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Family Relations and the Experience of Loneliness among Older Adults in Eastern Europe

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ABSTRACT

In this paper I conceptualize and analyze the determinants of loneliness among older adults in Russia and Bulgaria, two former communist societies experiencing myriad and challenging transitions – economically, demographically, and socially. Using the Generations and Gender Survey (2004) I conduct an OLS regression analysis of loneliness among heads of household age 60 and older. I focus attention on family structural correlated of loneliness –specifically on how marital status, and the numbers and co-residence status of children and grandchildren relate to the experience of loneliness in late adulthood. The analyses reveal that in Russia and Bulgaria loneliness is quite commonplace, especially among elderly men, and rises with age. Loneliness is found to correlate positively not only with widowhood, small family size and limited extended family relations (i.e., those with grandchildren), but also with economic deprivation and poor health. The analysis also reveal that Russian and Bulgarian women express significantly less loneliness than their male counterparts; explanations for this gender gap are tied to men’s and women’s different orientations to the family and household in the post-Soviet era.

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INTRODUCTION

In this paper I conceptualize and analyze the determinants of loneliness among older adults in Russia and Bulgaria, two former communist societies experiencing myriad and challenging transitions – economically, demographically, and socially. Each of these transitions has figured prominently in the lives of those who are transitioning to older adulthood. The demographic transition to an older population, due to steep declines in fertility that are holding at levels far below replacement, and the high levels of outmigration following the fall of communism, is likely to strain traditional bonds and obligations of family support. Older adult wellbeing is also steeply intertwined with the economic changes wrought in the transition to market economy, namely in the vast reduction of social welfare provisions and the precipitous decline in pension values.

Why study loneliness in such a context? On one hand, studies of the declining health of post-Soviet bloc populations are quite numerous, their findings commonly pointing to widespread experience of ill health relative to other European populations, and a worsening of health compared to the communist era (Abbott et al. 2006). On the other hand, examinations of loneliness and social relationships are relatively rare, due in part to a dearth of appropriate data on actual and perceived social relationships. Yet the subject is not trivial, as much research points to social relationships as one of the most central predictors of mortality and morbidity in older adulthood (Dykstra 1995; 2009). Loneliness, too, is associated with higher risks of mental illness and suicide in older adults (Peplau & Perlman 1982). In addition, analysts of Eastern Europe, in particular Russian society, have noted that circles of friendship and other informal associations have served the purpose of helping to make ends meet in times of economic insecurity and insulating citizens' everyday lives from negative effects of the state (Rose 1995). The salience of such relationships is captured in the Russian proverb, "A hundred friends

are worth more than a hundred rubles,” and suggests the negative outcomes, such as ill health and poor quality of life, that arise when circumstances reduce networks of friends and other social relations.

It is widely acknowledged in theoretical and empirical works that age associated losses or declines (due to widowhood, worsening health, retirement) alter the quality and quantity of social relationships and thereby tend to trigger heightened levels of loneliness in older adulthood (Dykstra et al. 2005; Fees et al. 1999; Lopata 1995; Pinguart 2003). Given the demographic realities of post-Soviet Eastern European, the losses associated with aging are likely quite pronounced, and accompanied by a host of losses linked to social and economic upheaval. The state of Eastern European economies, demographics and civil society following the collapse of many institutions that ensured older adult welfare suggest that the chances that older adults will experience *gains* in late life will be quite limited. An important exception may be those older adults who, despite historically low fertility rates, form new relationships with grandchildren. Accordingly, both theoretical and policy insights can be gained in studies aiming to discern the populations most vulnerable to and social factors most prominent in elevating the risk of loneliness and social isolation.

How widespread is loneliness among older adults in Russia and Bulgaria? Is loneliness, or dissatisfaction with one’s social relationships, associated with family structure, in terms of the numbers and coresidence status of one’s children and grandchildren? Furthermore, given gendered social roles in family and economic life, are men and women differently susceptible to loneliness in old age? These are among the questions I address in analyses of the Generations and Gender Surveys (GGS), conducted in Russia and Bulgaria in 2004. Before preceding to the analytical component of the paper, I first provide a brief overview of previous research on loneliness in older adulthood, as well as an overview of the aspects of social, demographic and economic change unfolding in Eastern Europe’s ‘third transition’ that are relevant to older adult quality of life.

PREVIOUS RESEARCH ON LONELINESS & FAMILY RELATIONS

Previous research indicates that older adult loneliness varies widely across regions of Europe (Walker 1993; De-Jong Gierveld & Van Tilberg 1999). Cross-national European studies have yielded results that defy overly simplistic assumptions about cultural traits and the experience of loneliness at the individual level. For instance, despite weaker family ties & greater individualism at the macrolevel, elders report less loneliness in northern Europe, e.g., Denmark, Finland, than in southern Europe, e.g., Greece, Italy (Walker 1993). In addition to unexpected findings with respect to collectivism-individualism, there is little evidence to suggest that the advance of population aging in Europe has brought an increase in older adult loneliness. Rather, various studies indicate that older adult loneliness rates have held steady, or even declined, during recent decades (Dykstra 2009; Victor et al. 2002). This is somewhat paradoxical for a number of reasons, for instance the increase in loneliness observed with advancing age (Dykstra et al. 2005), and the increasing numbers of older adults who are widowed or facing old age with relatively few living children.

Theorizing on regional, national and intra-national differences in loneliness has drawn attention to cultural and social structural factors. Looking beyond the cultural values of familism, van Tilburg and colleagues (1998) point to degrees of social integration in older adulthood as an explanation for the somewhat unexpected finding that elderly Tuscans' loneliness exceeds that of the Dutch, a pattern attributed to Tuscans' relatively limited extent of social integration in older adulthood. Others have highlighted normative perceptions to elaborate why living alone results in differing degrees of loneliness. The reasoning of Johnson and Mullins (1987), that 'loneliness thresholds' depend on context & culture and that living alone breeds loneliness where it is the exception, is supported in

research which finds that Finnish elders living alone are less likely to report feeling lonely than their Greek counterparts (Jylha & Jokela 1990).

When it comes to former communist countries, the field of research has been hampered, until quite recently, by a dearth of data on objective and subjective measures of social relationship quality (Dykstra 2009). In the early period of transition, scholars suggest there was a renewed tendency toward reliance on kin and informal networks simply to ensure survival in lieu of government sponsored institutions (Sik and Wellman 1999). However, at the same time, increased life stress and mobility tended to fracture social networks, leaving many, older adults in particular, with a heightened sense of alienation and isolation (Goodwin 2006; Kraus et al. 1998). Given these changes, it is not surprising that one of the few previous comparative studies on elderly loneliness in Eastern Europe finds that loneliness levels are significantly higher in the former Eastern Bloc countries of Russia, Bulgaria & Georgia, relative to France & Germany (de-Jong Gierveld 2008). In a related vein, Goodwin's (2006) analysis of social support and mental health in four post-communist nations finds that perceived social support is lowest among older adults, and that this age graded relationship explains, in part, the relatively poor mental health outcomes observed among these older adults.

Iecovich and colleagues' (2004) analysis of elderly Jews in Russia and Ukraine found that many exhibit intense levels of loneliness, especially among the Ukrainians. Vulnerability to loneliness was linked to thin social networks and network holes created not only through contemporary emigration and diminished social services, but also through deaths and displacements in the Holocaust. Transition to the new era was a particularly difficult, and experienced as a loss for older adults, as one study participant (Iecovich et al. 2004: 313) indicated: 'For us, elderly people, the former regime provided everything and we felt secure, but now we feel abandoned and neglected.' Tchernina and Tchernin's (2002) overview of Russian pensioners' livelihoods reiterates the point that aging, in part because it

involves loss or change in employment, frequently involves multiple deprivations, not only in terms of economic security, but also social relationships.

