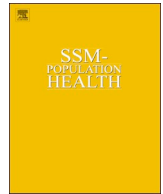




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Article

What determines gender inequalities in social capital in Ukraine?

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A B S T R A C T

Background: Social capital is a social determinant of health that has an impact on equity and well-being. It may be unequally distributed among any population. The aims of this study are to investigate the distribution of different forms of social capital between men and women in Ukraine and analyse how potential gender inequalities in social capital might be explained and understood in the Ukrainian context.

Method: The national representative cross-sectional data from the European Social Survey (wave 6) was used with a sample of 1377 women and 797 men. Seven outcomes that represent cognitive and structural social capital were constructed i.e. institutional trust, generalised trust, reciprocity, safety, as well as bonding, bridging and linking forms. Multivariate logistic regression and post-regression Fairlies decompositions were used for the analyses.

Results: There are several findings that resulted from the analyses i), access to institutional trust, linking and bridging social capital is very limited; ii), the odds for almost all forms of social capital (besides safety) are lower for men; iii), feeling about income and age explain most of the gender differences and act positively, as well as offsetting the differences.

Conclusion: Social capital is unequally distributed between different population groups. Some forms of social capital have a stronger buffering effect on women than on men in Ukraine. Reducing gender and income inequalities would probably influence the distribution of social capital within the society.

Introduction

Social capital as a social determinant has a recognised impact on equality of health and well-being (WHO, 2008). The term capital indicates that the concept can refer to the accumulation of different kinds of wealth, but as yet there is no universally-agreed definition of the concept, even though it has had its place in social epidemiology for more than 20 years. However, most definitions of social capital agree that this concept is about networks of people, their interactions and trust, as well as the reciprocity that emerges from their interactions. Social capital has been proven to provide benefits to both individuals and whole communities with regard to various outcomes including health and well-being (Moore & Kawachi, 2017).

Social capital is a complex concept which presents in different forms: structural and cognitive. These two forms are viewed separately within the relevant literature. Structural social capital measures participation and connectedness, while cognitive social capital reflects reciprocity, trust and sharing (Harpham, 2002). Structural social capital relates to interactions within associations and networking at social institutions and as such is usually categorised as either bonding, bridging or linking (Baum & Ziersch, 2003). Bonding social capital reflects horizontal tie connections and as a rule includes individuals who have similar demographic characteristics while measuring relations within

the community. Bridging social capital refers to outside community relations and, together with linking social capital, implies the ties that exist across different communities (Baum & Ziersch, 2003; Harpham, 2002). Linking social capital has a vertical-type of connection between agents with different powers: it gives access to the resources that are available beyond the bonding and bridging networks (Ferlander, 2007).

The most essential element of cognitive social capital is trust. It comes in different forms such as institutional trust, which reflects the trust we have in formal institutions of governance; generalised trust, which reflects our trust of strangers (sometimes referred to as social trust in relevant literature). Reciprocity is a reflection of the process of any investment into a social group or its members, and the equivalent repayment of resources from the same group to a specific provider (Baum and Ziersch, 2003). The next cognitive measure is not commonly used and is called the feeling of safety or security. In Moore and Kawachis glossary it is referred to as thick trust within the neighbourhood (Moore & Kawachi, 2017).

Social capital can be measured as an individual and collective attribute (Moore & Kawachi, 2017; Poortinga, 2006). Defined as a common good, social capital is perceived as a resource that is available for the whole population of a particular society or community (Kawachi & Subramanian, 2018; Moore & Kawachi, 2017). However, studies indicate that social capital is not distributed equally between different

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Table 1
Social capital and its measurements.

