeper role of women. Grandmothers living in rural areas show higher odds to offer support than grandmothers from urban areas, while the situation for adult daughters is opposite. Therefore, the second hypothesis is only partial confirmed. A constantly pattern about the difference between men and women who are involved in intergenerational transfers is that men usually provide help "outside" the house (repairs, maintenance, gardening), while women take the responsibilities from "inside" the house, such as providing care (Brandt et al. 2009). Rural-urban disparities are caused by the fact that specialized institution like nurseries or day-cares centres which provide full time services don't exist in rural areas , so grandparents are the only source of help when parents are away from home. Regarding personal assistance adult daughters show higher odds to provide help in rural areas than in urban. This can be considered a result of stronger ties between community members in rural areas comparative with urban.

Therefore, the possibilities of receiving informal care are not reduced to family members but also to neighbours or other close persons.

The third hypothesis concerning level of education is confirmed only for rural Romania, since for rural Bulgaria level of education was not statistical significant. In urban settlements the chances increase at the same time with educational attainment. The low odds to provide intergenerational support among high educated people from rural area are caused by difficult access to university studies. Also, majority of rural residents work in agriculture or in factories nearby cities, so education is not a priority for them. However, in urban areas the situation is different. Access to higher education is easier and employers demand skilled labour force. Moreover, we found that for both generations the odds for high educated responders are bigger in urban Bulgaria comparative with urban Romania. According to national statistics provided by Eurostat, in the period when GGS was conducted, in Bulgaria 17.9% of population has attained tertiary education, while in Romania only 9.1% of population aged 15-64 has obtained university diploma.

As it was predicted, old generation display the highest odds to provide support at early ages, whereas, younger generation provide help at older age. Informal childcare is provided by younger group of grandparents because among other, they have better health condition. Additionally, since at older ages health is more fragile and the need for help is constantly increasing, parents have all the chances to be the beneficiary of support provided this time by their middle aged children. The fifth hypothesis regarding place of birth was partially confirmed. Our findings showed endeed that adult children who were born in rural areas and moved into urban areas have fewer chances to offer support than those who stayed in the rural places. Yes, it seems that the same thing happens to parents, so we cannot say that all parents who were born in rural have more chances to provide support no matter their actual type of settlement. Another equally plausible explanation is that non-migrants respondents are more likely to be involved in intergenerational time-consuming transfers.

Contrary to previous results, our findings indicate that unmarried persons (never married, divorced or widowed) are more likely to be the insurer of care than married persons. For the case of young generation, I also showed that parents who co-reside with adult children have more chances to benefit of support from their offspring. Moreover, if there are more residents in the respondent's household the chances gets smaller. In consequence, we can conclude that adult daughters are more likely to provide intergenerational personal assistance if they reside only with old and diseased parents (usually

mothers). This situation can be seen as a result of the fact that both dyads have old ages and no other close relative alive or available to offer support. The things are different for the second generation, of the elderly. This time, only in rural areas never married or divorced mothers who live in the same household with old parents are more likely to receive childcare form grandparents. Due to the fact that young mothers without a partner with whom to share the responsibilities and who didn't moved from parent's home because of poor financial status will be more likely to benefit from childcare support provided by grandparents. For Romania our regression model showed that in rural area the odds among grandparents to provide support increase with the number of grandchildren, while in urban the situation is opposite. The reason why this happens might be an effect of dwelling type and size and also of spatial proximity. Obviously, the small apartments from cities and the large distance between households constrain the grandparents to offer their services to adult children. Hence our results were not the same with our predictions; we cannot fully confirm the hypothesis concerning living arrangements and characteristics of family constellation.

For adult children's generation the logistic regression analysis shows that there is no statistical significance for attitudinal variables in both countries. Even if the odds are higher for positive opinions towards family and family members' obligation, we cannot confirm or infirm the hypothesis. In what concerns short term reciprocity, we can only take into account receiving practical support in the household. In this situation, adult children who benefit from this kind of help from parents show lower odds to offer in turn their services of providing care. The very simple explanation is that parents who provide help have no major health problems and they do not need personal assistance. Old parents who need regular care cannot provide practical support due to their health condition. Because the other categories of support were not statistically significant for our analyses we cannot fully invalidate the last hypothesis.

On the other hand, for parent's generation I obtained more statistical significant data. I showed for both countries that positive opinion about parental obligation increases the chances among parents to offer intergenerational childcare support especially in rural areas. The way in which parents behave may be also a result of their attitudes and internalized norms. Higher figures in rural are a sign that values could more traditional. The principle of reciprocity also seems to influence intergenerational transfers from the perspective of parents. Rural parents who benefit financial support are more inclined to provide instrumental support as a form of paying back the

money received. Even if they can produce food for themselves by making agriculture, the amount of money received from the state after retirement is very low, so they involve in intergenerational transfers of time and money. In urban places what matters the most in emotional support. If the two generations are linked by strong affective bonds, they will most likely be available for providing support. When both generation are high educated and money is not a problem, they give greater importance to emotional relationship rather than to other types of exchange. Therefore, the hypotheses regarding attitudes and reciprocity are confirmed for the elderly.

9. Conclusions

This paper is one of the few recent investigations of intergenerational solidarity in Romania. This approach provides in-depth information about practical transfers within extended family members in two different contexts related to the type of settlement from Romania and Bulgaria. After the results were presented, we conclude that there are more similarities between the same types of residence for the two countries studied than between different types of residence within a country. In other words, the differences between rural and urban show almost the same patterns for both Romania and Bulgaria. Disparities between generations are visible only in terms of age, opinions and receiving help. Otherwise, both adult children and parents are more likely to be the providers of support if they are women with low education in rural and higher education in urban, who live in the same household with the beneficiary of support and have no partner or spouse.

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References

Bawin-Legros, B., Stassen, J. F. (2002). "Intergenerational Solidarity: Between the Family and the State". *Current Sociology* 50(2): 243 – 262.

Bengtson, V.L., Rosenthal, C.J., Burton, L.M. (1990). "Families and ageing: Diversity and heterogeneity". In Binstock, R.H., George, L. K. (ed.). *Handbook of aging and the social sciences*. 3rd ed. New York: Academic Press, pp. 263–287.

Bianchi, S.M., Hotz, J.V., McGarry, K.M., Seltzer, J. A. (2006). *Intergenerational Ties: Alternative Theories, Empirical Findings and Trends, and Remaining. California Center for Population Research*. Los Angeles: On-Line Working Paper Series,

Brandt, M., Haberkern, K., Szydlik, M. (2009). "Intergenerational Help and Care in Europe". *European Sociological Review* 25 (5): 585-601.

Cooney, T.M., Dykstra, P. A. (2013). "Theories and their empirical support in the study of intergenerational family relationship in adulthood". In Fine, M.A., Fincham, F.D. (ed.) *Handbook of family theories: A content-based approach*. New York: Routledge/ Taylor and Francis, pp. 356-378

Coward, R.T., Dwyer, J.W. (1990). "The Association of Gender, Sibling Network Composition, and Patterns of Parent Care by Adult Children". *Research on Aging* 12 (2): 158-181.

Dykstra, P.A., Van den Broek, T., Mureşan, C., Hărăguş, M., Hărăguş, P.-T., Abramowska-Kmon, A., Kotowska, I.E. (2014). *State-of-the-art report: Intergenerational linkages in families*. (Preprints, Families And Societies Working Paper Series, no 2103(1). http://www.familiesandsocieties.eu/wpcontent/uploads/2014/12/WP01DykstraEtal2013.pdf: FP-7 funded project "Changing families and sustainable societies: Policy contexts and diversity over the life course and across generations". Deliverable 7.1.

Dinkel, R.M. (1944). "Attitudes of children toward supporting aged parents". *American Sociological Review* 9 (4): 370-379.

Fokkema, T., Ter Bekke, S., Dykstra, P. A. (2008). *Solidarity between parents and their adult children in Europe*. Den Haag: Netherlands Interdisciplinary Demographic Institute (NIDI reports; 76).

Ghysels, J. (2011). *The provision of informal childcare by European grandparents: Constraints versus selective preferences*. Antwerp: Herman Deleeck Centre for Social Policy (CSB Working Papers; 11/08).

Guzman, L. (2004). *Grandma and Grandpa Taking Care of the Kids: Patterns of Involvement*. Washington D.C.: Child Trends (Child Trend Research Briefs; 2004-17).

Hank, K., Buber, I. (2009). "Grandparents caring for their grandchildren: Findings from the 2004 survey of health, ageing and retirement in Europe". *Journal of Family Issues* 30(1): 53-73. doi:10.1177/0192513X08322627.

Herlofson, K., Hagestad, G., Slagsvold, B., Sørensen. A.M. (2011). *Intergenerational family responsibility and solidarity in Europe*. Multilinks deliverable 4.3, www.multilinks-project.eu.

Jappens, M., Van Bavel, J. (2012). "Regional family norms and childcare by grandparents in Europe". *Demographic Research* 27 (4): 85-120.

Kalmijn, M., Saraceno, C. (2008). "A comparative perspective on intergenerational support: Responsiveness to parental needs in individualistic and familistic countries". *European Societies* 10: 479-508.

Keck, W., Hessel, P., Saraceno, C. (2009). *Multilinks Database on Intergenerational Policy Indictors: Methodological Report*. Berlin: Social Science Research Center Berlin.

Leopold, T., Raab, M. (2011). Short- Term Reciprocity in Late Parent - Child Relations. *Journal of Marriage and Family*: 73 (1): 105-119.

McGarry, K. M. (1998). "Caring for the Elderly: The Role of Adult Children". In Wise, D.A. (ed.). *Inquiries in the Economics of Aging*. Chicago: University of Chicago Press: 133-163.

Mureşan, C. (2012). *Schimbările comportamentului familial în România: o abordare din perspectiva cursului vieţii*. Cluj Napoca: Presa Universitară Clujeană.

Puur, A., Põldma, A., Sakkeus, L., Herm, A. (2011). "Intergenerational family constellations in contemporary Europe: Evidence from the Generations and Gender Survey". *Demographic Research* 25 (4): 135-172.