Studies systematically examining the relationship between family structure, living arrangements, and the experience of loneliness yield results that diverge across regions, suggesting that family structure interacts with social structure and cultural expectations to influence sentiments of loneliness. As Koropecj-Cox (1998) acknowledges, research that associates numbers of children, and childlessness, with richness and absence of social resources, respectively, has been criticized for both presuming child-parent ties are conduits for support, and overlooking the importance of non-kin social ties in shaping subjective wellbeing. Also not to be overlooked as a determinant of loneliness is the quality, or extent of solidarity expressed through ties across generations (Long and Martin 2000). Koropecj-Cox finds in her analysis of U.S. elders that childlessness is not necessarily associated with loneliness and depression in older adulthood (ibid). Non-kin ties are likely to be more important to social integration in some settings than others. For instance, in their analysis of living arrangements and loneliness among older adults without living partners in Italy and the Netherlands, de Jong Gierveld and van Tilburg (1999) find that those living with grown children (but not partners) were lonelier in the Netherlands than in Italy. The authors attribute this divergence across countries to the greater extent of individualism, over family traditionalism, in the Netherlands as compared to Italy.

In terms of loneliness, the importance of contact with children, siblings, neighbors and friends depends on an older adult's marital status. Pinquart's (2003) analysis of German older adults indicates that contact with friends, neighbors, children and siblings was more likely to alleviate loneliness in older adults currently unmarried (widowed, divorced, never married) than in those with a spouse. Pinquart further reasons that the differences across married and unmarried older adults indicate that spouses most

often meet needs for intimacy, closeness and sharing, and the absence of a spouse thus is associated with greater loneliness and greater importance of other familial and extra-familial contacts.

Although relationships beyond the parent-child tie, such as those with siblings and neighbors, are considered in many analytical frameworks, few consider the role of grandchildren in older adults' experiences of loneliness. There are many reasons to believe that the grandparent-grandchild tie is pertinent to loneliness. First, as Hayslip and Kaminski (2005) note in their overview of custodial grandparents, although grandparent caregiving is associated with numerous stressors, it can also enhance one's pleasure, sense of purpose, and provide activities that form the basis of active aging (Geurts et al. 2009; Giarrusso et al. 2000). In addition, older adults may experience renewed, closer ties with their own, grown children when grandchildren enter the picture.

There may be a tendency to assume that having and living together with greater numbers of children, as well as grandchildren and other extended family, would be a buffer against loneliness. However, it is important to keep in mind that intergenerational relationships are not always close. In addition, as previous research conducted in Western Europe suggests, social integration of other forms – in community organizations, with a circle of friends – is oftentimes more important in staving off loneliness in older adulthood than reliance on traditional familial relationships. It is in this appreciation of the complex relationships between family structure, family relations, and loneliness, that I embed the questions and analyses that follow.

CONTEXTS OF STUDY – RUSSIA AND BULGARIA

The so-called “demographic collapse” of Eastern Europe is much cited and its causes - namely fertility decline and selective outmigration – are well established (Bezrukov and Verzhikovskaya 1994). In absolute and relative terms, the populations of Europe and Eastern Europe in particular are declining

(Demeny 2005). The European population that remains is growing older, such that future older adults will be supported by smaller cohorts of workers in the labor force and smaller cohorts of children and grandchildren in their families. To date, the oldest old population in the East has been held at bay, as compared to Western European nations, due to the slowing gains, and even declines, in life expectancy in the transition period. This halting of life expectancy gain has recovered in most of Eastern Europe, with the notable exception of Russian, and especially Russian male, life expectancy (Schoenmaeckers and Vanderleyden 2006). Although growth of the elderly share of population in the region has slowed since the 1990s, the very low fertility of recent cohorts promises to produce rapid population aging in decades to come (Garilova and Gavrilov 2009). In-migration from outside of the region is cited as one of the few possible demographic correctives for this transition which has powerful momentum and is already well underway (Coleman 2006).

In some sense, demographic trends are even bleaker in Bulgaria than in Russia. Conditions have led observers to warn of a severe demographic crisis looming for Bulgaria in the coming years (Georgiev 2008). Among the indicators of oncoming crisis are changes that began to unfold in the past decade —shrinking of the population due to outmigration and negative natural population growth; the literal ‘disappearance’ of over 100 villages, and significant population decline even in the capital city, Sofia (BAGSO 2001). A key contributor to Bulgaria’s population decline is emigration, which, drawing from professionals and laborers in their prime working ages, stands to greatly diminish native-born workforce and care-giving resources (Rangelova & Vladimirova 2004). The age selectivity of outmigration also means that the families and elderly parents of Bulgarian emigrants, already fragile due to decades of below replacement fertility, will be strained to arrive at supportive intergenerational relations. While in-migration to Bulgaria is expected to rise following 2007 incorporation into the EU,

including the return migration of Bulgarian nationals (Gachter 2002; Georgiev 2008), the consequences of emigration for the elderly are neither well documented nor understood.

Older Russians' lives continue to be marked by the difficulties and difficult transitions of the 20th century. Many of their stresses have socioeconomic origins, as payments to pensioners frequently fall below legal minimum levels, leading to hand to mouth existence, indebtedness, and often desperate attempts to find employment in informal and black market economies (BAGSO 2001). A historical decline in employment among Russian pensioners suggests not that pensioners feel no economic need or desire to be actively employed, but rather reluctance on the part of employers to hire them, and pessimism about their ability to locate work (Karyukhin 2008). Long periods of reliance on pensions whose real values have eroded, with few opportunities for continued employment into older adulthood, suggests that Russia's elderly may encounter needs for shelter and various forms of economic assistance to make ends meet. As my analyses of the GGS data will suggest, sizable segments of this age group report regular difficulties in making ends meet. Surveys of Russian pensioners note that many struggle to subsist solely on their pension payments, leaving female, unemployed pensioners, in particular, one of the most vulnerable social groups, evolving adaptive means of survival that still result in precarious situations (Karyukhin 2008).

Eastern Europe's 'third transition' is unique in that it has ridden on the tails of massive political and economic transition, with significant population aging unfolding in the midst of relative poverty and immature market institutions. The elderly were among the most vulnerable groups in the region's 'third transition,' as the previous certainties of communist social and economic organization were undermined by rapid social change and their ways of living and communities were dismantled by radical social reorganization (Goodwin 2006). Consequently, many elderly find themselves coping with "multiple deprivations" produced, in part, by the collapse of socialism and failed welfare, healthcare, and other

institutions (Tchernina and Tchernin 2002). Arguably, older adults in Eastern European countries will witness even more uncertain and stressful situations than their counterparts in nations with longtime EU membership. With age profiles that parallel those of the EU, but with much smaller economies, as well as strained and unreliable social welfare systems, their aging transitions are occurring on weaker institutional and economic foundations (Ovseiko 2008).

Changes in policy, in addition to empirical research, suggest that experiences of isolation and exclusion among the elderly have risen during Eastern Europe's market and demographic transitions. Soviet era social services to disadvantaged elderly have all but disappeared, leaving older adults lonelier and more isolated (Iecovich et al. 2004). More so than in Soviet times, "age exclusion," or the reduction of economically active life through retirement and other policies, is seen as a potential threat, not only in terms of economic outcomes, but social and psychological ones (Lehr and Felscher 2008). At the same time that rhetoric around older adult wellbeing highlights "active aging," rising life expectancy and mandatory retirement ages fixed in the mid 50s to mid 60s mean that older adults' social relationships and sense of purpose stand to be diminished as their economic contributions and work-based relationships decline and years of dependency expand.