Forms of social capital and questions	Response Categories	
	Without social capital	With social capital
COGNITIVE SOCIAL CAPITAL		
Institutional trust		
How much you personally trust each of the institutions:	0 (No trust at all), 1, 2, 3	4,5,6,7,8,9, 10 (Complete trust)
<ul style="list-style-type: none"> ● Country parliament ● The legal system ● The police ● Politicians ● Political parties 		
Generalised trust		
Generally speaking would you say that most people can be trusted, or that you can't be too careful in dealing with people?	0 (You can't be too careful), 1, 2, 3	4,5,6,7,8,9, 10 (Most people can be trusted)
Reciprocity/Fairness		
Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?	0 (Most people would try to take advantage of me), 1, 2, 3	4,5,6,7,8,9, 10 (Most people would try to be fair)
Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?	0 (People mostly look out for themselves), 1, 2, 3	4,5,6,7,8,9, 10 (People mostly try to be helpful)
Safety		
How safe do you -or would you- feel walking alone in this area after dark?	Very unsafe, unsafe	Safe, very safe
STRUCTURAL SOCIAL CAPITAL		
Bonding		
How often do you meet socially with friends, relatives or work colleagues?	Never, less than once a month	Once a month, several times a month, once a week, several times a week, every day
How many people, if any, are there with whom you can discuss intimate or personal matters?	None	1, 2, 3, 4–6, 7–9, and 10 or more
Bridging		
Compared to the other people of your age, how often would you say you take part in social activities?	Much less than most, less than most	About the same, more than most, much more than most
Apart from special occasions such as weddings and funerals, about how often do you attend religious services nowadays?	Never, less often, only on special holy days	At least once a month, once a week, more than once a week, every day
In the past 12 months, how often did you get involved in work for voluntary or charitable organizations?	Never, less often	At least once every six months, at least once every three months, at least once a month, at least once a week
Linking		
Did you vote in the last national election?	No	Yes
There are different ways of trying to improve things in the country or help prevent things from going wrong. During the last 12 months, have you done any of the following?	No	Yes
<ul style="list-style-type: none"> ● Contacted a politician, government or local government official? ● Worked in a political party or action group? ● Worked in another organisation or association? ● Worn or displayed a campaign badge/sticker? ● Signed a petition? ● Taken part in a lawful public demonstration? ● Boycotted certain products? 		

population sub-groups, and that consequently this unequal distribution of social capital may contribute to facilitating further inequalities (Ferlander, 2007; Lin, 2000). As a result, groups where resources are scarce may try to make connections and strengthen their ties with groups where the resources that they lack are allocated (Lin, 2000; Poortinga, 2006).

Studies which look at the distribution of social capital at a national level, or refer to knowledge about possible inequalities in social capital between different population sub-groups in various societies, are lacking (Story, 2013). Different social, cultural, political, economic and demographic factors make people act differently in different settings, thus influencing the formation and levels of social capital. The association between socioeconomic factors and social capital is more consistent. Studies have shown that all forms of social capital are positively associated with higher socioeconomic positions (Ziersch, 2005; Eriksson, Dahlgren, Janlert, Weinehall, & Emmelin, 2010). In post-socialist countries such as Ukraine, the levels of social capital in general are perceived as low, compared to more stable welfare states (Rostila, 2013).

This study defines gender as being the socially constructed roles, behaviours, and attributes that given society considers appropriate for

women and men (WHO, 2016). This implies that gender, as with social capital, is a very context-bound concept. There is a limited amount of research about social capital and gender. Leeves and Herbert (2014) discuss how women tend to invest more in social relations, and thus have higher bonding social capital. Further, Moss (2002) presents how gendered expectations of women for care provision and family support may increase their bonding social networks, while limiting their bridging networks. In contrast, a study from Northern Sweden found that women were more involved in bridging social networks when compared to men (Eriksson et al., 2010). Further, it has been found that the kind of associations women and men are involved in differs: Lowndes found that men tend to be more active in sports and recreational associations, while women are more active in associations related to social services and health (Lowndes, 2000). Similarly, Son and Lin found civic action to be gendered, where women were more involved in expressive actions (Son & Lin, 2008). There is no clear answer as to whether institutional trust is associated with gender, just as there is no consensus concerning generalised trust, where some research shows that men exhibit higher generalised trust, while other research shows the opposite.

In this study, we want to investigate the distribution of different

forms of social capital between men and women in Ukraine and analyse how potential gender inequality in social capital might be explained and understood in the Ukrainian context.