Rossi, A. S., Rossi, P. H. (1990). *Of human bonding: Parent-child relations over the life course*. New York: Aldine de Gruyter.

Silverstein, M., Conroy, S.J., Gans, D. (2012). "Beyond solidarity, reciprocity and altruism: moral capital as a unifying concept in intergenerational support for older people". Ageing and Society 32 (7): 1246-1262. doi: 10.1017/S0144686X1200058X.

Viazzo, P.P. (2010). "Family, kinship and the welfare provision in Europe, past and present: Communalities and divergences". *Continuity and Change* 25 (1): 137-159.

Kulcsár, L.J., Brădăţan, C. (2014). "The Greying Periphery—Ageing and Community Development in Rural Romania and Bulgaria". *Europe-Asia Studies* 66 (5) DOI: 10.1080/09668136.2014.886861.

Appendices

Appendix A

Table A1. Main characteristics of samples and sub-samples used in analysis

Country	Total Sample	Survey year	Adult children sub-sample			Parents Subsample		
			Rural	Urban	Total	Rural	Urban	Total
Bulgaria	12858	2004	2462	6648	9110	1796	3438	5234
Romania	11986	2005	2736	3936	6672	3139	2862	6001

Source: GGS database, author calculations

Appendix B

Table B1. Intergenerational practical help given upwards and downwards for the case of Romania and Bulgaria (percentage)

Sub-samples	Type of help given	Romania				Bulgaria			
		Total	Type of settlement		φ	Total	Type of settlement		φ
			Rural	Urban			Rural	Urban	
Adult children	Care giving (to parents)	3.3	1.3	2.0	0.007	3.8	1.1	2.7	0.011
	Childcare (to parents)	0.2	0.1	0.1	0.018	0.2	0.1	0.1	0.335
	N	6672	2736	3936	-	9110	2462	6648	-
Parents	Care giving (to adult children)	0.6	0.3	0.3	0.005	0.6	0.2	0.4	0.010
	Childcare (to adult children)	7.1	3.5	3.6	0.014	7.8	1.9	5.9	*** 0.060
	N	6001	3139	2862	-	5234	1796	3438	-

Note: level of confidence: *** for $p<0.01$, ** for $p<0.05$, * for $p<0.1$, $^{+}$for $p<0.15$.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Table B2. Opinions about filial responsibility regarding personal assistance (percentages)

Opinions	Bulgaria				Romania			
	Rural	Urban	Total	φ	Rural	Urban	Total	φ
Positive opinion	24.4	66.0	90.3	0.018	36.5	51.8	88.2	0.020
Negative opinion	0.3	1.1	1.4		0.7	1.0	1.7	
No opinion	2.4	5.9	8.3		3.8	6.2	10.1	
N	2455	6637	9092		2736	3936	6672	

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$for p<0.15.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Table B3. Opinions about filial responsibility regarding co-residency with ill parents (percentages)

Opinions	Bulgaria				Romania			
	Rural	Urban	Total	φ	Rural	Urban	Total	φ
Positive opinion	22,3	58,6	80,9	0.027	30,4	40,1	70,5	0.067
Negative opinion	0,7	2,5	3,2	**	2,0	3,8	5,7	***
No opinion	4,0	11,9	15,9		8,6	15,1	23,7	
N	2451	6629	9080		2736	3936	6672	

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$for p<0.15.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Table B4. Opinions about the institutions responsible for providing care to old persons (percentages)

Responsible institution	Bulgaria				Romania			
	Rural	Urban	Total	φ	Rural	Urban	Total	φ
Family	11,9	31,7	43,6	0.037	29,2	39,4	68,6	0.050
Society	5,0	11,6	16,5	***	3,9	6,0	9,9	***
Equally for both	10,1	29,8	39,9		7,8	13,6	21,4	
N	2454	6637	9091		2736	3936	6672	

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$for p<0.15.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Table B5. Opinions about parental responsibility regarding childcare (percentages)

Opinions	Bulgaria				Romania			
	Rural	Urban	Total	φ	Rural	Urban	Total	φ
Positive opinion	26,9	48,9	75,8	0.067 ***	43,4	36,3	79,8	0.085 ***
Negative opinion	1,8	5,8	7,6		1,5	2,0	3,5	
No opinion	5,7	10,9	16,6		7,4	9,4	16,8	
N	1792	3427	5219		3139	2862	6001	

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$for p<0.15.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Table B6. Opinions about the institutions responsible for providing childcare (percentages)

Responsible institution	Bulgaria				Romania			
	Rural	Urban	Total	φ	Rural	Urban	Total	φ
Family	20,8	38,2	59,0	0.028 +	47,6	41,5	89,1	0.077 ***
Society	1,1	2,0	3,1		0,4	0,2	0,6	
Equally for both	12,4	25,5	37,9		4,3	6,0	10,3	
N	1791	3431	5222		3139	2862	6001	

Note: level of confidence: *** for p<0.01, ** for p<0.05, * for p<0.1, $^{+}$for p<0.15.
φ = Pearson's contingency coefficient
Source: GGS database, author calculations

Social Predictive Factors of Health Risk Behaviours Among Adolescents from Romania

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Abstract: Adolescent population and health of adolescents is a very special issue and is focus of attention globally for various reasons. The world today is home to the largest generation of 10–19 year old in our history and number over one billion and their population is continuously increasing. Adolescents need to be treated as a distinct segment of our population and it is important to realize and address their health and lifestyle problems. Adolescence is characterized by a strong tendency to experiment with risk behaviour. The desire for novelty and the courage for experiment are much greater in adolescence than in later life. Most commonly reported behaviours in this population include such as aggressive behaviour, smoking and drinking alcohol, sexual behaviour, poor eating habits, lack of physical exercise, etc. Adolescent health provides the foundation for adult health status. Life-long patterns of healthy behaviours are established at this time.

Unhealthy adolescent behaviours can become long-term risk factors for chronic health conditions in adulthood. The health of adolescent is shaped by: parents and families, peers, school, health care systems, neighbourhoods and communities, faith communities, employers, government. These factors impact young people's sense of health and well-being by affecting their capacity to withstand life stressors, their ability to transition in developmentally appropriate ways, and their ability to make decisions about healthy behaviours. The study was carried out under the supervision of the National Institute of Public Health, Romania, Regional Center for Public Health Cluj for the year 2012 on a sample of 4691 school-aged children from 40 Romanian counties.

Keywords: adolescence, health risk behaviour, predictive factors, lifestyle

1. Introduction

Lifestyle is a strategic option of each individual, a choice that will shape any decisions, actions and way of living, in which case any risk taken is self-assumed, as it is based on every person's own values and norms.

Lifestyle, on the other hand, bears the characteristics of the community in which the adolescent was raised and is responsible for more than half of the potential years of life lost at population level. It is important to keep in mind that the foundations laid during adolescence in terms of health, education and skills will have profound implications for social and economic development of a country (Sawyer et al. 2012: 1630-1640).

The health problems and health-related behaviours that arise during adolescence shape adult health, with important implications for public health. Many of the non-communicable diseases of the adult years arise from behaviours that start or are reinforced in adolescence, including tobacco use, harmful use of alcohol, unhealthy diets and physical inactivity.

Centers for Disease Control, United States has defined, in 1988, the hexagonal structure (*Chronic Disease and Health Promotion* 1990) of the risky lifestyle: behaviours that contribute to unintentional injuries and violence; tobacco use; alcohol and other illicit drug use; sexual behaviours that contribute to unintended pregnancy and sexually transmitted infections; unhealthy dietary habits; physical inactivity. The implication of risk behaviours for health is the object of numerous studies.

The 1974 Lalonde Report (Glouberman, Millar 2003: 388-392), inspired by the works of Thomas McKeown (1979) recognized that determinants of health went beyond traditional public health and medical care and argued for the importance of socio-economic factors, stating that lifestyle and environment contribute with almost 90% to the health status of the population, while health care and organization contributes with only 10%, whether we refer to more developed or less developed countries. In 1999, Green and Ottoson (1999) structured the determinants of health slightly different, but emphasized the same importance of human behaviour for maintaining and improving health: 51% lifestyle, 19% environment, 20% human biology and 10% the health system.

According to OECD analyses (Zamfir and Zamfir 1995), the discrepancy between the health indicators of Western developed countries and Romania is due, in a proportion of 30%, to the socio-economic gap, in a proportion of 50%, to the risk factors for health generated by lifestyle, 10% to pollution and 10% to poor medical services.

No matter the sources of information, human behaviour dramatically influences human health. Taking into consideration the constancy of the genetically determined biological factor, and also the financial difficulties of certain communities, one of the main goals aiming at improving the health status of the population must be targeting the behaviour areas of lifestyle risks.

Before acting, we need to know. This paper focuses on additional risk factors for adolescent health, risk factors deriving from the social area of adolescent environment.

2. Adolescence

Adolescence is the life stage where we can identify a risky lifestyle in the definitive development of each individual's personality (Lupu, Zanc 1999). From a behavioural perspective, adolescence is characterized by intellectual development and social integration. Age is a convenient way to define adolescence (United Nations Children's Fund 2011) but it is only one characteristic that delineates this period of development (Canadian Paediatric Society 2003: 577). Adolescence is the height of human development (Birch 2000) it is the period in which we can speak about a second birth of the person (Șchiopu 1997) as it constitutes the stage in which every human being passes through a complex process of formation. Healthy, educated, skilled adolescents are important not only for the future but also for the present. They are a key asset and resource, with great potential to contribute to their families, communities and countries. Over the years the recognition has grown that adolescents are actors in social change, not simply beneficiaries of social programmes (*United Nations Population Fund* 2012).

The idea of adolescent development necessarily being tumultuous has somehow changed nowadays. Rather than seeing adolescence as a period of angst and rebelliousness, the importance of this transition from childhood into adulthood has gained a more formal recognition (Wolfe, Jaffe, Crooks 2006). Many adolescents pass through this life transition with few major disruptions or sustained high-risk behaviours. Therefore, most (but not all) adolescents maintain their relationships with their parents and siblings while they add new relationships and identities and thus require minimal assistance in managing new risks. It is well acknowledged that teens who do experience major problems or consistently engage in risk behaviours are in trouble now and have a significantly greater chance of being in trouble later in life (Burt, Zweig, Roman 2002).