Collapse has also occurred with respect to the formal institutional welfare supports that held sway before 1989. As Tchernina and Tchernin (2002:545) note of Russia at the turn of the 21st century, "there is no longer a welfare state, medical and personal care services have been annihilated, and societal welfare shocks have evolved haphazard, often marginal, day-to-day strategies of survival" distant from time honored Russian traditions. Real values of official pensions hover at subsistence level and actual benefits received often fall far below official levels (ibid). These trends mean that rising long term care demands will fall heavily upon informal caregivers, likely the spouses and children of older adults who have experienced loss of functioning and other forms of dependency (Ovseiko 2008).

And although intergenerational support is deemed the main source of Russian older adults' welfare, it remains unclear the extent to which older adults here, and elsewhere in aging Eastern Europe, draw upon supportive intergenerational relations, in particular living together with adult children who themselves are often in the peak years of employment and family formation. Scholars have pointed to the arrival of a "new intergenerational balance" weighing upon smaller cohorts of children as larger cohorts of older adults are living longer and often with lengthier durations of compromised functional health (European Commission 2006). How families will withstand these demographic shifts, and whether older adult quality of life will hinge upon intergenerational support relations, remains to be seen. Some researchers (e.g., Tchernina and Tchernin 2002:553) have already observed signs of cracks in the informal contract obliging Russian youth to provide and care for their aging parents.

GENDER IN THE POST-SOVIET CONTEXT

In Eastern Europe, as elsewhere, gender is seen as an important factor delineating quality of life and relationships in older adulthood. Within Eastern Europe, Schwarzer and colleagues (1994) found that women reported significantly greater received and perceived support than their male counterparts. By extension, loneliness, which gauges perceptions of social relational deficits, also ought to be a gendered experience. Gender disparities in old age loneliness have been observed in a range of settings, and are often attributed to men's and women's different degrees of contact with children, siblings and friends (e.g., Kaufman and Uhlenberg 1998; Pinguart 2003).

In the case of Russia, older adult living situations, as well as their relations with grown children, are likely to be sharply gendered due in no small part to the vast life expectancy gap between men and women. Gendered differences in survival among the current generation of elderly are a byproduct not only of men's currently high levels of chronic disease and other causes of death, but also are a legacy of

high levels of male mortality during the WWII era (Velkoff and Kinsella 2000). In particular, recent data suggests that while Russian male life expectancy falls below 60 years of age, for Russian females the figure is 73 years, a gender gap of over 13 years. Given this disparity, Russian women are more likely to lose a spouse than their counterparts elsewhere in the region. Russia, like other countries in the region, requires earlier retirement for women (age 55) than men (age 60), a policy that raises questions about the economic vulnerability and social relations of older Russian women, widows in particular.

Aside from the longevity differences that separate men and women in a particularly stark way in Russia, there are also distinctive social and familial roles across the genders which have implications for the experience of loneliness in late adulthood. As Ashwin & Lytkina (2004) observe, men's lesser involvement in family and household affairs has compromised their ability to cope with losses related to labor market experience. Men were essentially "estranged" from domestic and caring work under the patriarchal mode of the Soviet family, making "the frailty of men's presence and position in the family....a constant ingredient in the everyday knowledge of the Soviet people" (Rotkirch 2000:11; Ashwin & Lytkina 2004). Ashwin and Lytkina further suggest that because men's, and especially Russian men's, status in the household is defined by their fulfillment of the breadwinner role, then loss of this role – as through retirement, disability, or other age-graded changes, will be particularly challenging, if not devastating, to social and emotional wellbeing.

RESEARCH QUESTIONS

In order to gain an understanding of the social relational elements that underlie the experience of loneliness in post-Soviet Russia and Bulgaria, I pose the following set of research questions. First, do numbers of children & child co-residence impact older adults' experience of loneliness? Also, is the impact of children similar across settings? Next, to consider relationships beyond the husband-wife, and

parent-child dyad, I ask, to what extent does having & co-residing with grandchildren alleviate the loneliness that often emerges in older adulthood? Lastly, I consider the question: what impact does widowhood have on older adults' loneliness and does the effect diverge by gender?

DATA & STUDY DESIGN

I draw upon the Generations and Gender Survey (GGS) (Vikat et al. 2005), a cross-national, comparative, and multidisciplinary study of “the dynamics of family relationships in contemporary industrialized countries” to characterize older adults' living arrangements, family structure and experiences of loneliness in Bulgaria and Russia. The choice of these two nations for comparative investigation is in part data driven, but it is also allows insights into the situations faced by older adults in countries that share many aspects of historical experience and demographic structure. As Table One indicates, the Bulgarian and Russian populations share many structural features, in particular nearly identical fertility rates and moderate to high share of population over the age of 65.

[Insert Table One about here]

I utilize the baseline survey of the GGS, conducted in 2004 by the Population Activities Unit of the United Nations Economic Commission of Europe (UNECE), to analyze living arrangements, family structure and other predictors of older adults' loneliness in Russia and Bulgaria. The GGS features a probability sample representing the study country's non-institutional population of 18 to 79 year olds. Data were collected through computer assisted, face to face interviews. To ensure comparability the same survey design, questionnaire, and instructions were adapted across countries, providing a unique opportunity for cross-national, comparative research.

While representative of national population, and extensive in its coverage, the GGS was not designed as a survey of the elderly. Use of a household roster tool means that basic demographic

information (e.g., age, sex, employment status) is available for all household members, irrespective of their age. The most extensive, detailed information in the survey is provided by, and with reference to, the head of household. Given this approach to data collection, my own analyses are limited in a few respects. First, in analyzing older adults' experience of loneliness I must delimit the sample in a way that may limit the study's generalizability. Specifically, in the multivariate analyses that follow the sample consists of heads of household only, as only heads of household were asked questions about loneliness and most other questions beyond basic demographic characteristics. At this point I caution that the sample is not one representative of all older adults in either Russia or Bulgaria. The divergence from representativeness is not known. The implications of the sampling and analytical approach will be elaborated in the concluding section of the paper. Second, while subsequent waves of data collection are planned, at this point the GGS data remain cross-sectional. As a result, I am limited in commenting on the causal relationships between older adults' family relationships and experience of loneliness.

Variables & Measurement

Loneliness is the dependent variable in the following analyses. A working definition for the concept is as follows: "Loneliness is an unpleasant feeling of dissatisfaction with existing social relationships, a perceived lack of intimacy, and a feeling of exclusion from social relationships that is influenced by some form of social relationship deficit (Iecovich et al. 2004: 308). This is similar to other definitions (e.g., Young 1982) which point to psychological distress deriving from absence of satisfying social relationships, as well as perceived social isolation (Koropecj-Cox 1998). It is distinct from, and need not correlate closely with, social isolation, which is thought of as an objective state of having a weak social network (Iecovich et al. 2004). De Jong Gierveld and colleagues (2006) further note that loneliness is a subjective, negative experience, the opposite of which is a feeling of embeddedness or belongingness.

I develop an index of loneliness by aggregating GGS participants' responses to a series of six questions assessing current life experience. The six statements are derived from the De Jong Gierveld Loneliness scale (De Jong Gierveld and Kamphuis 1985). A Rasch-type scale, the De Jong Gierveld scale is highly correlated with other loneliness scales, such as the UCLA Loneliness Scale (Pinquart 2003). Specifically, respondents were asked to indicate a yes, more or less, or no response to the following six statements: There are plenty of people that I can lean on in case of trouble; I experience a general sense of emptiness; I miss having people around; There are many people that I can count on completely; Often, I feel rejected; and, There are enough people that I feel close to. Items two, three and five were reverse coded such that, in the resultant index (with maximum score of 18 and minimum score of 6) high values indicate high degrees of loneliness.