Methods

Data source

In this study, we used the 6th wave of cross-sectional survey data from the [European Social Survey \(ESS\) in Ukraine collected in 2012/2013](#). The ESS was designed as a nationally-representative, repeated, cross-sectional study in more than 30 countries and has been run every two years since its establishment in 2001. The study consists of face-to-face interviews with a core questionnaire and a special rotating module that changes with every round. The ESS collects data on various attitudes and beliefs in Europe on the most enduring social topics and, in addition, includes socio-demographic background data on the population from 15 years old and above. The quality of data was assessed by the ESS Core Scientific Team and the assessment included the evaluation of measurement instruments, and the assessment of the quality of the output (ESS).

Outcome variables

We measured seven different outcomes that represented different forms of cognitive and structural social capital. These included bonding, bridging and linking social capital, which represented structural social capital and institutional trust, and generalised trust, reciprocity/fairness, and feeling of safety, which represented cognitive social capital. The questions used to measure each type of social capital and their response categories, mostly on the Likert Scale, are presented in [Table 1](#) below. The table also shows how the respondents were categorised into those with social capital and without social capital based on their responses to the questions.

Independent variables

We analysed several explanatory variables in this study, including sex, age, education, presence of children at home, cohabitee status, and feelings about income sufficiency (as a proxy for income and financial well-being).

Age was categorised into four groups: 15–20, 21–40, 41–60 and over 60. We set the upper age category at 60 as this was the pensionable age for both women and men. Based on their highest level of education, the respondents were categorised into those with primary, secondary and tertiary education. A respondent was categorised as a cohabitee if living together with a partner, irrespective of their marital status.

We used information about feelings on income sufficiency as a proxy for socio-economic status, since questions about income are considered sensitive and the data contains a lot of missing values on this variable. The question read, “which of the descriptions comes closest to how you feel about your households income nowadays?” We categorised the responses into those who could cope (which included responses of living comfortably on present income and coping on present income), those for whom it was difficult to cope (which related to the response of finding it difficult on present income) and very difficult to cope (which related to the response of finding it very difficult on present income). Those who stated do not know or refused to answer were coded as missing data.

Statistical analyses

We conducted a series of multivariable logistic regression analyses to assess independent factors related to each of the binary outcome variables. We estimated the odds ratio for sex and other independent variables for each form of social capital. We conducted post-regression

decomposition analysis to evaluate the gender differences in each form of social capital and any factors that could explain the observed gender differences. Oaxaca-Blinder decomposition is a commonly-used method within decomposition analysis. However, as the outcome variables in this study were dichotomous variables, we used the Fairlie method for non-linear decomposition ([Fairlie, 2005](#)). The decomposition method partitions differences between mens and womens social capital into one part arising from both genders having different characteristics (the explained component) and a second part based on the differential effects of the characteristics of men and women (the unexplained component) ([Fairlie, 1999, 2005; Sinning, 2008; Bauer and Sinning, 2008](#)). We also reported contributions made by each of the characteristics in measuring gender inequality in social capital.

Positive contributions support the direction of any inequality, i.e. have a positive effect on it, while negative contributions offset the gender gaps in social capital i.e. lessen inequality.

All the analyses were conducted in Stata 13 (StataCorp, 2013) and, for the Fairlie decomposition, we used the seed number 123456 to ensure reproducibility and randomised the order of variables in the decomposition.

Ethical consideration

Ethical clearance from the regional Ethical Board in Umeå, Sweden was obtained for this research (DNR 2013/447-31Ö).

Results

A total sample of 1377 women and 797 men were included in this study. Characteristics of study respondents are presented in [Table 2](#) for women and men separately. There were more men who lived with a partner than women, while there were more women who lived with children at home than men. More women than men reported that they could not cope and had more income-related difficulties to cope with in their lives.

In general, women had more cognitive and structural social capital, particularly for reciprocity/fairness (women vs. men – 51% vs. 43%, $p < 0.001$), generalised trust (63% vs. 58%, $p = 0.037$), bridging social capital (28% vs. 21%, $p < 0.001$), and bonding social capital (75% vs. 72%, $p = 0.046$), as shown in [Table 3](#). In contrast, men felt safer, with a difference of 20% between men and women (64% vs. 44%, $p < 0.001$). Gender differences in institutional trust and linking social capital were not statistically significant ($p > 0.05$).