From a developmental perspective, the processes of attachment (in the young child) and independence (in the teen) are both important to the well-being, requiring some input and direction from the environment. The greatest categories of risk during adolescence include substance use, unsafe sexual behaviour, school failure and drop-out, and delinquency/crime/violence (Lerner 2002). Not surprisingly, the leading causes of death among youth stem from accidents and violence resulting from high-risk behaviours. For youth to

make healthy and adaptive choices, their home, community, and societal structures must be supportive. The critical role of adults is to provide access to information and learning opportunities, facilitate relationships and enhance participation in organizations, and actively engage youth in decision making on issues pertinent to their lives. An important part of understanding the adolescent landscape is grasping the extent of rapid change and new pressures that pose risks to their well-being.

More than any other stage of development, adolescence seems like an endless series of crises. These crises, of course, are an extension of familiar adaptive processes that offer opportunities for growth, much like the first day of school or the first night away from one's parents. However, for the adolescent, these new challenges come in the form of overwhelming life events and catastrophes, with each one seemingly unconnected to the others. The resolution of these crises often depends on relationships, namely whom teens turn to and what kind of information they receive. Adolescence is filled with milestones to celebrate as well as minefields to avoid, with a slim margin for error. The essential challenge in raising adolescents is to acknowledge the rapid changes they are going through and be prepared to renegotiate the nature of their previously established relationships. In effect, it is the fundamental nature of the previous parent-child relationship (Richter, Erhart, Vereecken, Zambon, Boyce, Nic Gabhainn 2009a: 396-403).

On his way to maturity, the first educational instance that the teenager will turn to is the family, who should provide a safe space where any lessons learned inside or outside home will facilitate (or not) a healthy development and proper behaviour. It is in the family environment, that small democratic structure(Jurcău 2000), that he or she will learn respect and recognition. School, backed by the community, should also guide the adolescent in his socialization process by offering patterns of good behaviour.

The fact that risk behaviour starts and/or occurs particularly often in adolescence, suggests a strong linkage with the psychosocial development of adolescents (Klein-Hessling, Lohaus, Ball 2005: 31-43). When taking into account the fact that psychosocial risk has to be conceptualised within a specific period of life with its peculiar developmental tasks, it is important to consider the socialisation process of adolescents. Generally speaking, this process can be viewed as 'successful' when young people manage to cope with a multitude of developmental tasks and transitions and thus combine the requirements of individuation and integration with each other (Hurrelmann, Richter 2006: 20-28).

A lot of research has been carried out by specialists of various fields: psychology, sociology, anthropology, medicine to determine what makes this stage of life to seem so different from others. The problem is that all work was done to discover what adolescence is, and not who adolescents are. All strategies and programmes provide actions and measures that address an age, and not individuals (Tremblay, Hartup & Archer (eds.). 2005). Adolescence, for the most part, had long been viewed in association with danger, rebelliousness, crime, sex, and threats to the well-being of society (Hamburg, Takanishi 1996: 379–396), but the well-being of adolescents was not taken into account. It may be true that adolescence is a period of greater risk than any other in terms of academic failure, violence, and health-compromising behaviours, but it is, at the same time, a period of tremendous opportunity for establishing the skills and values needed for adult life. This period of development has always been challenging, with ups and downs, as teens seek their independence from their families and establish their own self-identities. The beginning of the 21st Century witnessed a considerable effort expended to understand adolescent development and to begin to address some of the large gaps in education and services.

When studying health status of adolescents, six categories of priority health-risk behaviours among youths and young adults are being investigated: 1) behaviours that contribute to unintentional injuries and violence; 2) sexual behaviours; 3) tobacco use; 4) alcohol and other drug use; 5) unhealthy dietary behaviours; and 6) physical inactivity. In the determinism of these behaviours there are 6 common characteristics that predict future behavioural problems: age, school performance, religiosity and family support, general behaviour and peers, living conditions. Each of these predictive factors can be involved in the teenager's lifestyle choice:

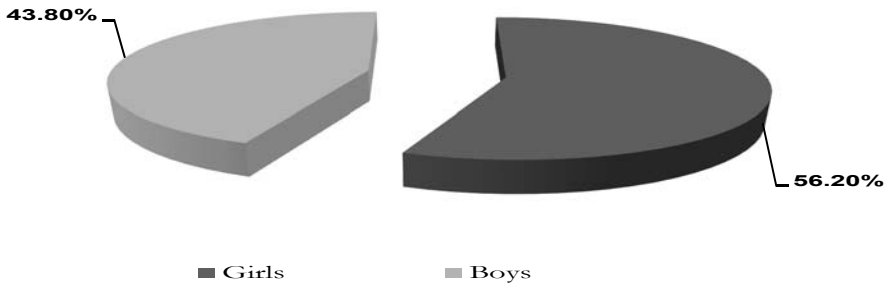
- Early age of the health risk behaviour onset;
- Poor school performance and lack of goals;
- Antisocial behaviour;
- Low resistance to peers' influences;
- Lack of parental support;
- Living in poor neighbourhoods.

Other variables often associated to health risk behaviours are low socio-economic status of the family, parents' health risk behaviours, lack of education in the family, isolation, etc.

3. Methodology

Data from surveillance systems are critical for planning and evaluating public health programs. Public health surveillance, monitoring, planning and assessment are carried out in Romania through National Health Programmes. The Regional Center of Public Health from Cluj of the National Institute of Public Health from Romania collects data regarding the health status of adolescents from Romania and the health risk behaviours of this particular population, as part of one of the national health programmes, namely The National Health Programme for Health Promotion and Health Status Evaluation. The methodology of the study was established in 1999, in cooperation with the Centers for Disease Control, Atlanta, USA. The study is carried out according to the Youth Risk Behaviour Surveillance System (YRBSS), adapted for our country[1]. The system was designed to enable public health professionals, educators, policy makers, and researchers to 1) describe the prevalence of health-risk behaviours among youths, 2) assess trends in health-risk behaviours over time, and 3) evaluate and improve health related policies and programs. YRBSS also was developed to provide comparable national school data. The survey is carried out on a biennial basis. The questionnaire[2], adapted for Romanian students, is self administered in schools. The population sample is selected according to sampling procedures used by our institution in order to obtain a gender, age and residence representative sample.

Figure 1. Gender structure of the sample



[1] For details regarding methodology see http://www.cdc.gov/mmwr/pdf/rr/rr6201.pdf.
[2] For details regarding YRBSS questionnaire see http://www.cdc.gov/healthyyouth/yrbs/pdf/questionnaire/crosswalk_1991-2015.pdf.

Figure 2. Sample distribution according to school level

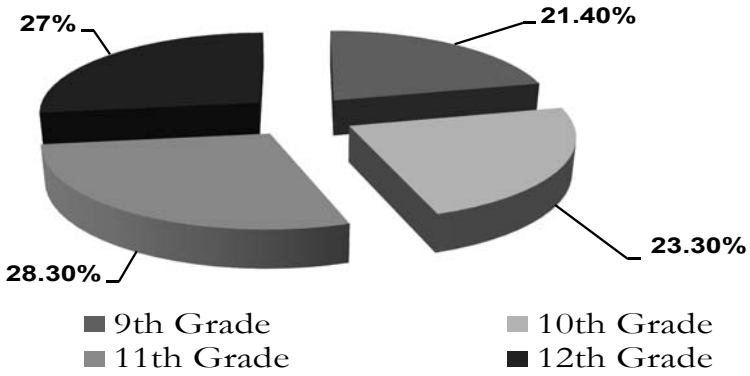
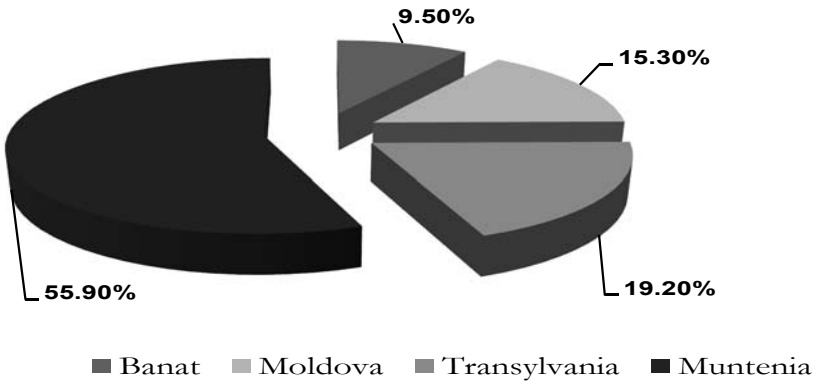


Figure 3. Sample distribution according to geaographic region



The present study was carried out on the same sample as the routine study and the questions to assess the social predictors for health risk behaviors were added to the YRBSS questionnaire used in Romania. The sample consisted of 4808 high school students from 40 Romanian counties and Bucharest.

The students were given the YRBSS questionnaire that had the additional questions. The answers were recorded on the same paper and were introduced in the FoxPro data base. The analyzed data is than transferred into Excel tables.

4. Results

4. 1. School performance

In a hierarchy of high risk behaviour predictive factors school performance was on the second place, following age.

Health-related factors such as hunger, physical and emotional abuse and chronic illness can lead to poor school performance (Dunkle, Nash 1991). Health-risk behaviours such as early sexual initiation, violence, unhealthy eating, and physical inactivity are consistently linked to poor grades, test scores, and lower educational attainment (Srabstein, Piazza 2008: 223–233). For many young people, school success is often hampered by lots of personal, social, familial, economic, and health-related problems that place them at increased risk of school failure and involvement in negative health-risk behaviour. Adolescents who engage in high-risk behaviours have difficulty with problem solving, decision-making, and recognizing the consequences of their actions (Ward, Linke 2011: 53-56).

In our study, school performance was assessed based on the the high school students' investigated self-perception regarding their academic achievements.

