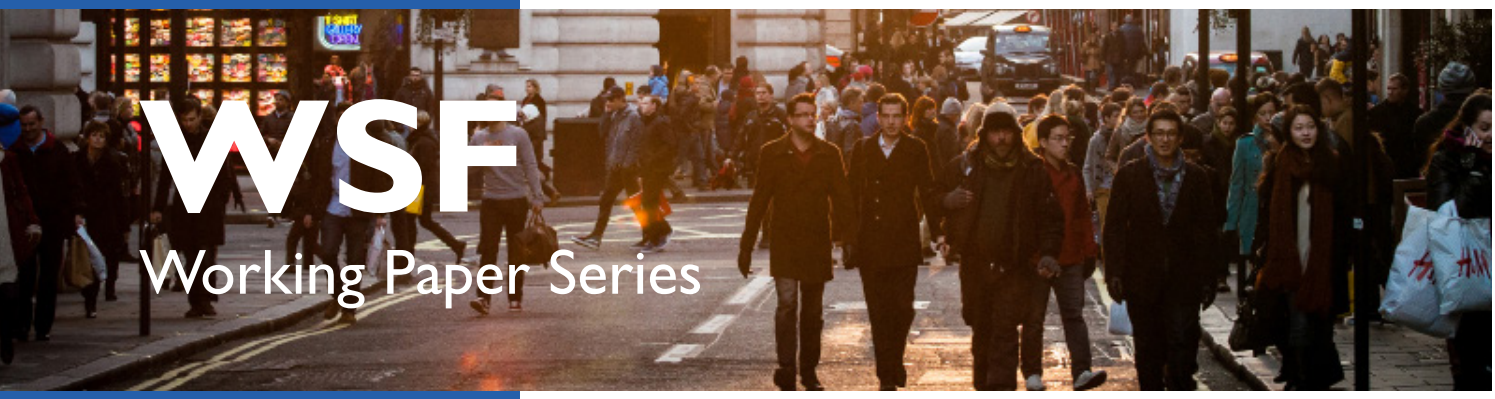

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Gender Differences in Knowledge about Healthcare Eligibility among Migrants in Denmark, the Netherlands and Germany

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Gender differences in Knowledge about Healthcare Eligibility among Migrants in Denmark, the Netherlands and Germany

Verena Seibel

Introduction

Public healthcare is one of the main pillars of European welfare states and has experienced an increasing immigration of foreign-borns from different origin countries within the last decades. Whereas migrants' use of public healthcare is increasingly studied (Mustard et al. 1998; Rechel et al. 2013; Mantwill and Schulz 2017) as well as their provision of healthcare (Bettio, Simonazzi, and Villa 2006), little is known about their actual knowledge with regards to their rights to access public healthcare, hence, their healthcare eligibility. Moreover, healthcare is a female domain, it is very likely that gender plays a crucial role in understanding the extent to which migrants are aware of their healthcare rights. Although women are generally found to have fewer knowledge about welfare rights (Gutsman and Steinmeier 2015), the pattern might be different with regards to healthcare. Women are responsible not only for their own health but for their family's health as many studies show (Mustard et al. 1998; Case and Paxson 2001; Bettio, Simonazzi, and Villa 2006; Igel, Braehler, and Grande 2010; Read & Gorman 2010). If migrant women are the keeper of healthcare knowledge, policies have to target them specifically in order to guarantee a successful healthcare coverage among the migrant population.