Table 2
Characteristics of the respondents in Ukraine (N = 2,174).

Characteristics	Women (n = 1377)	Men (n = 797)
	%	%
Age		
15–20	5	6
21–40	30	36
41–60	32	32
61+	33	26
Education		
Tertiary	24	22
Secondary	60	65
Primary	16	13
Cohabitee		
Yes	51	61
No	49	39
Children at home		
Yes	49	38
No	51	62
Feelings about income		
Coping	22	30
Difficult	45	44
Very difficult	31	23

Table 3
The levels of different forms of social capital among the study respondents in Ukraine (N = 2,174).

Forms of social capital	Women (n = 1377) %	Men (n = 797) %	Chi square (p-value)
% of respondents with cognitive social capital			
Institutional trust	18	16	0.61 (0.435)
Generalised trust	63	58	4.35 (0.037)
Reciprocity/fairness	51	43	13.27 (< 0.001)
Safety	44	64	78.42 (< 0.001)
% of respondents with structural social capital			
Bonding	75	72	3.99 (0.046)
Bridging	28	21	15.43 (< 0.001)
Linking	5	6	1.92 (0.166)

Factors related to cognitive and structural social capital among the study respondents in Ukraine are presented in Table 4. The results show that men had less odds on having reciprocity/fairness (Odds Ratio 0.76; 95% Confidence Interval 0.62–0.93), as well as less bonding (0.67; 0.53–0.85) and bridging social capital (0.71; 0.56–0.90), but they had higher odds on feeling safe (2.22; 1.79–2.75) than their female counterparts. Cohabiting and having children at home did not show any significant associations with any form of social capital.

Cognitive social capital

The results showed that men had less odds on having reciprocity/fairness (Odds Ratio 0.76; 95% Confidence Interval 0.62–0.93), but they had higher odds on feeling safe (2.22; 1.79–2.75) than their female counterparts. The factors of lowest completed education level and aged older than 60 were significantly related to institutional trust. The group of the population with primary education had higher odds on experiencing institutional trust compared to those with a higher level of completed education (1.71; 1.09–2.69). Feelings of any coping difficulties while living on present income were also significantly related to having a reduced generalised trust and sense of reciprocity/fairness, with an approximately 30% less likelihood of reporting this social capital among those with difficulty coping using their income.

Table 4
Factors related to social capital among the study respondents in Ukraine (N = 2,174).

	Cognitive social capital Odds Ratio (95% CI)				Structural social capital Odds Ratio (95% CI)		
	Institutional trust	Generalised trust	Reciprocity/fairness	Safety	Bonding	Bridging	Linking
Sex							
Female	1	1	1	1	1	1	1
Male	0.93 (0.71–1.23)	0.84 (0.68–1.03)	0.76 (0.62–0.93)	2.22 (1.79–2.75)	0.67 (0.53–0.85)	0.71 (0.56–0.90)	1.11 (0.72–1.72)
Age							
15–20	1	1	1	1	1	1	1
20–40	0.76 (0.43–1.32)	0.90 (0.54–1.49)	1.03 (0.63–1.68)	0.99 (0.60–1.64)	0.71 (0.35–1.43)	0.77 (0.45–1.32)	2.55 (0.57–11.42)
40–60	0.65 (0.37–1.13)	0.81 (0.49–1.35)	1.04 (0.64–1.58)	0.81 (0.49–1.34)	0.42 (0.21–0.84)	0.78 (0.46–1.32)	3.13 (0.71–13.72)
60+	0.54 (0.32–0.93)	0.84 (0.52–1.37)	1.01 (0.64–1.60)	0.62 (0.38–1.00)	0.36 (0.19–0.71)	0.87 (0.52–1.46)	3.10 (0.70–13.67)
Education							
Tertiary	1	1	1	1	1	1	1
Secondary	1.13 (0.82–1.55)	0.84 (0.65–1.08)	1.09 (0.85–1.39)	1.16 (0.90–1.50)	0.89 (0.66–1.18)	0.91 (0.69–1.20)	0.55 (0.34–0.88)
Primary	1.71 (1.09–2.69)	0.86 (0.60–1.25)	1.31 (0.91–1.87)	1.26 (0.87–1.83)	0.83 (0.55–1.25)	0.98 (0.66–1.46)	0.20 (0.07–0.52)
Cohabitee							
Yes	1	1	1	1	1	1	1
No	1.12 (0.85–1.47)	0.91 (0.73–1.13)	0.98 (0.79–1.21)	0.93 (0.74–1.16)	0.81 (0.63–1.04)	0.97 (0.77–1.23)	0.98 (0.63–1.54)
Children at home							
Yes	1	1	1	1	1	1	1
No	0.98 (0.73–1.30)	0.97 (0.78–1.20)	0.89 (0.72–1.10)	1.06 (0.85–1.32)	1.26 (0.99–1.60)	0.85 (0.67–1.08)	0.94 (0.60–1.47)
Feelings about income							
Coping	1	1	1	1	1	1	1
Difficult	0.84 (0.62–1.14)	0.68 (0.53–0.88)	0.72 (0.56–0.92)	0.88 (0.68–1.14)	0.70 (0.52–0.96)	0.98 (0.74–1.28)	1.08 (0.65–1.81)
Very difficult	0.70 (0.47–1.01)	0.68 (0.51–0.91)	0.72 (0.54–0.96)	0.74 (0.55–0.99)	0.50 (0.36–0.70)	0.69 (0.49–0.96)	1.01 (0.54–1.88)