At the national level, 31,47% of the interviewed students had self assessed as having a good school performance (Table 1). As to what regards the gender distribution, girls showed a better school performance as compared to boys.

Table 1. Distribution of high school students from Romania, according to school performance

Gender	School performance	
	Good	**Mediocre**
Girls	33.22%	62,23%
Boys	28.59%	64.44%
Total	31.47%	63.06%

Most of the students were included in the mediocre and poor school performance categories with a total of 68,53%, of which 66,78 % females and 71,44 % males.

The distribution of pupils according to school performance, stratified by geographic regions showed the best school performance in Transylvania, and the worst in Muntenia (see Table 2).

Table 2. Distribution of high school students from Romania, according to school performance and geographic region

Geographic region	School performance	
	Good	**Mediocre**
Banat	28,52	63,18
Moldova	30,43	64,16
Muntenia	29,7	65,27
Transylvania	36,87	58,25

Stratified analysis of the data according to age, gender and geographic region reveals that, at the national level, 41,48% of the boys and 39,20% of the girls (Table 3) assess themselves as having a good school performance. What needs to be emphasized is that school performance increases towards 12th grade, probably due to an increased interest in studying in order to prepare for the final exams and university.

Table 3. Distribution of high school students from Romania (%), according to school performance and age, gender and geographic region

Grade	**Gender**	**Geographic area**			
		Banat	**Moldova**	**Muntenia**	**Transylvania**
9th	Girls	38,16	41,18	36,89	45,10
	Boys	41,67	49,30	38,31	41,86
10th	Girls	39,66	44,12	39,95	41,82
	Boys	37,14	45,65	31,89	33,65
11th	Girls	44,44	46,97	46,82	37,50
	Boys	52,27	49,25	38,21	42,53
12th	Girls	36,71	52,82	47,45	42,13
	Boys	40,91	36,84	44,44	55,17

Our study also revealed a strong connection between school performance and aggressive behaviour in teenagers (Table 4). More than one out of ten high school students reported frequent acts of aggression. Pupils with good school performance showed prevalence two times lower of violent incidents when compared to those with poor academic achievements. It may be possible that lower academic performance results in feelings of stress or lower self-esteem and the engagement in risk behaviours could be a way for these adolescents to try to relieve these feelings. It is also possible that both lower academic performance and higher rates of health risk behaviours are the result of other risk factors. Therefore, further study is needed to understand the complex constellation of multiple factors that end in adolescents' choice of risky behaviours.

Table 4. Distribution of high school students from Romania, according to school performance and aggressive behaviour

School performance	Frequency of violent incidents	
	Never	**1-3 times/year**
Good	71%	23.4%
Medium	70.5%	20.4%
Poor	63.4%	24%

School psychologists can provide advice for parents and teachers to identify early warning signs among this particular age group. School counsellors can design individual or small-group counselling or other interventions for high-risk students. The school-based behaviour education programs can teach adolescents problem-solving and decision making skills, which will diminish their engagement in risk behaviours. Regardless of the prevention or intervention strategies implemented, student progress should be monitored over time to determine if the identified risk behaviours have decreased (Jiang, Mermin, Perry, Hesser 2013: 44-51).

4. 2. Religiosity

Teens who say that religion is important in their lives and/or attend church services frequently are less likely than their peers to engage in risky behaviours. Compared with peers, youths who said religion was important in their lives and/or attended religious services frequently were less likely to smoke, use alcohol, be sexually active, use marijuana, or report feelings of depression, even

when controlling for family background variables and self-esteem (Sinha, Cnaan, Gelles 2007: 231–249). A large majority of studies (Wallace, Williams 1997: 444-470, Shelley, Tucker Halpern and Tucker Halpern 2001) that have studied religion measures (especially church attendance and importance of religious faith) have found them to be inversely related to juvenile drug, alcohol, and tobacco use, and to delinquency.

Religious adolescents have a higher probability of avoiding risky behaviours and engaging in positive activities. For those teenagers it is less likely to enjoy danger and take part in illegal practices. They also have a lower probability of school abandon, expelling or detention (Pearce 2003: 1682–1696).

Research on religion and adolescent sex suggests that highly religious adolescents initiate sexual activity later, have fewer sexual partners, and engage in sex less often than their less religious peers (Holder, Durant, Harris, Daniel, Obeidallah, Goodman 2000: 295-302). Accordingly, they are at lower risk of experiencing the negative physical health problems associated with early sexual involvement (Wallace, Forman 1998: 721-741), although there are studies that indicate that religious teens, which have already started sexual life, are less likely to use contraceptive measures (Brown 2001).

It is important to remember that a good health behaviour includes not only risk avoidance, but also promoting positive practices like healthy eating, regular exercising and participating in volunteer service (Idler 2014: 203-251).

Table 5. Distribution of high school students from Romania, according to frequency of church attendance and gender

	Frequency of church attendance		
	Never	**1-2 times a month**	**Every week**
Girls	25,70	47,53	19,01
Boys	41,24	32,50	14,46
Total	31,57	41,85	17,29

One third of the high-school students from Romania never attend religious events, four out of ten attend church service once or twice a month and only one out of ten goes to church on a regular basis. Girls are, as expected, more religious than boys. The ratio between no and weekly participation in religious events is 1,34/1 for females and 2,85/1 for males.

Table 6. Distribution of high school students from Romania, according to frequency of church attendance and geographic region

	Frequency of church attendance		
	Never	**1-2 times a month**	**Every week**
Banat	34.84	41.94	15,48
Moldova	22.52	51.65	19.7
Muntenia	43.01	38.42	8.24
Transylvania	29.2	37.08	28,47

Most high school students not attending religious events are from Muntenia (38,06%). The best weekly participation was noted in Transylvania (28,47%) and the worst Muntenia (9,53%).

Given the fact that numerous studies have long documented religion's salutary impact on health-related behaviours we also assessed the relationship between religiosity and some of the behavioural areas considered as being most influenced (Table 7).

We defined null religiosity as the situation in which the student doesn't attend any religious events, and optimum religiosity the situation in which the student attends religious services more than 3 times/month.

Table 7. Distribution of high-school students according to religiosity and some behavioural areas

	Geographic region		
	Banat	**Moldova**	**Muntenia**
Null religiosity	22.22	27.54	38.06
Optimum religiosity	25.21	19.1	9.53
Current tobacco use	16.92	24.77	21.77
Alcohol	0.1	0.1	0.42
Sexual active behaviour	24.88	37.02	37.02
Agression	17.58	18.18	22.1
Suicidal behaviour	6.8	2.11	3,1

As seen in Table 7, the lack of religiosity was associated with sexual active behaviour, aggression and suicidal behaviour. Null religiosity is more often noticed in geographic areas where children are in the care of relatives, parents being absent because of working abroad.

Our study showed that out of ten high-school students, two have an optimum religious behaviour, whereas three never go to church. As expected, girls are more religious than boys. When geographical regions are compared, Transylavania seems to have an optimum religiosity, and Muntenia the worst. Suicide attempts seem to be more frequent in the geographic regions where religiosity lacks and there is a tendency to aggressive behaviour. Religiosity is also linked to an appropriate family climate. Several other researchers have identified "lack of religiosity" or "low religiousness" as a risk factor for a number of different problem behaviours (Hawkins, Catalano, Miller 1992: 64-105), and have discovered that religion, in its social, environmental, and behavioural forms, appears to have a salutary impact on health (Donahue, Benson 1995: 145-160). As public health professionals, social workers medicine, teachers, and other helping professions seek to better meet the needs of young people through direct practice, and education, more research needs to be carried out beyond traditional boundaries and pursue the untapped potential that lies in partnerships with religious professionals and religious institutions.

4. 3. Employment and Behaviour

Child labour defines a large range of activities, from those which do not affect the development and health status of children to those that who can be considered as exploitation through work.

Engagement in economic activities at an early age and participation especially in hazardous and exploitative work could have a devastating effect on children's physical and mental development and might also cause irreversible damage (International Labour Organization 2002). Children engaged in such activities are deprived of their childhood and potential by the demands of long hours and exposure to physical, social or psychological stress. Inadequate pay, high responsibility and lack of access to education all contribute to undermining the dignity and self-esteem of children. Apart from being detrimental to the full social and cognitive development of children, child labour is also frequently a cause of physical and emotional abuse.

There is a strong case, both theoretical and empirical, that economic vulnerability associated with poverty, risk and shocks plays a key role in driving children to work (Edmonds, Schady 2012: 100–124). The situation is much

more complex, since the number of children who work is not proportional cu the poverty level (Giorgieva, Burazeri (eds.). 2005).

While working, teenagers are exposed to a diversity of risks for their health. Concern about the health consequences of child labour derives primarily from the belief that work increases the child's exposure to health hazards that threaten to subject the child to illness or injury. The hazards may be obvious and have immediate health consequences, such as those risks arising from the use of dangerous tools and machinery and exposure to high temperatures and falling objects. There are also hazards that may be less perceptible and develop longer-term consequences for health such as risks from contact with dust, toxins, chemicals and pesticides, the lifting of heavy loads and the forced adoption of poor posture. Hazards may also threaten psychological health through exposure to abusive relationships with employers, supervisors or clients (Guarcello, Lyon, Rosati 2004).

Economic vulnerability is an important – but by no means the only – determinant of whether or not teenagers work. Both of the two main sources of economic vulnerability, poverty and shocks, can force households to resort to child labour as a coping strategy. While such a strategy is a response to immediate economic vulnerabilities, it frequently has long-term consequences, as child labour inevitably occurs at the expense of children's education and, following from this, at the expense also of their social development and their likely success in the labour market as adults.

Adolescents represent an important resource for families and communities, not only because of their potential as future adults, but also because of their contribution to the sustainment of the household.

The reasons for which an adolescent engages in work are different. On one hand, the poverty, as stated above, but, on the other hand, they may want to gain some economic independence or develop new relationships. Another category is that of students who may want to help their parents in paying the school taxes.