This paper therefore sheds light on the question to what extent migrants are aware of their healthcare eligibility, whether there are gender differences and why. I argue that migrant men and women differ in their knowledge about healthcare rights because they vary in their self-interest in the topic of healthcare as well as in their amounts of human capital, and the extent of their social networks. Moreover, I hypothesize that the gender gap should be particularly

prevalent among migrant groups from countries with traditional gender roles since in these countries men and women are socialized into gender-specific healthcare behaviour and tap quite different sources of information due to gender segregation. Using unique data from the Migrants' Attitudes toward the Welfare State (MIFARE) (Bekhuis, Fage Hedegaard, Seibel, Degen, and Renema 2018; Lubbers, Diehl, Kuhn, and Larsen, 2018) I study nine different migrant groups from EU and non-EU countries in three receiving countries: The Netherlands, Denmark, and Germany. I show that migrant women indeed possess more knowledge about their healthcare eligibility than migrant men and that this gender gap can be mainly explained by migrant women's larger exposure to healthcare and stronger language skills. Moreover, I find that this gender gap is indeed particularly prevalent among migrant groups who origin from conservative countries where traditional gender roles are the norm.

Theoretical Background

Self-interest

The extent to which migrants possess knowledge about the access to public healthcare is likely to depend on the degree of necessity and self-interest with regards to the issue. The necessity to use healthcare implies a general interest in the topic and increases the likelihood of making an effort to get informed about this topic. According to Lusardi (2003), who conducted a study over planning and saving for retirement, the general interest in welfare topics depends among others on the extent to which people gain from gathering information about the issue; hence, migrants who have no need in accessing healthcare might be less interested in acquiring knowledge about their right to access this welfare service. This goes in line with research on information processing according to which self-interest does influence attention to certain information sources (see Cassino, Taber and Lodge 2007). The self-interest in healthcare thereby does not have to be acute: Already the anticipation of future needs impacts our current

attitudes and actions (Iversen and Rosenbluth 2006). Hence, migrants who anticipate that they will be in need of certain welfare programs in the future might also be more eager to acquire knowledge about their eligibility to use this welfare service.

With regards healthcare, personal health and the usage of healthcare facilities is therefore likely to impact migrants' likelihood of possessing knowledge about their eligibility to use this service. Significant gender differences exist in this regard: Several studies have found migrant men to be of better health than migrant women (Cooper 2002; Malmusi, Borrell, and Benach 2010; by Dias, Gama, and Martins 2013). This is mainly because male migrants, very often first movers, are positively selected with regards to their health, also known as the 'healthy migrant effect' (McDonald and Kennedy 2004; Acevedo-Garica, Bates, Osypuk, and McArdle 2010) whereas such selection bias occurs less often among female migrants. Also, migrant women's health is impacted by 'multiple discrimination' on the grounds of gender and ethnicity and their often structurally disadvantaged positions within society (Cooper 2002).

Female migrants also make more use of healthcare services than male migrants (Mustard et al. 1998; Mantwill and Schulz 2017), which can be partly attributed to their general lower health compared to men. Another factor is migrant women's dominant use of reproductive health services due to pregnancy and childbirth (Igel, Braehler, and Grande 2010). However, next to a stronger necessity of healthcare among female migrants, women generally show a greater interest in health than men (Igel, Braehler, and Grande 2010). Moreover, women are often responsible for not only they own health, but the health of their family. Studies show that mothers are the main responsible for their children' health (Case and Paxson 2001) and that women are more involved in care-taking activities of their family than men (e.g. Mustard et al. 1998; Read & Gorman 2010). Hence, female migrants' poorer health and frequent utilization of healthcare implies a stronger interest in the topic of healthcare compared to male migrants

which in turn is assumed to increase female migrants' efforts to get informed about their social rights with regards to healthcare in the receiving country.

H1: Female migrants know more about their healthcare eligibility than male migrants because of their stronger self-interest in the topic.