Respondents with extreme difficulties in coping with living on their present income had less odds on feeling safe (0.74; 0.55–0.99).

Structural social capital

The results showed that men had less odds on bonding (0.67; 0.53–0.85) and bridging social capital (0.71; 0.56–0.90) than their female counterparts. In addition, people aged 40+ (60% less compared to those aged 15–20), those with difficulty coping with their income (ranging from 30% among those with difficulty to 50% among those with extreme difficulty) also reported less odds on bonding social capital. Respondents with extreme difficulties in coping with their income also had 30% less bridging social capital. Out of all socio-demographic factors, only lower levels of education showed a significant association with linking social capital.

We observed no significant differences in institutional trust, generalised trust and linking social capital between women and men (as shown in Table 4), so the subsequent decomposition analyses of the determinants of gender inequality for these three forms of social capital were not presented (as shown in Table 5). In addition, there were no difference that could have been explained by determinants for bridging social capital, so these results are not presented either.

The differences in social capital between men and women varied for all forms of social capital with a higher probability among women for reciprocity/fairness and bonding forms of social capital, but not for safety. The gender difference with regard to bonding social capital could be mostly explained by the determinants (–59.6%) of age (–14.5%) and feelings about income (–25.1%) that were significant at p = 0.05 level. Age explained almost half of the differences in feeling safe that were reported by men and women (4.3% of the difference of 8.3%, p = 0.006). Feeling about income was also a significant determinant of the gender differences in reciprocity (p = 0.021) and bonding social capital (p < 0.001).

None of the other factors contributed significantly to the differences in social capital between men and women, and none of the factors included in the analysis explained the gender gap that exists in bridging social capital.

Table 5
Decomposition analyses of gender inequality in social capital among the study respondents in Ukraine (N = 2,174).

	Cognitive social capital				Structural social capital		
	Institutional trust	Generalised trust	Reciprocity/ fairness	Safety	Bonding	Bridging	Linking
Probability of access among women	0.175	0.631	0.516	0.445	0.770	0.276	0.053
Probability of access among men	0.172	0.597	0.451	0.654	0.726	0.213	0.055
Difference in access between men and women	0.002	0.034	0.065	-0.209	0.044	0.063	-0.002
Difference that were explained by the determinants	-0.008	-0.007	-0.003	-0.017	-0.026	0.000	0.003
% explained by the determinants		-19.6%	-4.2%	8.3%	-59.6%		
Explained contribution (%)							
Age		-0.0023 (p = 0.373)	-0.0003 (p = 0.925)	-0.0089 (p = 0.006)	-0.0064 (p < 0.001)		
Education		-6.4% 0.0016 (p = 0.236)	-0.4% -0.0010 (p = 0.479)	4.3% -0.0016 (p = 0.294)	-14.5% 0.0002 (p = 0.788)		
Cohabitee		-3.1% -0.0011 (p = 0.429)	-0.4% -0.0003 (p = 0.842)	0.8% -0.0006 (p = 0.588)	0.6% -0.0037 (p = 0.114)		
Children at home		3.5% 0.0012 (p = 0.758)	6.4% 0.0045 (p = 0.286)	1.1% -0.0022 (p = 0.609)	-12.3% -0.0054 (p = 0.066)		
Feelings about income		-17.8% -0.0061 (p = 0.007)	-7.6% -0.0054 (p = 0.021)	1.9% -0.0040 (p = 0.075)	-25.1% -0.0110 (p < 0.001)		