Behaviours such as the use of licit and illicit drugs and sexual activity, which usually initiate in the transition from childhood to adulthood, are influenced by the social and the cultural contexts, by family and school environment and by relationships with peers (Barreto, Giatti, Martinez Hernaez 2011: 649-655). It is suggested that due to the intensity of work, adolescents have more time for social unwanted activities, and also that they have less time to engage in healthy behaviors and school activities (Safron, Schulenberg, Bachman 2001: 425-449).

Adolescents who worked presented higher chances of smoking, using alcohol and illicit drugs, driving motorized vehicles, having sexual intercourse and being more exposed to violent situations as observed in other studies (Wu Schlenger, Galvin 2003: 5-15). It is important to consider that these behaviours tend to take place simultaneously, so the insertion of one of them would increase the risk for the others, thus potentializing the adverse effects of work among adolescents (Oliveira-Campos, Giatti, Malta, Barreto 2013: 629-635).

In our study, high school students that work for money, still attending school, were divided according to the hours worked per week in four groups: students working 1-10 per week, 11-20 hours/week, 21-30 hours/week and more than 30 hours/week. In Romania the largest "working" group was the one working 1-10/week. There were no students in the fourth category.

Table 8. Distribution of high school students that work for money during school months according to number of hours worked per week and gender

Number of hours worked	Gender	
	Girls	**Boys**
1-10 hours/week	9.80	21.33
11-20 hours/week	1.76	4.54
21-30 hours/week	1.21	2.67
Do not work for money	87.0	71,24

As shown in Table 8, in Romania 2 out of 10 students work for money during school months, with a higher prevalence among boys.

Table 9. Distribution of high school students that work for money during school months according to number of hours worked per week and school grade

Number of hours worked	School level		
	9th grade	**10th grade**	**11th grade**
1-10 hours/week	12.76	14.87	12.18
11-20 hours/week	2.35	2.66	2.84
21-30 hours/week	1.18	1.1	2.04

With regard to age, most of the teenagers engaged in work are 12th graders, with a gradient of 4.19% for the subjects included in the 1-10 hours worked/week group.

Table 10. Distribution of high school students that work for money during school months according to number of hours worked per week and school grade

Number of hours worked	Geographic Region		
	Banat	**Moldova**	**Muntenia**
1-10 hours/week	11.28	12.12	15.16
11-20 hours/week	1.49	3.16	2.72
21-30 hours/week	0.83	0.79	2.35

The gradient of the distribution of high school students working for money 1 to 10 hours a week was up to 3.98 % between Muntenia (the highest percentage) and Banat.

Romania does not seem to have problems with adolescent labour. According to most international regulations teenagers involvement in work less than 20 hours per week could prove to be beneficial for their health status and behaviour.

4. 4. Family Structure

Adolescent health status and behaviour is closely linked to the structure and quality of the family. Adolescence is a pivotal developmental stage in the life span that, based on bidirectional individual–contextual relationships, can result in a successful transition to adulthood or a negative developmental trajectory. Optimal youth development requires a holistic approach that not only considers eliminating/reducing risk behaviours, but also promoting positive development, by providing the necessary resources and support. The family creates one key social environment that promotes compliance to socially sanctioned behaviour (McDermott, Beverley 2012)

In Romania 76.71% of the high school students live together with both natural parents. There is a proportion of 4.72% of teenagers living with their relatives (Table 11). As shown in the table, 1.55 % of the girls and 1.53 % of the boys live only with their fathers.

Table 11. Distribution of high school students from Romania, according to the persons they live with and gender

Family structure	Gender	
	Girls	**Boys**
Both parents	76.16	77.60
Single mother	6.04	7.03
One natural parent and a step parent	7.59	6.69
A natural parent and an adult	3.41	2.95
Relatives	5.07	4.14
Single father	1.55	1,53

The highest percentage of adolescents living with both parents are in Muntenia, 80,57% (Table 12), while the highest percentage of teenagers living with relatives were registered in Moldova, 8.83%, the geographic region where most students who reside only with their fathers were also noticed.

Table 12. Distribution of high school students from Romania, according to the persons they live with and geographic region

Family structure	Geographic region		
	Banat	**Moldova**	**Muntenia**
Both parents	74.30	74.31	80.57
Single mother	4.31	6.85	5.87
One natural parent and a step parent	17.08	5.14	5.07
A natural parent and an adult	1.33	2.11	3.00
Relatives	1.82	8.83	3.89
Single father	0.83	2.77	1.55
Both parents	74.30	74.31	80,57

Parental resources constitute parental involvement, autonomy support, and structure. Parents provide motivation for their children, through techniques that promote independent problem-solving, choice, and participation in decisions (Manning, Smock, Majumdar 2004: 135-159).

Family stability may be more important to a child's outcomes than the specific family structure experienced by the child, but further prospective research needs to be done in Romania regarding this issue, as the number of children living without their parents tends to grow due to the working migration of the active Romanian population.

5. Conclusions

Historically, infectious diseases were the leading causes of sickness and death among world's populations. Today morbidity and mortality result mostly from social, environmental, and behavioural factors proving that there is a shift from biomedical to psychosocial causes of sickness and death. Therefore, researchers have increasingly sought to identify psychosocial factors that protect health. Like general population, the primary threats to adolescent health are no longer biomedical in origin; their source is social, environmental, and behavioural. The social morbidities can be grouped into six general categories: behaviours that result in unintentional and intentional injury, alcohol and other drug use, sexual activity, tobacco use, dietary patterns, and physical inactivity (Levin 1994: 1475-1482). Adolescent health behaviours are key predictors of adolescent and adult mortality and morbidity. At the national level, many young people engage in behaviours that can compromise their physical well-being and that may, in the long run, prove harmful for their health as adults.

Behavioural disorders (Rashad, Kaestner 2004: 493-503)should not be looked upon as illnesses, the individuals that exhibit them can be perfectly healthy and the misconduct might be only the expression of a problematic relationship with the others, whether family or peers. Many adolescents are motivated to engage in risk behaviours to gain peer approval and to feel more confident in social situations, and to establish independence from parental authority.

Unfortunately, lifestyle is one (if not the one) of the main determinants of health status Adolescents experience considerable change as individuals and also in their ecological relationships within this development stage(Bogenschneider 1996: 127-138) and failed attempts at promoting positive development and preventing engagement in risk behaviours can have serious consequences. The repercussions of substance use and abuse, precocious and unprotected sexual intercourse, and academic failure among adolescents can have a devastating effect on their development. It is well known that cigarette smoking is related to lung cancer, other pulmonary diseases, and cardiovascular diseases. Alcohol abuse is a leading ethological factor for liver cirrhosis,

chronic malnutrition, foetal disorders, and brain damage. Impaired eating habits lead to obesity and all its consequences (Currie et al. (eds.) 2012). Pregnancy during adolescence can result in giving birth to an unwanted baby (Godeau et al. 2008: 176–182 eventually neglected and abused. Illegal drug use can be a temporary "cool" experimentation, but addiction is a tremendous problem for the individual, the family and the community.

Numerous studies have investigated a range of social predictive factors for health risks behaviours in adolescence in order to not only identify the major contributors motivating adolescents' maladaptive behaviour, but also the most appropriate interventions needed to help teenagers during this particular developmental stage. Further studies are needed to examine the relation between factors in multiple contexts that promote or deter positive outcomes.

References

Barreto, S.M., Giatti, L., Martinez Hernaez, A. (2011). "Contextual and family factors associated with negative assessment of children's health". *European Journal of Public Health* 21(5): 649-55.

Birch, A. (2000). *Psihologia dezvoltării*. Bucureşti: Editura Tehnică.

Bogenschneider, K (1996). "An ecological risk/protective theory for building prevention programs, policies, and community capacity to support youth". *Family Relations* 45(2): 127-138.

Brown, N. A. (2001). *Promoting adolescent livelihoods*. Commonwealth Youth Programme and UNICEF.

Burt, M.R., Zweig, J. M., Roman, J. (2002). "Modeling the pay offs of interventions to reduce adolescent vulnerability". *Journal of Adolescent Health* 31(1S): 40–57.

Canadian Paediatric Society (2003). "Age limits and adolescence". *Paediatrics & Child Health* 8(9): 577.

*** Chronic Disease and Health Promotion (1990). "Youth Risk Behavior Surveillance System". Atlanta, Georgia: CDC.

Currie, C. et al., (eds).(2012). *Social determinants of health and well-being among young people. Health behaviour in school-aged children (HBSC) study: international report from the 2009/2010 survey*. Copenhagen: WHO Regional Office for Europe(Health Policy for Children and Adolescents 6).

Donahue, M.J., Benson, P.L. (1995)."Religion and the well-being of adolescents". *Journal Social Issues* 51: 145-160.

Dunkle, M.C, Nash, MA. (1991). *Beyond the Health Room*. Washington, DC: Council of Chief State School Officers, Resource Center on Educational Equity.

Edmonds, E., Schady, N., (2012). "Poverty alleviation and child labor". *American Economic Journal: Economic Policy* 4(4): 100–124.

Giorgieva, L., Burazeri, G. (eds.). (2005). *Health Determinants in the Scope of New Public Health. A Handbook for Teachers, Researchers and Health Professionals.* Sofia: Hans Jacobs Publishing Company.

Glouberman, S., Millar, J. (2003). "Evolution of the Determinants of Health, Health Policy, and Health Information Systems in Canada". *American Journal of Public Health* 93(3): 388-392.

Godeau, E. et al. (2008). «Facteurs associés à une initiation sexuelle précoce chez les filles: données françaises de l'enquête internationale HBSC/OMS». *Gynécologie, Obstétrique & Fertilité* 36(2): 176–182.

Green, L., Ottoson, J. M. (1999). *Community and Population Health,* 8th ed. St. Louis, MO: McGraw-Hill.

Guarcello L, Lyon S, Rosati F (2004). *Impact of Working Time on Children's Health.* Understanding Children's Work, ILO-IPEC, http://www.ilo.org/ipecinfo/product/download.do?type=document&id=5585, accessed 14 Dec. 2014.

Hamburg, D. A, Takanishi, R (1996). "Great transitions: Preparing American youth for the 21st century-The role of research". *Journal of Research on Adolescence* 6: 379–396.