Human Capital

Human capital is one of the major concepts associated with knowledge. Welfare programs are highly complex and bureaucratic, with multiple rules and exceptions concerning the eligibility of people (Hernandez, Malherbet and Pellizzari 2004). Therefore, to acquire knowledge about healthcare programs, a certain amount of human capital is necessary. With regards to migrants, two human capital factors seem to matter significantly: Language skills and education. Studies suggest that low language skills are a major barrier to access to health information (Kreps and Sparks 2008). Migrants who do not speak the native language well are not able to read information brochures or to get adequately informed by relevant institutions. Hence, they face trouble acquiring full knowledge about their rights to access welfare programs. Next to language skills, education is likely to impact knowledge acquisition about access to healthcare in the receiving country. Though welfare knowledge is often not transmitted within schools, schooling enables the cognitive ability to understand complex issues such as welfare accessibility (Kingston, Hubbard, Lapp, Schroeder, and Wilson 2003). Indeed, a study on knowledge about pension in the US shows that people who are higher educated know significantly better informed about their pension rights and entitlements than people with lower education (Gustman and Steinmeier 2005) as higher educated people are assumed to better understand complex issues. It is therefore likely that migrants with high levels of education possess more knowledge about their healthcare rights than migrants with low levels of education.

Several studies indicate a gender gap in language skills and education among migrants in Europe, though the direction depends strongly on the country of origin. Generally, female migrants are found to be lower educated and less proficient in the receiving country's language than their male peers (Haug 2008). However, these findings are usually based on migrant groups who origin from the guest worker generation which is characterized by high levels of traditional gender roles where human capital investments are skewed towards men (Van Tubergen 2008). However, in our sample we include migrants mainly from EU, OECD and eastern-European countries among which women have been found to possess stronger language skills and to be better educated than their male peers (Eurostat 2016). I therefore formulate the following hypothesis:

H2: Female migrants know more about their healthcare eligibility than male migrants because of their better education and stronger language skills.

Social Capital

Migrants' knowledge about the host country institutions and their social rights might also depend on their embeddedness within specific networks. Social networks create social capital in form of trusted information (Coleman 1990), which can be used for the advantage of its network members. Therefore, in order to understand why certain migrants know more about their healthcare rights than others, one has to consider their networks and the embedded social capital. Studies indeed show that informal networks are important transmitters of information with regards to welfare services. Dahl, Loken, and Mogstad (2014), for example, find that relevant information about paternity leave policies in Norway is acquired through peer networks, mainly because peers transmit information about the costs and benefits of the program. Also, Filgio, Hamersma, and Roth (2015) emphasize the importance of dense

networks in information provision with regards to welfare services among Hispanic migrant women in the USA.

The nature of information and knowledge transmission is likely to vary depending on the network characteristics. The most prominent conceptual distinction in the migrant literature is thereby made between bonding and bridging ties: Bonding ties exist between members of the same ethnic group and are expected to enhance solidarity and trust (Portes and Sensebrenner 1993) and provide access to trusted information (Flap and Völker 2004). Bridging ties, on the other hand, refer in the migrant context to contacts with natives. Similar to weak ties, bridging ties are assumed to be advantageous because they link migrants to information novel to them and otherwise not accessible (Burt, 2004).). Since being socialized within host-country institutions, natives are assumed to have better access to information, contacts, and knowledge about the society and its institutions and services (Duvander 2001; Aguilera 2005). Hence, migrants who cultivate relations with natives might have better access to information and knowledge about the public healthcare system and the eligibility to make use of it.

However, one can also argue that whereas natives are likely to be familiar with general healthcare-related issues such as where to find a good doctor or which treatments are covered by the insurance, they are less acquainted with migrant-specific issues such the conditions under which migrants are eligible to make use of public healthcare. Hence, rather social ties to the co-ethnic community might be important for migrants' access to knowledge about their social rights within the receiving country. Co-ethnic migrants are likely to be more familiar with migrant-specific issues and rules concerning migrants' access to welfare. Filgio et al. (2015) emphasize that particularly ties to co-ethnics facilitate the acquisition of welfare information among Hispanic migrant women, finding that Hispanic women who live in dense co-ethnic neighbourhoods have in increased likelihood to participate in specific welfare programs.