There are three focal independent variables in the models which tap into older adults' family structures and living arrangements. First, I consider current marital status, or whether the older adult was currently married, or currently unmarried, at the time of the survey. Those currently cohabiting, a relatively small fraction of older adults, are grouped with the currently married. Unfortunately, the phrasing of the question in the GGS does not allow for a straight-forward separation of the unmarried category into widowed, divorced, and never married persons. Nevertheless, given the age of the cohorts and divorce trends in the countries, I surmise that the vast majority in this category are, indeed, widows and widowers. Second, I jointly assess number of children and living arrangements in a variable that delineates numbers of living adult children, and for older adults with living children, whether any child currently coresides in the same dwelling unit. The modal category, having two or more children but none coresiding, is the omitted, reference category in the models. This status is juxtaposed with the following categories: having no living children; having one, non-coresident child; having one, coresident child; and having two or more children with at least one coresident. Finally, to assess the role of

grandchildren in older adults' quality of life assessments, I measure whether older adults, a) have no grandchildren; b) have grandchildren, but none coresident; and c) have grandchildren, some of whom coreside in the same dwelling.

Control variables in the models tap into a set of individual level characteristics shown to correlate with loneliness in previous research. Age is included in the model as an interval variable. Controlling for age is essential, given the different age distributions across gender and other categories in the model, and also given that previous research finds loneliness increases with age. For the reasons discussed above, gender of the older adult is included in the model. Whether an older adult is currently retired, or still in the labor force, is controlled in the model, so as to consider whether retirement may involve severing social ties or otherwise generating social exclusion, and thereby, loneliness. The place of residence, whether it is urban or rural, is also included as a control variable in the model, as social changes and social structures with implications for loneliness are likely to diverge across types of place.

As previous models of loneliness (e.g., Fees et al. 1999) maintain, deterioration in physical health associates with loneliness for several reasons, for instance due to the lessened ability to maintain and interact in stimulating relationships. Thus, I include two measures which capture distinct dimensions of health – a global measure of self-reported health (i.e., health rated on a five-point scale from very bad to very good; and a dummy variable indicating the respondent's functional health (i.e., whether the older adult reports having a disability which limits ability to carry out normal, everyday activities).

Finally, one's economic situation also pertains to the experience of loneliness and other dimensions of quality of life. Due to the difficulty of assessing income and wealth through the GGS, I instead rely on a single measure which asked heads of household to provide a subjective estimation of their household's economic situation. In particular, they were asked to assess, given their average level

of monthly income, the level of difficulty encountered in ‘making ends meet.’ Difficulty was scored in one of six categories, ranging from “with great difficulty” to “very easily.” In the discussion of results that follows I elaborate on differences in health status, economic situation, and emotional wellbeing across men and women at different stages of the life course.

RESULTS

Before elaborating the multivariate analysis results, I first provide a descriptive picture of the GGS sample of older adults, both the broader sample of older adults surveyed, and the sample of household heads featured in the multivariate analyses. Table Two provides some information on older adults in the Russian and Bulgarian GGS, both those who fill several positions in the household (heads of household, spouses and parents of head of household), and heads of household only (i.e., the analytical sample in the regression analyses that follow). By way of summary, it is important to note that in both countries, but especially Russia, women outnumber men in the GGS elderly sample. In both countries the vast majority of persons over age 60 are retired, and between eight and nine percent report having a disability that limits daily functioning. Reflecting the long history of low fertility in Eastern Europe, the mean number of living children in both countries is below two. And, given this, and other aspects of familial and social relations, it is the minority experience among older adults in Bulgaria and Russia (i.e., 30-35 percent) to coreside with one or more adult children. Aside from the distributions by gender and marital status, the samples in Russia and Bulgaria are characterized more by similarity than by striking difference. Finally, it bears mentioning that the analytical sample differs from the larger sample of older adults in key ways. For instance, the head of household sample is younger on average, more likely to be married, and less likely to be coresiding with children (in part because living with children often means moving into a grown child’s home where that child is head of household). It is

important to take these sample characteristics into account when considering the analytical sample's generalizability to the full GGS sample, and the Russian and Bulgarian populations in general.

To provide additional description of the quality of life of older adults, relative to their younger counterparts, I present the relationship between age and loneliness, as well as age and physical health and economic wellbeing. The bivariate results depicted in Figures One, Two, and Three are based on an expanded sample of all GGS heads of household age 18 and older. Quick inspection of these figures indicates that each average measure of wellbeing, or quality of life, is lowest within the old age (60-74, 75 and older) categories. If older adult loneliness is a byproduct not only of family-based and other networks, but also of health and economic conditions, the marked worsening of these quality of life facets are also likely to play into states of loneliness for those in their sixties, seventies and beyond.

[Insert Figures One, Two and Three about here]

Multivariate Results

I use OLS regression to model older adult loneliness among heads of household age 60 and older in Russia and Bulgaria. As mentioned above, the GGS was designed for comparability across survey countries, thereby allowing for an easy side-by-side comparison of results. Nested OLS Regression results (unstandardized regression coefficients) for the Bulgarian and Russian sample are shown in Table Three. Before discussing the family relationship variables of interest, I will note associations for the social/demographic control variables in the models. First, age has a positive association with loneliness, however the positive relationship only reaches statistical significance in the Russian sample. This may be due to the fact that the interval measure, years of age, captures increments in loneliness associated with each year of age. A categorical measure, for instance one based on five year age categories, reveals a positive association between age and loneliness in both Russia and Bulgaria. Disability, too, exhibits this positive association with loneliness, but again disability is only associated

with a significant increase in loneliness among Russian older adults. In both Russia and Bulgaria there is a strong, negative relationship between physical health, economic wellbeing, and loneliness, such that those in poorer health and poorer economic situations also experience greater levels of loneliness. Last, and notably, net of other variables in the model, Bulgarian men and Russian men have levels of loneliness that far exceed those of their female counterparts.

[Insert Table Three about here]

The family relationship variables – marital status, children and child co-residence, and grandchildren – each exhibit interesting, and statistically significant associations with older adult loneliness in Bulgaria and Russia. In both settings, the widowed express much higher degrees of loneliness than their still married counterparts. This result meshes with much previous research indicating that the marital tie, which usually features most prominently in day to day activity and emotional life, is pivotal to satisfaction with one’s social relationships.

In addition to marriage, numbers of living children, which reflect both completed fertility as well as the survival of children, and the residential location of children, are also highly relevant to older adults’ social relationship satisfaction. Specifically, I find that, in terms of family structure, the loneliest of older adults in Russia and Bulgaria are those with no living children, followed by those with just one, non-coresident child. These groups are lonelier than the reference, modal category of elders with two or more children, none of whom coreside. Coresiding with children, while it is in the direction of reducing the experience of loneliness, does not have a statistically significant association with loneliness. These results suggest that decisions about family formation, and in particular fertility decisions, have lasting impacts upon the quality of life of older adults. Children, like spouses, are likely to assure against sentiments of social isolation in settings like Russia and Bulgaria where social integration through employment and state-sponsored programs have declined in the post-Soviet era.

Perhaps the most interesting results, and telling for advancing understanding of family relations and older adult loneliness, are those illustrating the relationship between having grandchildren, coresiding with grandkids, and the experience of loneliness. To demonstrate how the consideration of grandchildren mediates the relationship between own children and loneliness, I add the grandchildren and grandchild coresidence categorical variable in Model Two. A comparison of Models One and Two reveals that grandchildren, in part, mediate the effect of own children on loneliness. Having grown children not only means that older adults have offspring available for social and economic support and the regular contacts that stave off loneliness, it also often means that older adults may have grandchildren involved in their lives. In both settings, older adults with grandchildren exhibit significantly lower levels of loneliness than their grandchild-less counterparts. In Bulgaria, but not Russia, living together with at least one grandchild brings an even greater reduction in the degree of loneliness. This pattern of results sheds light on the role of extended family in quality of life, and perhaps the types of relationships that are critical for older adult emotional wellbeing.