Hawkins, J.D, Catalano, R.F, Miller, J.Y (1992). "Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for prevention". *Psychological Bulletin* 112: 64-105.

Holder, D.W, Durant, R.H, Harris, T. L, Daniel, J. H, Obeidallah D, Goodman E (2000). "The Association between Adolescent Spirituality and Voluntary Sexual Activit". *Journal of Adolescent Health* 26: 295-302.

Hurrelmann, K., Richter, M. (2006). "Risk behaviour in adolescence. The relationship between developmental and health problems". *Journal of Public Health* 14: 20-28.

Idler, E. L. (2014). *Religion as a Social Determinant of Public Health*. Oxford: Oxford University Press, pp. 203-251.

International Labour Organization: Report of the Director-General: A Future without Child Labour. (2002). Geneva, Switzerland.

Irwin, C. E, Scott, J. B, Uhler Cart, C. (2002). "America's adolescents: Where have we been, where are we going". *Journal of Adolescent Health* 31: 91-121.

Jiang, Y., Mermin, J., Perry, D.K, Hesser, J.E. (2013). "The relationship of multiple, simultaneously occurring health risk behaviors to academic performance of high school students". *Journal of Behavioral Health* 2(1): 44-51.

Jurcău, N. (2000). *Psihologie educațională.* Cluj-Napoca: Editura U.T. Pres.

Klein-Hessling, J., Lohaus, A., Ball, J. (2005). "Psychological predictors of health related behaviour in children". *Psychology, Health and Medicine* 10: 31-43.

Lerner, R. M. (2002) *Concepts and theories of human development* . 3rd ed. Mahwah, NJ: Erlbaum.

Levin, J. S. (1994). "Religion and health: Is there an association, it is valid, and it is causal?". *Social Science Medicine* 38: 1475-1482.

Lupu, I., Zanc, I., (1999). *Sociologie medicală. Teorie şi aplicaţii.* Iaşi: Editura Polirom.

Manning, W. D, Smock, P. J, Majumdar, D. (2004). "The relative stability of cohabiting and marital unions for children". *Population Research and Policy Review* 23: 135-159.

McDermott, B. E (2012). "Promoting Positive Development: Family Processes and Risk Behavior Among Adolescents". FIUElectronic Theses and Dissertations. Paper 577. http://digitalcommons.fiu.edu/etd/577, accessed 12 december 2014.

McKeown, T. (1979). *The Role of Medicine: Dream, Mirage or Nemesis?*. Oxford: Basil Blackwell.

Oliveira-Campos, M., Giatti, L., Malta, D., Barreto, S. M. (2013)."Contextual factors associated with sexual behavior among Brazilian adolescents". *Annals of Epidemiology* 23(10): 629-635.

Pearce, M. J (2003)."The Protective Effects of Religiousness and Parent Involvement on the Development of Conduct Problems Among Youth Exposed to Violence". *Child Development* 74 (6): 1682–1696.

Rashad, I., Kaestner, R. (2004). "Teenage sex, drugs and alcohol use: problems identifying the cause of risky behaviors". *Journal of Health Economics* 23(3): 493-503.

Richter, M., Erhart, M., Vereecken, C.A., Zambon, A., Boyce, W., Nic Gabhainn, S., "The role of behavioural factors in explaining socioeconomic differences in adolescent health: a multilevel study in 33 countries". *Social Science & Medicine* 69: 396-403.

Safron, D. J, Schulenberg, J. E., Bachman, J. G. (2001). "Part-time work and hurried adolescence: the links among work intensity, social activities, health behaviors, and substance use". *Journal of Health and Social Behavior* 42(4): 425-449.

Sawyer, S. M., et al., (2012). "Adolescence: a foundation for future health". *The Lancet* 379:1630-1640.

Şchiopu, U. (1997). *Criza de originalitate la adolescenţi*. Bucureşti: Editura Didactică şi Pedagogică.

Shelley, A. G. Francis, Tucker Halpern, C. and Tucker Halpern, C. (2001). "Religiosity cohesiveness among a multicultural adolescent population: What's really going on?". The 129th Annual Meeting of APHA.

Sinha, J. W, Cnaan, R. A, Gelles, R. J. (2007). "Adolescent Risk Behaviors and Religion: Findings from a National Study" *Journal of Adolescence* 30 (2): 231–249.

Srabstein, J., Piazza, T. (2008). "Public health, safety and educational risks associated with bullying behaviors in American adolescents". I*nternational Journal of Adolescent Medicine and Health* 20(2): 223–233.

Tremblay, R. E., Hartup, W. H., & Archer, J. (eds.). (2005). "Developmental Origins of Aggression". New York: Guilford Press.

United Nations Children's Fund. The state of the world's children 2011: adolescence: an age of opportunity (2011). New York.

United Nations Population Fund, Bali Global Youth Forum Declaration. International Conference on Population and Development Beyond 2014. (2012). New York. (http://icpdbeyond2014.org/uploads/browser/files/bali_global_youth_forum_declaration_final_edoc_v3-2.pdf, accessed 13 March 2014).

Wallace, J. M., Jr., Forman, T. A. (1998)."Religion's Role in Promoting Health and Reducing Risk Among American Youth". *Health Education and Behavior* 25 (6): 721-741.

Wallace, Jr., J. M., & Williams, D. R. (1997). "Religion and Adolescent Health-Compromising Behavior". In J. Schulenberg, J. L. Maggs, & K. Hurrelmann (ed.)., H*ealth Risks and Developmental Transitions During Adolescence in Health Risks and Developmental Transitions During Adolescence.* Cambridge: Cambridge University Press, pp. 444-470.

Ward, N. L, Linke, L. H. (2011). "Commentary: Understanding adolescent health-risk behaviors from a prevention science perspective" *Journal of the american academy of psychiatry and the law* 39(1): 53-56.

Wolfe, D. A., Jaffe, P. G., Crooks, C. V. (2006). *Adolescent risk behaviors: why teens experiment and strategies to keep them safe*. Yale: Yale University Press, New Haven.

Wu, L. T., Schlenger, W. E., Galvin, D. M. (2003). "The relationship between employment and substance use among students aged 12 to 17". *Journal of Adolescent Health* 32(1): 5-15.

Zamfir, C., Zamfir, E. (1995). *Politici sociale, România în context European.* Bucureşti: Editura Alternative.

"For a More Just World": Population and Politics at the World Population Conference, Bucharest 1974

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Abstract: By focusing on the emergence of the document "*For a more just world*", proposed by the Romanian delegation at the World Population Conference, Bucharest 1974, and adopted as its resolution, my presentation explores the relationship between the political realm and demographical sciences in defining the "population problem" at the beginning of the 1970s. I argue that the position Romania delegation professed at the WPC is the result of complex interactions between the pronatalist goals of the Communist regime and the international debate on the relationship between population and development from the beginning of the 1970s. The most important primary sources of my presentation are daily reports of the Romanian delegation, mainly identified in the Archive of the Romanian Ministry of Foreign Affairs- UN Problem Archival Fund, and edited proceedings of the WPC.

Keywords: population, development, family-planning, World Population Conference 1974

The World Population Conference (WPC), organized in 1974 by the United Nations and held in Bucharest at the invitation of the Romanian government, was the first intergovernmental conference on population, an occasion on which the topic of population was considered in the international arena by high-ranking government officials. Its main outcome was the World Population Plan of Action (WPPA), a series of principles and practical measures dealing with population dynamics and research, adopted together with 21 resolutions and 4 recommendations by the 137 countries represented at the Bucharest Conference.

My presentation explores the relationship between the political realm and demographical sciences in defining the "population problem" at the beginning of the 1970s, by focusing on the emergence of the document "*For a more just world*", that was adopted at the Conference and became the 5th resolution of the WPC. The document was proposed by the Romanian delegation during the works of the 1st Commission of the World Population Conference. The primary sources of my presentation are daily reports of the Romanian delegation, mainly identified in the Archive of the Romanian Ministry of Foreign Affairs- UN Problem Archival Fund, and edited proceedings of the WPC.

The World Population Plan of Action is considered to be a (political) compromise between the competing parties that emerged at the WPC (Finkle and Crane 1975, Burke 1974, Tabbarah 1974). On the one hand, countries considering that the postwar population growth in the Third World holds back the economic development of the region. This view was shared by most of the "developed" nations (UK, Sweden, Canada, Denmark), led by the USA, seconded by some Asian developing countries –like India, Pakistan, Bangladesh, Indonesia, Philippines, Thailand, Turkey, Tunisia. For them, the most effective solution to this perceived danger was represented by the implementation of government-led restrictions on population growth through family planning programs, for which the developed countries offered financial and technical assistance. On the other hand, most of the developing countries (Algeria, Brazil, Peru, Egypt), led by Argentina and openly supported by the socialist countries and some developed nations (France, Netherlands), shared the belief that the population growth is not a cause but an effect of underdevelopment, and that, by consequence, it can be efficiently handled only by social and economical development of the Third World countries in the context of the emergence of a New International Economic Order (AD, *Problema ONU Fund*, 6237/1974: 11v-12, 47v-48).

> Thus "*the significance of Bucharest is thus to be found in* ***a new politicization of population****-not within the terms of the classical debate between Marx and Malthus, but in the contemporary context of the struggle over the distribution of resources and power between the industrial nations and the developing nations of the Third World*". (Finkle and Crane 1975: 89).

In the end, the second group proved stronger and managed to impose its vision (May 2012: 94-95). This situation is best reflected by the major differences between the final version of the Plan (WPPA 1974) and its Draft, the original version of document, elaborated by the Population Commission and submitted for review at the WPC (DPPA 1974). When discussing these

differences, Berelson concludes that put development up, population growth (and family planning) down. And no other category of revision comes close to that combined change of emphasis from the draft version to the final one" (Berelson 1975: 135). Another American scholar also acknowledges that:

> *"the Plan of Action which emerged from these deliberations was not as specific or precise as the Draft submitted to the Conference by the Secretariat [of the UN]. The original focus on population was blurred by continual references to economic development. ...[...] The final version had the advantage of incorporating the views of many countries and was adopted by consensus"* (Burke 1974: 372).
>
> Moreover, "*interviews with members of the UN Secretariat as well as members of delegations from the United States, Canada, Great Britain, and other countries indicate that they had not anticipated that the Draft Plan would come under such strong attack or the New International Economic Order would be injected as a major issue into the Conference [...]*" (Finkle and Crane 1975: 93).