The question therefore is whether bonding or bridging ties (or both) contribute to migrants' knowledge about their access to public healthcare and whether we can expect migrant men and women to differ in their social relations. Women have been found to prefer small and interconnected networks (Moore 1990; Burt 1998; Inglehardt and Norris 2003) which are characterized by high levels of trust and similarity (Lowendes). Moore (1990) studies men and women's personal networks and finding that women are more focused on family whereas men's focus lies on non-kin, especially co-workers. Among Turkish migrants in Germany, Seibel (yet to be published) finds women are bound to the family, having significantly less contact to natives than men due to limited opportunities and family influence. Migrant men have stronger incentives to establish inter-ethnic relations to natives since these ties are most useful for finding adequate employment (Seibel and Van Tubergen 2013).

Since health issues are often of sensible nature, they are likely to be discussed within closed and trusted networks (Hinze and Samland 2004). Female migrants' strong embeddedness within co-ethnic and kin-based networks might therefore be an advantage in this regard as they have better access to information about healthcare rights than male migrants. It is therefore likely that gender differences in network composition explain differences between migrant men and women in their knowledge about their healthcare rights.

H3: Female migrants know more about their healthcare eligibility than male migrants because they possess more bonding ties.

Socialization

Lastly, I want to look at whether gender differences in knowledge about healthcare eligibility differs between migrant groups. Healthcare can be a rather intimate issue and information is probably received through channels people feel most comfortable with. It is therefore quite

likely that men and women tap different forms of sources to acquire information about healthcare as the individual perception as well as the societal acceptance of healthcare is quite different for men than for women. Both, feminist studies as well as theories on masculinity suggest that men and women are socialized into different healthcare behaviour which affects among others their self-interest in the topic (Igel, Braehler, and Grande 2010). Particularly strong perceptions of masculinity lead to men being hesitant in engaging in health-seeking behaviour and lower the chance that men acquire information about medical prevention or healthcare (Courtenay 2000). Strong gender role stereotypes within societies not only supress women in their healthcare rights but also work as obstacles for men to get familiar with healthcare as Stanistreet, Bambra, and Scott-Samuel (2005) show.

In addition, micro-level studies suggest that traditional gender roles are associated with job choices into gender-segregated labour market segments (Fortin 2005). Adapting this finding to the macro-level, one can assume that that in societies with traditional gender roles men and women do not interact as frequently , both in inter-personal networks as well as in institutional settings, as in more liberal societies and are therefore more likely to tap different sources of information. In more egalitarian countries, however, men and women are likely to converge their knowledge acquisition as their circles of networks and institutions overlap. Hence, traditional gender roles not only affect gendered healthcare behaviour on the individual level, it also leads to gender segregation throughout the social spectrum, be it on the labour market (Fortin 2005) or within personal networks (Seibel, yet to be published). This paper looks at migrants from 9 different origin countries which differ quite extensively in the degree of gender segregation and gender role stereotypes (Fortin 2005; Röder and Mühlau 2014). Studies suggest that migrants import their attitudes and social behaviour to the receiving countries (Röder and Mühlau 2014; Lancee and Seibel 2014). In line with Bourdieu's idea of habitus, the mechanism at work may be 'social practice' (Bourdieau 1988, Lancee and Seibel 2015). Migrants may

'transport' their ways of knowledge acquisition and information seeking to the receiving country. It is therefore very likely that migrants who have been socialized in more traditional countries are likely to continue their gender-specific ways of knowledge acquisition within the receiving country as well.

H4: *The gender gap in knowledge about healthcare eligibility is stronger among migrant groups from traditional countries.*

Data, Methods, and Measurements

Data

The data used in this article is from the survey "Migrants' Welfare State Attitudes" (MIFARE), which was conducted by the author as well as other members of the MIFARE research team (Bekhuis, Fage Hedegaard, Seibel, Degen, and Renema 2018; Lubbers, Diehl, Kuhn, and Larsen, 2018). We sampled among migrants from ten origin countries: Spain, Poland, Great Britain, United States, Turkey, Russia, Romania, Japan, China, and the Philippines. In addition, a sample of the native population was drawn in each receiving country. Romania had to be excluded since this country is missing in the International Social Survey Programme (ISSP) data which is needed to measure gender role attitudes in the countries of origin.