Finally, in Model Three, the gendering of loneliness and the marital relationship is examined through the introduction of an interaction term. The results in Model Three suggest new insights into the role of gender in older adult social relationships. I find not only that, net of other variables, older adult males experience greater levels of loneliness than their female counterparts, but also that, in the case of Russia, the exacerbation of loneliness associated with widowhood is greater for men than for women. While there are several possible, valid explanations for this relationship, it suggests that, especially in Russia, women are protected from loneliness through a wider range of relationships than the spousal one, such as those to children, extended kin, friends and neighbors. For men, on the other hand, given their lifelong emphasis on the economic provider role, their ties to children, extended family

and others may be fewer and weaker, leaving them more susceptible to loneliness when faced with the loss of a spouse.

DISCUSSION

Loneliness is one of the several quality of life disadvantages afflicting older adults in Eastern Europe as the region undergoes a difficult transition from ‘red to grey.’ Previous research (in particular de Jong Gierveld 2008) reveals that older adult loneliness is significantly higher in Eastern European nations than in the Western European nations of France and Germany. The current paper delves further into the correlates of loneliness in older adulthood, finding that in Russia and Bulgaria loneliness is quite commonplace, especially among elderly men, and rises with age. Loneliness is found to correlate positively not only with widowhood, small family size and limited extended family relations, but also with economic deprivation and poor health. These findings are relevant for a host of policy related considerations, not the least of which are the implications of poor relationship quality for mortality and morbidity in late adulthood.

It is significant that, in Russia and Bulgaria, as elsewhere, loneliness is not simply a byproduct of small families and weak family ties. Rather, the threat of ‘multiple deprivations’ is apparent as loneliness is strongly, positively correlated with other quality of life impairments – economic insecurity, ill health, and disability. In other words, poor quality of life on one dimension appears to reinforce poor quality of life on other dimensions. This joint experience of myriad hardships, which are then reflected in older adults’ dissatisfaction with their personal relationships, is consistent with the so-called ‘litany of suffering’ expressed by older Russians as a means to articulate the insecurities they have incurred in the transition to capitalism (Pietilä & Rytkönen 2008).

Importantly, family structure appears to matter in buffering older adults from experiences of loneliness in these post-Soviet states. Being married, having several children, and notably, having and (in Bulgaria) living together with grandchildren correlate with positive assessments of one's social relationships. While having numerous children diminishes loneliness, coresiding together with them has no additional effect in either country. Several possible explanations for this pattern are that independent living is preferred in the post-Soviet era, or that proximity of children is what matters for loneliness, more so than shared living quarters. The findings about own children and grandchildren in holding loneliness at bay raise some concern given the steep fertility declines which are holding steady in Eastern Europe and promise to create even smaller families and weaker structures of family based support in the future.

The analyses also indicate that loneliness is another dimension of older adulthood that is highly gendered. While it is important to acknowledge that older women are far more likely to endure years of widowhood, a life stage that is particularly likely to be accompanied by increased loneliness, it is also important to note that, controlling for widowhood, family structure and other characteristics, both Russian and Bulgarian women express significantly less loneliness than their male counterparts. There are numerous explanations for this gender gap, most of which are tied to men's and women's different orientations to the family and household in the post-Soviet era. For one, as elsewhere, women's greater investment in social reproduction and 'kin keeping' activities generates greater embeddedness in family networks, both immediate and extended families, and extra-familial ties to neighbors and other significant others. Especially in the face of widowhood, these diverse personal network ties are likely to provide the supports, contacts, and closeness that provide for a sense of social relational satisfaction in later life. That men's sense of embeddedness, versus loneliness, is more contingent on their marital status than is the case for women is also apparent in Russia, where loneliness is exacerbated more so in

widowhood for men than for women. For men, not only does their heavy investment in the economic provider role mean lesser investment in developing kinship ties over the life course, it also means that the social exclusion wrought by retirement likely weighs more heavily upon them than it does upon women. And, added to this, experienced at the microlevel, the low life expectancy of males, especially in Russia, means that men will be more likely to see their personal networks eroded through friends' and coworkers' early deaths. In many ways, then, the patriarchal definitions of masculinity that held sway under the communist system in Russia and elsewhere in the Soviet bloc continue to bear out in the experience of loneliness among men entering older adulthood in the current, transitional era.

While it reveals many things, the current research is marked by several limitations which warrant mentioning and suggest further investigation. To begin, in its current state the GGS remains a cross-sectional survey. Lacking a longitudinal design it is difficult to parse out causality, and our assertions about the causal factors of loneliness must remain tentative, and phrased in terms of correlation. The absence of an extended time series also prevents our understanding the extent to which living arrangements and family relations changed in Russia and Bulgaria under the new social and economic regime. I presume, from extant historical and anthropological sources, that the changes have been marked, but empirical verification through comparable, time series data would assist in placing current family and living arrangements, and their consequences for social isolation and loneliness, in context.

The current paper considers relations with family – spouses, children, and grandchildren – as they relate to the experience of loneliness. While instructive, much information is lacking about the nature and scope of older adults' social networks. For one, I do not assess the quality of parent-child relations, or the extent of solidarity across generations in the survey. Limited, additional information provided in the GGS, for instance about the frequency of contact with nonresident children, could illuminate relationship quality to a greater extent. Additionally, the question of ties to friends,

neighbors, and other nonkin, as well involvement in organizations such as churches and community groups, is not addressed here. Although the GGS provides little information on these sorts of social ties and associations, I recognize that they are likely critical to older adults' satisfaction with their social relationships.

The comparative perspective lends insights into the experience of loneliness and how context matters in determining whether older adults experience loneliness versus embeddedness. The current, two country comparison could be expanded in meaningful ways, especially through the inclusion of Northern and Southern European countries that have not seen a dismantling of their social and economic systems, but which have witnessed even more dramatic population aging.

REFERENCES

- Abbott, Pamela A., Sergei Turmov, and Claire Wallace. 2006. "Health World Views of Post-Soviet Citizens," *Social Science & Medicine* 62(1):228-238.
- Ashwin, Sarah and Tatyana Lytkina. 2004. "Men in Crisis in Russia: The Role of Domestic Marginalization," *Gender and Society* 18(2)189-206.
- BAGSO. 2001. "Aging in Eastern Europe," Seniorenreport. 2/2001. Bundesarbeitsgemeinschaft der Senioren-Organisationen BAGSO).
- Bezrukov, V.V. and Verzhikovskaya. 1994. "Status Report from Ukraine," *Aging International* 21: 54-61.
- Chompalov, Ivan. 2000. "Brain Drain from Bulgaria Before and After the Transition to Democracy," paper presented at the Bulgarian Research Symposium and Network Meeting, Atlanta, GA, April, 2000.
- CIA World Factbook. 2009. <https://www.cia.gov/library/publications/the-world-factbook/> (accessed September 14, 2009).
- Coleman, David. 2006. "Europe's Demographic Future: Determinants, Dimensions, and Challenges," *Population and Development Review* 32:52-95.
- Demeny, Paul. 2005. "Policy Challenges of Europe's Demographic Changes: From Past Perspectives to Future Prospects," pp. 1 to 9 in M. Macura, L. Alphonse, MacDonald and W. Haug (eds), *The New Demographic Regime, Population Challenges and Policy Responses*. New York: United Nations.
- de-Jong Gierveld, Jenny. 2008. "Intergenerational Relationships and Transfers between Older Adults and their Co-resident and Not Co-resident Children." Paper presented at the 2008 European Population Conference, Barcelona, July, 2009.
- De Jong Gierveld, Jenny, Theo van Tilburg, and Pearl A. Dykstra. 2006. "Loneliness and Social Isolation," pp. 485-500 in *Cambridge Handbook of Personal Relationships*, A. Vangelisti and D. Perlman (Eds). Cambridge: Cambridge University Press.
- De Jong-Gierveld, Jenny and Theo van Tilburg. 1999. "Living Arrangements of Older Adults in the Netherlands and Italy: Coresidence Values and Behaviour and Their Consequences for Loneliness," *Journal of Cross-Cultural Gerontology* 14(1):1-24.
- De Jong-Gierveld, Jenny and Frans Kamphuis. 1985. "The Development of a Rasch-Type Loneliness Scale," *Applied Psychological Measurement* 9:289-299.
- Dykstra, Pearl A. 1995. "Loneliness among the Never and Formerly Married: The Importance of Supportive Friendships and a Desire for Independence," *Journal of Gerontology* 50B: S321-S329.