Aware of the differences of opinion, which started months before the opening of the WPC in Bucharest (ANIC, *CC al PCR-Relaţii externe Fund*, 313/1974: 28-31v, AD, *Problema ONU Fund*, 6226/1974: 43-45, 47-51, 6237/1974: 42-45, 47v-48), the Romanian delegation made its choice of sustaining the "development" position, consistent with the views and goals the Romanian government and Romanian Communist Party (RCP) had on population management (ANIC, *CC al PCR-Relaţii externe Fund*, 313/1974: 28-31v, AD, *Problema ONU Fund*, 6237/1974: 35, 49-50).

Romanian diplomacy took action in order to secure a common position the socialist countries would jointly support at the Bucharest conference: in addition to the bilateral negotiations Romania had with different countries, a meeting of the socialist countries, whose purpose was to establish a common position of the socialist countries on the population issue, took place in Sofia in July 1974, at the initiative of different socialist governments (ANIC, *CC al PCR - Relaţii externe Fund*, 313/1974: 44fv, 58-58 fv).

This split between the two groups presented at the WPC was acknowledged by the Romanian participants, who openly supported the development position (AD, *Problema ONU Fund*, 6237/1974: 24 fv, 47v-48). The position Romania enjoyed as a host, as well as the presidency of the Conference–held by the Romanian Foreign Affairs Ministry–gave its delegation a voice in the proceedings they would not have otherwise had. (Stanciu 2014)

The tone was set from the very beginning of the Conference, with the inaugural speech of Nicolae Ceaușescu, the Secretary General of the RCP, newly appointed President of Romania. He openly adhered to the position supported by the second group, setting the path for the subsequent deliberations: in the future debates of the WPC by arguing that the population problem should be considered in the context of the New International Economic Order. He rejected the pessimistic thesis that held that subsistence resources will be exhausted should the present ratio of population growth be maintained. Success in meeting future requirements depended, however, on the more intensive development of the productive forces in every country and the maximum use by all people of their resources. This called for a more equitable distribution of wealth among peoples and the access of all nations to contemporary science and technology.

An essential condition for solving the population question was the liquidation of underdevelopment, and the creation of equality and active cooperation among all continents and states, and the freeing of mankind from the burden of military expenditures, as well as the end of colonialism and neo-colonialist practices. Moreover, he made it clear that demographic policy must take into consideration the historical, economic and social conditions in each country and to be based on concrete reality, as the demographic map of the contemporary world presented a great variety of situations, and that every State should decide over the demographic goals that best suit its development plans, consonant with its national interests, and without outside interference (Ceaușescu 1974: 576-587).

The final report on the Conference, issued some weeks later by the Ministry for Foreign Affairs and addressed to the RCP leaders, reported with satisfaction that the group promoting the population as a matter of general of development managed to dominate the debates at the WPC, and that the Romanian delegation played an important role in this development (AD, *Problema ONU Fund*, 6237/1974: 48-49). The same document mentioned that the final report of the First Committee was unquestionably marked by the common position of Romania and Algeria on the fact the population problems can be conceived and dealt with only within the larger frame of the economic and social development of each country, in the context of a New Economic International Order. (AD, *Problema ONU Fund*, 6237/1974: 35).

The document initiated by the Romanian delegation, which would be finally adopted with minor modifications as the 5th resolution of the WPC, "*For a more just world"* (see Appendix), illustrates the way in which the decisions on population issues were heavily politicized at WPC, the outcome of multiple

negotiations and diplomatic manoeuvres, marked by a semantic ambiguity generous enough to leave space for interpretations that would make them acceptable for all the parties involved (Jaffe 1974: 214, Population Council 1974: 376).

The works of the WPC were formally divided in 5 sections: the Plenary, the Working Group on the World Population a Plan of Action, and three substantive committees –the First Committee working on "Population and development", the Second Committee - working on the "Relationship between population, resources and environment" and Third Committee- on "Population and the family" . The negotiations for promoting this document started on the 22nd of August, at the First Committee, president: Carloz Sanz de Santamaria from Colombia, vice-president A. Delpree, from Belgium, and rapporteur K. T. de Graft Johnson from Ghana. (UN 1975: 65)

Noting that during the debates the development position gains more and more support, the Romanian representatives began informally to promote the document *For a more just world* among the members of the First Committee (AD, *Problema ONU Fund*, 6237/1974: 18). After two days of negotiating support, the document was officially presented in the afternoon session of the 1st Committee by Mircea Maliţa, the chief of the Romanian delegation at WPC (ANIC, *ASSP-Sociologie Fund*, 16/1974: 80v).

The differences between the original document proposed by the Romanian delegation (AD, *Problema ONU Fund*, 6237/1974: 26-28 fv) and its final version, adopted as Resolution 5 of the World Population Conference (UN 1975: 31-34) are minor and formal. The document consists of a series of principles and universal values, structured by two discursive themes: the population variables are discussed in close connection with the social and economic development of each country, in a secure international context. Secondly, the document insists over the prerogatives of the national states in deciding over their own demographic goals and the best ways to obtain them (Appendix: 1b, 1d). While the first theme was fundamental for pushing on the international agenda the developing countries' position on overpopulation in the context of the emergence of the New International Economic Order, the second one was essential for justifying and legitimizing the pro-natalist goals and means used by the Communist regime in Romania.

The positive reactions came immediately, and 7 other delegations (Algeria, Columbia, Guinea, Ecuador, Mexico, Philippines, Sudan) requested to become co-authors of the proposed document. The Mexican representatives appreciated that this document was "*exactly what the Conference was missing, a new*

type of document that deals with the essence of the problems the contemporary world is confronting with" (AD, *Problema ONU Fund*, 6237/1974: 22v).

Delegations coming from Ghana, France, USSR, Poland, USA, UK, Sweden and Uruguay appreciated that this document is an "*historic act and expresses principles valuable for the progressive humanity*" (AD, *Problema ONU Fund*, 6237/1974: 22v), declaring their support, with proposals of minor adjustments. While the representatives of Ghana declared that this document is the first "*major document of the conference, with important humanistic implications*" the USA delegates enthusiastically appreciated the document proposes "*a global approach, that does not pay attention to insignificant details*" (AD, *Problema ONU Fund*, 6237/1974: 23). The Soviet delegation requested some time to study the documents, but given that this would have delayed the adoption of the resolution, they renounced their request.

The British delegation, supported by other Western groups, suggested that the text should contain references to the right of the families to decide over the number of their children. But, after negotiations with the Romanian delegation, the British representatives renounced this request, in order not to impede "the unanimous adoption of a valuable document"(AD, *Problema ONU Fund*, 6237/1974: 23). However, they demanded their recommendation to be included in the session's minutes. Other delegations, especially Poland, proposed other modifications that would be discussed and included in the text. Argentina and Uruguay renounced their own resolution regarding the elimination of the relations of economic dependency and the need to promote social justice in domestic affairs, considering that the Romanian document significantly reflected these demands. The Romanian document was also assessed by the UN Secretariat, as a "*public, fundamental document of the conference*"(AD, *Problema ONU Fund*, 6237/1974: 23).

After being unanimously adopted in the First Committee, the Romanian document was to be adopted by the Plenary. Two days later, and for the same reasons as the ones invoked by Argentina and Uruguay, Indonesia, a country belonging to the group of birth-control supporters, also renounced to propose a resolution (E/Conf. 6061) regarding the "*the expansion of work-place in the context of development"* (AD, *Problema ONU Fund*, 6237/1974: 31), (ANIC, *ASSP-Sociologie Fund*, 16/1974: 72).

On the 27th of August, the First Committee resumed its workings, with its report being adopted by the Plenary. On this occasion, the delegations of the USA, UK and Uruguay insisted that the report should acknowledge that their objections regarding the Romanian document "*For a more just world"* concerned only the inclusion of a paragraph regarding the right of each couple

to freely decide over the number of children, and not the entire document, that they utterly supported (AD, *Problema ONU Fund*, 6237/1974: 35).

While wholly appreciating the Romanian initiative, the delegations of other socialist countries, like USSR, GDR, Mongolia and Czechoslovakia, believed that given the importance of the document proposed by the Romanian delegations, it would have been advantageous that this document would have been elaborated and further presented as a common socialist initiative (AD, *Problema ONU Fund*, 6237/1974: 49 -50).

The international success of the Romanian initiative, which brought together delegations from the two opposing groups (Indonesia and Argentina, for example), was explained by Mihnea Gheorghiu, the director of the Academy of Social and Political Sciences, in terms of the "*principles of universal values it proposes, which reflect the overall policies Romania carries on in several domains, both on the domestic plan and in international relations*" (ANIC, *ASSP-Sociologie Fund*, 17/1974: 11).

The document's proposals were vague enough to attract support from both sides. Taking advantage of the international situation created, and of the "demonization" of family planning at the WPC, the Romanian document places the population problem in a very broad context of development, avoiding to make any reference to family planning, and not mentioning the rights of the individuals to decide over the number of desired children. Diplomatic manoeuvres and negotiations, enhanced by Romania's privileged position as host country, nevertheless contributed to the success of its initiative, concretized in its adoption as the 5th Resolution of the WPC. As representatives of the host-state, Romania's delegates managed to collaborate with countries belonging to both groups, successfully negotiating and mediating between parts. Even if they closely collaborated with the socialist countries' delegations, they avoided to openly associate themselves with the socialist countries' group during the debates on the WPA, even though they shared and supported the same beliefs in the crucial aspects of the debates (AD, *Problema ONU Fund*, 6237/1974: 50fv-51).