Discussion

This study highlights several important findings. First, some forms of social capital, such as institutional trust, linking and bridging social capital are very limited in Ukraine. Second, there are gender differences in both structural and cognitive social capital, with the largest gender differences that favour women being observed in bonding, which belongs to the structural form. Third, this study also shows how sex, age, levels of education, cohabitee status, presence of children at home, and feelings about income explain the inequalities in social capital in Ukraine. Except for safety, the odds on almost all forms of social capital are lower for men. No significant gender differences are observed for linking social capital and institutional and generalised trust. Except for the offsetting effect of age and feelings about income for bonding social capital, the other determinants do not make significant contributions to explanations for the gender gap. However, feelings about income offset the inequality for reciprocity/fairness, while age supported the inequality surrounding safety.

Levels of social capital in Ukraine

The overall institutional trust, linking and bridging social capital in Ukraine are very limited. This is also confirmed by previous studies about the nations generally low levels of social capital. (Ferlander, 2007; Åberg & Sandberg, 2017). In addition, institutional trust and linking social capital do not differ between Ukrainian women and men, which is not surprising considering the vertical nature of both these forms of social capital. Linking social capital represents what people do and institutional trust measures how they feel regarding the same level of trust. Post-Soviet societies are characterised by very low levels of institutional trust, which have epitomised their societies since the time of the Soviet Union. Referring to Putnam, Szretzer and Woolcook (2004), Ferlander (2007) mentions that linking social capital can work for negative purposes such as suppression and corruption.

Gender inequalities in different forms of social capital

The highest levels of social capital are shown for generalised trust and bonding social capital for women. This is in line with prior research

that shows that women in general are more likely to socialise and have close friends. Hall, (1999) in his investigation into social capital in Britain (1999) found, for example, that women devoted more time to visiting friends than did men, and Kawachi and Berkman (2001) refer to studies showing that women tend to maintain intimate emotional relationships more than men. In addition, Ukrainian society is characterised by informal contacts.

The higher level of generalised trust reported by women can be explained by the fact that women tend to believe strangers more than men do (Kaasa & Parts, 2008). In previous studies generalised trust varies in results: some studies show higher social trust among women while some show the opposite (Kaasa & Parts, 2008).

Gender differences for institutional trust and linking social capital were very small and insignificant, hence the differences were not decomposed. The demographic and socioeconomic factors that are included show a -59.6% gender gap for bonding social capital. The strongest explanatory factors for the gender gap in bonding social capital (in favour of women) were age and feelings about income. This implies that women are more likely to socialise with friends and have at least someone to discuss personal matters with compared to men, despite the fact that they are less able to cope with life on their current incomes.

When it comes to gender, previous research shows that formal participation in networks for women is lower, but for informal participation they are higher (Ferlander et al., 2016). Fidrmuc and Gërkhani (2004) give the explanation that womens social capital is more family-based and leads to higher trustworthiness and norms, i.e. bonding social capital leads to higher reciprocity. Our results did not show a significant association between gender and institutional trust, which is in line with previous studies (Kaasa & Parts, 2008; Rose, Mishler, & Haerperfer, 1997).