- Dykstra, Pearl A., Theo G. van Tilburg, and Jenny de Jong Gierveld. 2005. "Changes in Older Adult Loneliness: Results from a Seven-Year Longitudinal Survey," *Research on Aging* 27:725-747.
- Dykstra, Pearl A. 2009. "Older Adult Loneliness: Myths and Realities," *European Journal of Aging* 6(2):91-100.
- European Commission. 2006. "The Social Situation in the European Union 2005-2006: The Balance between Generations in an Ageing Europe," Directorate-General for Employment, Social Affairs and Equal Opportunities, Unit E.1, Eurostat – Unit F.3.
- Fees, Bronwyn S., Peter Martin, and Leonard W. Poon. 1999. "A Model of Loneliness in Older Adults," *Journal of Gerontology: Psychological Sciences* 54B: P231-P239.
- Fujisawa, Rie and Francesca Colombo. "The Long-Term Care Workforce: Overview and Strategies to Adapt Supply to a Growing Demand," OECD Health Working Papers, No. 44, Paris.
- Gachter, August 2002. "The Ambiguities of Emigration: **Bulgaria** since 1988," International Migration Paper No. 139, Geneva: The International Labour Office.
- Garilova, Natalia S. and Leonid A. Gavrilov 2009. "Rapidly Aging Populations: Russia/Eastern Europe," pp. 113-131 in *International Handbook of Population Aging*, Volume 1. Netherlands: Springer.
- Georgiev, Yasen. 2008. "Immigration to Bulgaria – Preconditions and Possible Developments," pp. 9 to 24 in *The Implication of E U Membership on Immigration Trends and Immigrant Integration Policies for the Bulgarian Labor Market*. Sofia, Economic Policy Institute.
- Geurts, Teun, Anne-Rigt Poortman, Theo van Tilburg, and Pearl A. Dykstra. 2009. "Contact between Grandchildren and their Grandparents in Early Adulthood," *Journal of Family Issues* 20(10):1-16.
- Giarrusso, R., M. Silverstein, and D. Feng. 2000. "Psychological Costs and Benefits of Raising Grandchildren: Evidence from a National Survey of Grandparents." In C. Cox (ed), *To Grandmother's House We Go and Stay: Perspectives on Custodial Grandparents* (pp. 71-90). New York: Springer.
- Goodwin, Robin. 2006. "Age and Social Support Perception in Eastern Europe: Social Change and Support in Four Rapidly Changing Countries," *British Journal of Social Psychology* 45:799-815.
- Hayslip, Bert Jr., and Patricia L. Kaminski. 2005. "Grandparents Raising Their Grandchildren: A Review of the Literature and Suggestions for Practice," *The Gerontologist* 45(2):262-269.
- Iecovich, Esther, Miriam Barasch, Mirsky, Julia, Kaufman, Roni, Avgar, Amos and Aliza Kol-Fogelson. 2004. "Social Support Networks and Loneliness among Elderly Jews in Russia and Ukraine," *Journal of Marriage and Family* 66:306-317.
- Johnson, D.P. and L.C. Mullins. 1987. "Growing Old and Lonely in Difference Societies: Toward a Comparative Perspective," *Journal of Cross Cultural Gerontology* 2: 257-275.

- Jylhä, M. & J. Jokela. 1990. "Individual Experiences as Cultural: A Cross-cultural Study on Loneliness among the Elderly," *Aging and Society* 10:295-315.
- Karyukhin, Eduard. 2008. "Country Report: Limited Opportunities for the Employment of Elderly People in Russia," paper presented at the International Sociology Association, RC11 meetings.
- Kaufman, Gayle and Peter Uhlenberg. 1998. "Effects of Life Course Transitions on the Quality of Relationships between Adult Children and Their Parents," *Journal of Marriage and Family* 60(4):924-938.
- Koropecyyj-Cox, Tanya. 1998. "Loneliness and Depression in Middle and Old Age: Are the Childless More Vulnerable?" *Journal of Gerontology: Social Sciences* 53B:S303-S312.
- Kraus, N., J. Liang, and S. Gu. 1998. "Financial Strain, Received Support, Anticipated Support, and Depressive Symptoms in the Peoples' Republic of China," *Psychology and Aging* 13:58-68.
- Long, M. Valora and Peter Martin. 2000. "Personality, Relationship Closeness, and Loneliness of Oldest Old Adults and Their Children," *Journal of Gerontology: Psychological Sciences* 55B: P311-P319.
- Lopata, M. 1995. "Loneliness," in G.L. Maddos, R.C. Atchley, J.G. Evans, C. E. Finch, D.F. Hultsch, R.A. Kane, M.D. Mezey, and E.C. Siegler (eds), *The Encyclopedia of Aging* (pp. 571-572). New York: Springer.
- Mesle and Vallin. 2002. "Mortality in Europe: The Divergence between East and West," *Population* 57:157-198.
- Ovseiko, Pavel. 2008. "Ageing Emerging Economies in Eastern Europe and Central Asia," *Ageing Horizons Brief*, Oxford Institute of Ageing, Oxford, UK.
- Papidus, G.W. 1995. *The New Russia*. New York: Westview Press.
- Peplau, L.A. and D. Perlman. 1982. *Loneliness: A Sourcebook of Current Theory, Research, and Therapy*. New York: John Wiley and Sons.
- Pietila, I. and M. Rytönen. 2008. "Coping with Stress and by Stress: Russian Men and Women Talking about Transition, Stress and Health," *Social Science & Medicine* 66:327-338.
- Pinquart, Martin. 2003. "Loneliness in Married, Widowed, Divorced and Never-Married Older Adult," *Journal of Social and Personal Relationships* 20:31-53.
- Rangelova, Rossitsa & Katya Vladimirova. 2004. "Migration from Central and Eastern Europe: The Case of Bulgaria," *South-East Europe Review for Labour and Social Affairs* 3:7-30.
- Rose, Richard. 1995. "Russia as an Hour-Glass Society: A Constitution without Citizens," *East European Constitutional Review* 4(3):34-42.

Rotkirch, A. 2000. *The Man Question: Loves and Lives in Late 20th Century Russia*. Helsinki, Finland. University of Helsinki.

Schoenmaeckers, Ronald C. and Lieve Vanderleyden 2006. "Intergenerational Solidarity, the Elderly and Aging," Population Policy Acceptance Study, 2006, Number 8, Federal Institute for Population Research.