When viewed in Romania's domestic context, the document receives new meanings. When placed in the framework of the pro-natalist program pursued by the Ceauşescu regime since 1966, unique in the region given the severe restriction of abortion on request, lack of modern contraception (Doboş 2010: 184-188, 276-288) the document emerges a tool of international legitimization for the pro-natalist goals and means used by the Communist regime in Romania. The entire position Romania adopted at the WPC represents the outcome of complex interactions between national demographic

goals and international context. The insistence on defining population policies as a matter of national sovereignty, established by the demographic goals of each national government, has to be read within Romania's domestic context and adds a new dimension to the politicization of 'population problem' at the WPC.

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References

Primary Sources

AD- Arhivele Diplomatice (Archives of the Romanian Ministry of Foreign Affairs), *Problema ONU Fund*: 6226/1974, 6237/1974.

ANIC- Arhivele Naţionale Istorice Centrale (National Archives of Romania-Headquarters), *ASSP-Sociologie Fund*: 16/1974, 17/1974.
C.C. al P.C.R-Relaţii Externe Fund: 313/1974.

Secondary Sources

Berelson, B. (1975). "The World Population Plan of Action: Where Now?". *Population and Development Review* 1(1): 115-146.

Burke, J. G. (1974). "The World Population Conference: an overview". *The Journal of International Law and Economics* 9: 367-373.

Ceauşescu, N. (1974). "Cuvântare la Conferinţa Mondială a Populaţiei. 19 august 1974". In N. Ceauşescu, *România pe drumul construirii societăţii socialiste multilateral dezvoltate,* vol. 10. Bucureşti: Editura Politică, pp. 576-587.

Doboş, C. (2010). "Concluziile Părţii I, Concluziile Părţii a II-a, Încheiere". Corina Doboş (ed.). Luciana M. Jinga, Florin S. Soare. *Politica pronatalistă a regimului Ceauşescu. O perspectivă comparativă.* Iaşi: Polirom, pp. 184-188, 276-288.

DPPA (1974). Draft Population Plan of Action. Item 11of the provisional agenda, < http://repositorio.cepal.org/handle/11362/18340>, accessed in 12.05.2015.

Finkle, J. L., Crane, B. B. (1975). "The Politics of Bucharest: Population, Development, and the New International Economic Order". *Population and Development Review* 1 (1): 87-114.

Jaffe, F. S. (1974). "Bucharest: The Tests are Yet to Come". *Family Planning Perspectives* 6 (4): 213-216.

May, J. F. (2012). *World Population Policies. Their Origin, Evolution, and Impact.* Dordrecht-Heidelberg- New York- London: Springer.

Population Council (1974). "Strengths and Weaknesses of the Plan". *Studies in Family Planning* 5(12): 376.

Tabbarah, R. B. (1974). "Population policy issues in international instruments: with special reference to the World Population Plan of Action". *The Journal of International Law and Economics* 9: 419-454.

WPPA (1974). "World Population Plan of Action". *Studies in Family Planning* 5(12): 381-392.

Stanciu, C. (2014). "Conferinţa Mondială a Populaţiei, Bucureşti 1974. Semnificaţii politice". *Polis. Revistă de ştiinţe politice* 2(3): 35-53. <http://www.revistapolis.ro/images/Numarul_352014/Cezar_STANCIU.pdf>, accessed in 03.03.2015.

UN (1975). *Report of the World Population Conference, Bucharest 19-30 August 1974*, vol. I. New York.

***Appendix*: Resolution V. "*For a more just world*" (UN 1975: 31-34)**

The World Population Conference,

Believing that the human being is the supreme value of the world and its population the most precious treasure of every country,

Convinced that population, its needs and aspirations, are today and in the long term one of the major issues, with deep national and international consequences, of vital interest for every State in the world,

Examining in this spirit the basic problems of the human condition, the existing situation in the field of population in the world, the political, economic and social causes which have engendered it and the remedies which need to be carried into effect without any delay,

Deeply concerned about the fact that, as a result of historical factors, many peoples find themselves in a state of flagrant under-development, a great many of inhabitants of the world in conditions of malnutrition, disease, illiteracy, low life expectancy and other calamities which greatly impede the normal development of the population over vast areas of the earth,

Recalling that the ultimate objective of development, which is to bring about sustained improvement in the well-being of the individual and bestow benefits on all, requires increased cooperation on the part of Governments, International organizations, particularly the United Nations, where efforts to accelerate economic and social development and population policies should go hand in hand,

Reaffirming once again our firm belief, strengthened by the age-long experience of mankind, that no people can be truly free and independent if it does not acknowledge and respect the freedom and independence of other people

Noting with deep concern that hotbeds of tension and conflict caused the use of force and the threat of force in inter-State relations, the arms race primarily in the nuclear field, and the huge military expenditure it involves greatly jeopardize the peoples and their material and spiritual assets and constitute an ever heavier burden on world population,

Greatly concerned with the gaps between the developed and the developing countries, the inequities and injustices still existent in International economic relations, the obstacles and barriers which still stand in the way of their mutually advantageous collaboration, which add further serious difficulties to the task of the peoples already facing the complex problems of their own social and economic development,

Emphasizing that in the specific conditions of today's under-development the discrepancies and inequalities among regions of the world exert a negative influence on all States, including the developed ones, and bring about in their turn new differences, disturbances and crises in international economic relations,

Believing that an efficient political and humane demographic policy require energetic actions, in the spirit of human solidarity, national equality and International justice, with a view to liquidating all the aforementioned evils, the cause which generated and perpetuated them,

Considering that the population of the developing countries is basically young population which needs a more just, equal and humane world and calls for social change,

Considering the higher status which women are acquiring, thus contributing towards the creation of a fuller human consciousness,

Considering that the rejuvenating changes taking place in the world today, the assertion of the peoples' will to live freely and as sovereign States and to embark on the way of self-reliant economic and social development, the increase of the struggle of democratic progressive forces for the liquidation of

anachronistic manifestations in international life and outdated domestic social structures, and because freedom, Justice and social equity facilitate the transition to practical actions to these ends,

Firmly determined to approach in a new, constructive and efficient in keeping with the imperative of the present historical stage, the problem of population in the effort to contribute to their solution according to the aspirations of mankind to build, through the contribution and for the benefit of all peoples, peace, security and economic and social progress all over the world,

Acting in keeping with the goals and principles of the Charter of the United Nations, designed to advance the socio-economic progress of all nations, and in conformity with the International Development Strategy for the Second United Nations Development Decade, the Declaration of the United Nations Conference on the Human Environment, the international covenants on human rights as well as the Declaration and the Programme of Action on the Establishment of a New International Economic Order adopted by the General Assembly in its resolutions 3201 (S-Vi) and M02 (8-VI), taking into account the preparatory work undertaken towards the formulation of the Charter of Economic Rights and Duties of States,

1. Solemnly proclaims its firm determination to act to create a more equitable world, based on the principles of full equal rights, the observance of national independence and sovereignty, the non-interference in internal affairs, the mutual advantage, the non-use of force or threat of force, the right of every people to free development in keeping with its aspirations and, in this spirit, adopts the following declaration:

(a) That, as an integral part of the efforts to shape a more equitable world the solving of problems concerning population implies the liquidation of under-development, the elimination of gaps between the industrially advanced States and those lagging behind, thus ensuring the economic and social progress of all peoples;

(b) That the population policy of every State is an organic component of its over-all policy of economic and social development and that the formulation of this policy, depending on the concrete historical, political, economic and social situation, is an indivisible and inalienable attribute of the sovereignty of States;

(c) That the improvement of living conditions and, by and large, the solution of population problems make it imperative to respect the inalienable right of each and every country to be the master of

its own national resources, its raw materials and other natural resources, so that such resources may be utilized for the country's economic and social progress with due respect to the need to improve international economic co-operation;

(d) That a decisive role in the process of development should be played by the people's own efforts to implement industrialization and development programmes, thus leading to speedy economic development, to turn fully to account the material and human potential, in keeping with their own interests in progress and well-being, by the modernization of social structures and the achievement of equity on a national plane;

(e) That an important factor in solving population questions is, at the same time, to expand international co-operation within the framework of a new economic order, to set up Just relationships, which should eliminate any manifestation of inequity and discriminatory practices, co-operation which should lessen discrepancies and close gaps, thus ensuring the active and advantageous participation of every country in the international division of labour;

(f) That the efficient support of the developing countries, with a view to solving demographic problems, involves, first of all, the concentrated effort of the international community, in the spirit of human solidarity and international equity, so that more countries may more easily follow the path of economic and social development;

(g) That international co-operation in Science and technology, ensuring effective access of all peoples to scientific and technological gains is an outstanding objective capable of strongly stimulating economic and social progress and thereby contributing to the solution of fundamental population questions;

(h) That sponsoring and implementing programmes of wide scope, on the surface of the whole earth, the developing countries having priority, so that the spectre of starvation, disease and illiteracy may disappear, so that national personnel may be trained and the population's education and cultural standards improves, offer humane solutions to population problems in the spirit of genuine international solidarity;

(i) That to solve demographic questions requires, first and foremost peace and security, the extinction of the hotbeds of war

and negotiated political solution of conflicts, putting an end to the arms race and converting military allocations to civilian purposes, promoting a new type of relationship between States, based on the principles of international law;

(j) That the practical and efficient approach, in accordance with the supreme interests of every nation and of the whole international community, to the political, economic and social questions – on the solution of which the settling of population problems depends – can and must take place with all the States participating in the proceedings with full equal rights;

(k) That countries, having accepted a specific financial responsibility to assist the developing countries and given that population policies must be integrated into over-all socio-economic development programmes, must make every effort to meet their targets for official development assistance;

(l) That it is in the interest of all peoples that policies be established and pursued aiming at restoring, protecting and enhancing the human environment and pursuing a foresighted husbandry of non-renewable and renewable natural resources;

2. Expresses its confidence that the efforts made and the results achieved at the World Population Conference in Bucharest will be continued and expanded in the future, in accordance with the interests of peace and the progress of all peoples;

3. Stresses its firm conviction that the United Nations system can and will make an increased contribution to solving the pressing problems which present concern to all mankind and that the United Nations system can and will become an efficient instrument in present-day efforts to build a more just world.