Prior studies have shown that in countries with hierarchical religions such as Catholicism, Islam, Orthodox Churches, there is less social capital than in protestant countries (Fukuyama, 1995; Putnam et al, 1993). Ukraine has Orthodox religion as the most prevalent, so one of the explanations for general levels of social capital can be found here. Another explanation can be that countries that are less stable have peculiarities that are often not taken into account when measuring social capital. The conclusion that Carlson makes in his research on why

European countries are divided by social or financial income coincides with our results: that in post-soviet countries (in our case, Ukraine), financial dissatisfaction is reflected in the trust levels as well (Carlson, 2004). In addition, Ferlander (2007) characterises post-soviet societies as those that are driven by informal social networks, because the formal ones are lacking there. Perhaps that is why the widest explanation according to the determinants used here belongs to bonding social capital.

Socioeconomic determinants related to social capital in the Ukraine

There is no precise answer as to which determinants play the most important roles in social capital. Group of authors put the emphasis on family, education, social status and personal income (Kaasa & Parts, 2007; Fidrmuc & Gërzhani, 2004) while some others ascribe it to the efficiency of the public institutions, association of individuals in networks, and income inequality (Rothstein & Stolle, 2003).

There is no single answer for how age impacts social capital. As Kaasa & Parts state, there is a positive association between engagement in formal networks and age, but a negative association between involvement in informal networks and older age. In our study, we found a negative association between bonding social capital and people aged 40+, which can possibly be explained by a full-time engagement in work and other formal activities. People in this age group might be more occupied by work and family duties, and therefore have less ability to socialise with friends.

It is not very clear how education is related to institutional trust. Some studies have found a positive association between high education and institutional trust while other studies have found the reverse. Furthermore, a consistent pattern has been found in the association between institutional trust and having a higher income (Kaasa & Parts, 2008). In our present study, we found a significant association between higher education and low institutional trust. People with a lower level of education have higher institutional trust, suggesting that they trust what politicians say, while highly-educated people are more prone to analyse the laws and view the national situation from a global perspective.

Prior research shows that higher education and income coincide with high interpersonal trust (Kaasa & Parts, 2008). We also observed a negative association between income and generalised trust. This may be explained by the connections that having access to certain circles may give; in other words special benefits that could be provided through special permissions. This is a recognised system of favour, known from the times of the USSR (Rostila, 2013).

Strengths and limitations of the study

There is very little research on social capital and its determinants conducted in a Ukrainian setting and our study is one of the few nationally-representative studies in Ukraine that attempts to fill this gap in knowledge. One of the strengths of this study is that it assesses different forms of social capital, both the cognitive and structural, which gives us a more comprehensive understanding about social capital among the Ukrainian population. The use of decomposition analysis to evaluate factors that contribute to gender differences in social capital sheds light on potential entry points for intervention that might close the gaps in social capital among women and men in Ukraine.

The cross-sectional nature of this study does not allow us to ascertain causality between the determinants and social capital. The choice of cut-off points in the Likert scale to differentiate respondents with high and low social capital was arbitrary and based on the distribution of the data which might lead to a misclassification bias. We only based our analyses on the respondents who had complete data for all the questions (complete case analyses). As the proportion of missing data ranged only from 3% to 8% (for analysis on safety), we believe the estimates from the complete case analysis are robust.

Conclusions and public health implications

Some forms of social capital, especially those of institutional trust and linking and bridging social capital are very low in Ukraine. Ukrainian women have higher levels of all forms of social capital, except for safety and linking social capital. The gender gap in linking social capital and institutional trust was not statistically significant. Age and feelings about income explain the gender gaps observed in reciprocity, safety and bonding social capital. Age and feelings about income offset gender inequality for bonding social capital.

Gender differences in social capital could be eradicated by promoting the determinants that offset the inequality (i.e. have a negative effect on inequality) and demoting the determinants that contribute positively to the inequalities. In our case, age and feelings about the income offset the inequalities and should be targeted by national strategies. Extremely low pensions, stressful living and the unequal provision of health systems make peoples conditions very vulnerable and increase inequality. The prevention and treatment policies for health, and the promotion of a gender-equal societal structure, would help to diminish gender inequalities in social capital.

Ethical consideration

Ethical clearance from the regional Ethical Board in Umeå, Sweden was obtained for this research (DNR 2013/447-31Ö).

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Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.ssmph.2019.100383>.

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