Sik, Endre and Barry Wellman. 1999. "Network Capital in Capitalist, Communist, and Postcommunist Countries," pp. 225-254 in *Networks in the Global Village: Life in Contemporary Communities*. Boulder, CO: Westview Press.

Tchernina, Natalia V. and Efim A. Tchernin. 2002. "Older People in Russia' Transitional Society: Multiple Deprivation and Coping Responses," *Aging & Society* 22:543-562.

van Tilburg, Theo, Jenny de Jong Gierveld, Laura Lecchini, and Donatella Marsiglia. 1998. "Social Integration and Loneliness: A Comparative Study among Older Adults in the Netherlands and Tuscany, Italy," *Journal of Social and Personal Relationships* 15(6):740-754.

Velkoff, V.A. and K. Kinsella 2000. *An Aging World*. Washington, D.C: U.S. Census Bureau.

Victor, C.R., S.J. Scrambler, S.G. Shah, D. Cook, T. Harris, E. Rink, and S. De Wilde. 2002. "Has Loneliness Amongst Older People Increased? An Investigation into Variations between Cohorts," *Ageing & Society* 22:585-597.

Vikat, Andres, Gijs Beets, Francesco Billari, Christoph Buler, Martine Corijn, Aline Desesquelles, Tineke Fokkema, Alphonse L. MacDonald, Gerda Neyer, Ariane Pailhe, Antonella Pinnelli, Anne Solaz, and Zsolt. Speder. 2005. "Wave 1 Questionnaire," chapter two in *Generations and Gender Programme Survey Instruments*, Population Activities Unit, United Nations Economic Commission for Europe.

Walker, A. 1993. "Age and Attitudes: Main Results from a Eurobarometer Survey." Commission of the European Communities, Brussels.

Young, J.E. 1982. "Loneliness, Depression and Cognitive Therapy: Theory and Applications." In L.A. Peplau and D. Perlman (eds). *Loneliness: A Sourcebook of Current Theory, Research and Therapy*, pp. 379-405. New York: Wiley.

Table One. Basic Demographic Characteristics of the Bulgarian and Russian Populations (2009)

	Bulgaria	Russia
% 65 & Older	18%	14%
Population Growth Rate	-.8%	-.5%
TFR	1.4	1.4
Net Migration Rate	-3.1	.28
Sex Ratio, Age 65 (M:F)	.68	.44
Life Expectancy at Birth, M/F	70/77	59/73

Source: CIA World Factbook.

Table Two. Sample Descriptive Statistics for Older Adults in the GGS, age 60 and Older, Bulgaria & Russia, 2004

	Bulgaria - All Older Adults Who Are Head of Household, Spouse or Parent of		Russia - All Older Adults Who Are Head of Household, Spouse or Parent of	
	Bulgaria - Heads of Household Only (%)	Bulgaria - Heads of Household Only (%)	Russia - Heads of Household Only (%)	Russia - Heads of Household Only (%)
Female	52.7	49.8	64.6	69.4
Male	47.3	50.2	35.5	30.6
Age 60-69	59.5	58.5	56.2	57.5
Age 70-79	35.7	40.9	38.7	42.4
Age 80+	4.8	0.6	5.0	0.1
No Reported Disability	90.1	90	91.2	93.2
Self-reported disability	9.9	10	8.8	6.8
Retired	92.0	93.1	88.2	87.2
Working	8.0	6.9	11.8	12.8
Currently married	44.4	66.4	29.4	42.6
Not currently married	55.6	33.6	70.6	57.4
Mean Number of Children	1.95	1.81	1.97	1.8
Total Number of Living Children				
0	4.2	7.2	7.3	9.2
1	22.9	24.9	25.1	29.5
2	57.3	55	44.8	42.7
3	10.4	9.2	15.1	12.8
4 or more	5.2	3.7	7.7	5.8
Total Number of Coresident Children				
0	63.5	72.4	71.6	78.1
1	24.6	23.8	21.4	19.7
2 or more	11.9	3.8	7.0	2.2
Relationship to HH Head				
Head	40.5	100	55.8	100
Spouse of Head	26.6	--	24.1	--
Parent of Head	32.9	--	20.1	--
Urban, Sophia	14.8	15.8	--	--
Urban, Other metro	44.7	43.7	--	--
Rural	40.5	40.5	--	--
Russia - Rural	--	--	67.1	66
Russia - Urban	--	--	32.9	34
N	6,195	2,506	5,063	2,827

Source: Generations and Gender Survey, UNECE, 2004

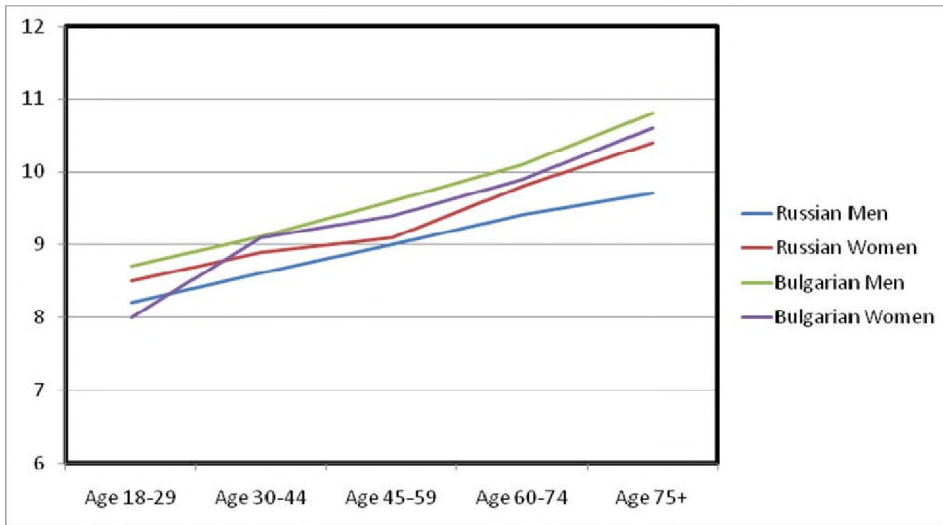
Table 3 OLS Regression: Loneliness Scale, Bulgarian & Russian Heads of Households, Generations and Gender Survey, 2004

	Bulgarian Heads of Household Loneliness Scale (coef/s.e.)			Russian Heads of Household Loneliness Scale (coef/s.e.)		
	Model 1 (coef/s.e.)	Model 2 (coef/s.e.)	Model 3 (coef/s.e.)	Model 1 (coef/s.e.)	Model 2 (coef/s.e.)	Model 3 (coef/s.e.)
No Living Children (ref: two or more children, none coresident)	0.90*** (0.22)	0.51* (0.24)	0.48* (0.25)	1.00*** (0.19)	0.24 (0.26)	0.25 (0.26)
One Child, Noncoresident (ref: 2 or more kids, none coresident)	0.57*** (0.16)	0.48** (0.16)	0.46** (0.16)	0.56*** (0.13)	0.49*** (0.13)	0.50*** (0.13)
One Child, Coresident (ref: 2 or more kids, none coresident)	-0.05 (0.17)	-0.10 (0.19)	-0.09 (0.19)	0.25 (0.19)	0.02 (0.20)	0.04 (0.20)
2+ Children, at Least 1 Child Coresident (ref: 2 or more kids, none coresident)	-0.39 (0.29)	-0.15 (0.30)	-0.14 (0.30)	-0.48 (0.28)	-0.49 (0.28)	-0.45 (0.28)
No Grandchildren (ref: 1+ Grandchildren, None Coresident)	--	0.57** (0.19)	0.54** (0.19)	--	0.88*** (0.20)	0.87*** (0.20)
Has Grandchildren, at Least One Coresident (ref: 1+ Grandchildren, None Coresident)	--	-0.63*** (0.18)	-0.62*** (0.18)	--	0.06 (0.17)	0.05 (0.17)
Not currently married (ref: Married/Cohabiting)	2.12** (0.13)	2.13*** (0.13)	2.44*** (0.21)	1.03*** (0.12)	0.98*** (0.12)	1.52*** (0.22)
Age	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.03* (0.01)	0.03** (0.01)	0.03** (0.01)
Female (ref: Male)	-0.37*** (0.12)	-0.32** (0.12)	-0.18 (0.14)	-0.42*** (0.13)	-0.38** (0.13)	-0.08 (0.16)
Retired (ref: in Labor Force)	-0.01 (0.23)	0.06 (0.23)	0.05 (0.23)	0.07 (0.17)	0.08 (0.17)	0.03 (0.17)
Has a Disability (ref: No disability)	0.27 (0.17)	0.26 (0.17)	0.26 (0.17)	0.60*** (0.14)	0.60*** (0.14)	0.61*** (0.14)
Self Reported Health: Very Good	-0.12 (0.43)	-0.07 (0.43)	-0.08 (0.43)	-1.71 (1.24)	-1.72 (1.24)	-1.63 (1.24)
Self Reported Health: Good (ref: Fair)	-0.49*** (0.14)	-0.47*** (0.14)	-0.48*** (0.14)	0.19 (0.25)	0.24 (0.25)	0.26 (0.25)
Self Reported Health: Poor (ref: Fair)	0.88*** (0.16)	0.90*** (0.16)	0.90*** (0.16)	0.79*** (0.12)	0.80*** (0.12)	0.80*** (0.12)
Self Reported Health: Very Poor (ref: Fair)	1.78*** (0.28)	1.78*** (0.28)	1.78*** (0.28)	1.51*** (0.22)	1.51*** (0.22)	1.52*** (0.22)
Very difficult to make ends met (ref: Some difficulty)	1.32*** (0.15)	1.28*** (0.15)	1.29*** (0.15)	1.36*** (0.14)	1.36*** (0.14)	1.40*** (0.14)
Difficult to make ends meet (ref: Some difficulty)	0.64*** (0.15)	0.62*** (0.15)	0.63*** (0.15)	0.66*** (0.14)	0.65*** (0.14)	0.68*** (0.14)
Fairly Easy to Make Ends Meet (ref: Some difficulty)	-0.23 (0.40)	-0.30 (0.40)	-0.31 (0.40)	-0.05 (0.25)	-0.10 (0.25)	-0.11 (0.25)
Easy to Make Ends Meet (ref: Some difficulty)	-0.51 (0.43)	-0.49 (0.43)	-0.50 (0.43)	0.24 (0.43)	0.29 (0.43)	0.21 (0.43)
Very Easy to Make Ends Meet (ref: Some difficulty)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.08 (1.13)	-0.02 (1.13)	-0.07 (1.13)
Location: Urban (ref: Rural)	-0.19 (0.12)	-0.18 (0.11)	-0.18 (0.11)	0.13 (0.11)	0.12 (0.11)	0.12 (0.11)
Female * Not Currently Married	--	--	-0.48 (0.26)	--	--	-0.77*** (0.26)
Constant	7.79** (0.75)	7.68** (0.75)	7.60** (0.75)	6.16** (0.72)	5.96** (0.73)	5.67** (0.73)
Observations	2424	2424	2424	2801	2796	2796
R-squared	0.25	0.26	0.26	0.16	0.16	0.16

Standard errors in parentheses

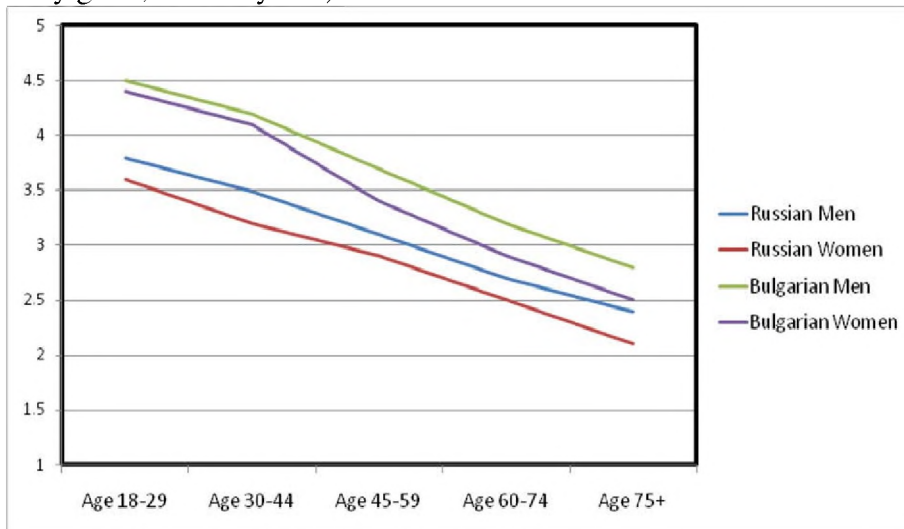
* significant at .05; ** significant at .01; *** significant at .001

Figure One. Loneliness Scale, By Age & Gender, Russian & Bulgarian Heads of Household (Loneliness Scale: Minimum score = 6; Maximum score = 18)



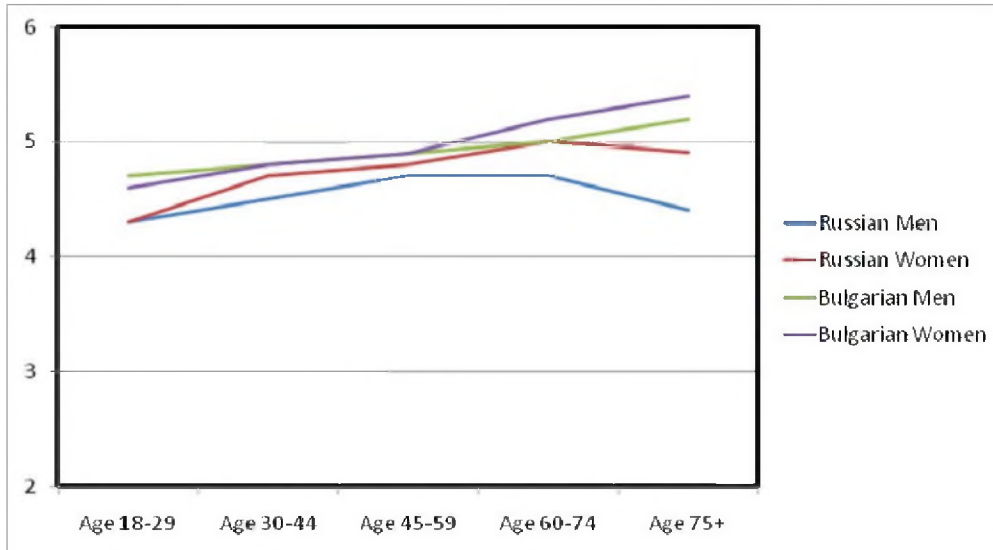
Source: Generations and Gender Surveys, Russia and Bulgaria

Figure Two. Self Reported Health, By Age & Gender, Russian & Bulgarian Heads of Household (5 = Very good; 1 = Very bad)



Source: Generations and Gender Surveys, Russia and Bulgaria

Figure Three. "Difficulty Making Ends Meet," by Age & Gender, Russian & Bulgarian Heads of Household (1= "Very easily"; 6 = "With great difficulty")



Source: Generations and Gender Surveys, Russia and Bulgaria