The sampling was done by national statistics agencies using the Civil Registration System in the Netherlands and Denmark and by contacting sampled municipalities in Germany. Sampling was limited to migrants from the nine countries who were 18 years or older when the survey was conducted in 2015 and who have been living in their country of origin up till at least the age of 16 years (Author, 2017). In order to overcome high drop-out rates and validity problems caused by potential misunderstanding of the survey items, the survey was fielded both in the main language of the receiving country and in the main language of the origin country.

Furthermore, respondents had the opportunity to fill-out the questionnaire off- or online. Further, a relatively generous incentive in the form of a gift card of 10 euros was used in order to boost response rates. For each migrant group in each receiving country, around 1000 people were sampled, resulting in a gross sample of 35,195 of which 10,162 responded (response rate of 29%). In general, the response rates were the lowest in Germany, due to the sampling not being register based. In all three countries, the response rates among Turkish migrants were the lowest. After list-wise deletion I end up with 6924 cases.

Measurements

The dependent variable captures the extent to which migrants know about their rights regarding their access to public healthcare in the receiving country. This factor is measured by the question "*At which point after arrival do migrants from* [country of origin] *have the same rights as natives in* [receiving country] *to use the public healthcare system*?" The answer categories include 'after registering as resident in [receiving country]' (1), 'after residing in [receiving country] for an extended period of time, whether or not they have worked' (2), 'only after they have worked and paid taxes and insurances for an extended period of time' (3), 'once they have become a [receiving country] citizen (obtained nationality)' (4), 'they will never get the same rights' (5). For all three receiving countries the correct answer is 'after registering as resident' (1). The variable was therefore recoded into a dummy variable with 'not provided correct answer' (0) and 'correct answer' (1).

For human capital I look at migrants' education and their language skills. Education was measured by the question after the highest educational level achieved (either in the country of origin or receiving country). The answer categories vary between origin groups as educational systems differ between countries. Following standardized and experienced international surveys as the ISSP, responses where therefore recoded according to the ISCED-97 scale

(OECD, European Union, UNESCO Institute for Statistics, 2015) and vary from ‘no formal education [’ISCED 0]’ (0) to ‘upper tertiary education [ISCED 6] ’ (6). I regrouped the variable into three categories: ‘Low level education - ISCED 0-2’ (1), ‘medium level education - ISCED 3-4’ (2), and ‘high level education - ISCED 5-6’ (3).

Respondents also had to report their ability in both, writing and speaking, the receiving country’s language from ‘very well’ (1) to ‘not at all’ (5). I reversed the scale and took the mean of both measures, hence the higher the value the better the subjective language skills of the respondent.

Social capital was measured by two questions which ask about the ethnic composition of people’s friendship networks. Respondents hat to indicate how many of their friends living in the receiving country are originally from a) their origin country and b) from the receiving country, with answer categories ranging from ‘all’ (1) to ‘none’ (5). I reversed the scale and labeled the first measurement ‘share of co-ethnic friends’ and the second measurement ‘share of native friends’.

Necessity and self-interest are captured by migrants’ personal health status, the frequency of visits to a doctor or hospital, and whether respondents receive disability benefits from the government. Personal health was measured with the question “*How is your health in general*” with answer categories ranging from very bad (1) to very good (5). After list-wise deletion, only 31 people were left in the ‘very bad’ category; I therefore regrouped the variable to four categories: very bad/bad (1) to very good (4). Experiences with healthcare is captured by the following question: “*During the past 12 months, how many times have you visited a doctor, a therapist or a hospital for a personal or a relative’s medical issue*?”. This question has six answer categories ‘never‘ (1), ‘once‘ (2), ‘2-3 times‘ (3), ‘4-5 times‘ (4), ‘6-10 times‘ (5), and ‘more than 10 times‘ (6).

For the socialization effect, I rely on the survey “Family and changing gender roles” from the International Social Survey Programme (ISSP, fourth round, from 2012). Based on the ISSP

survey, I calculated the average support for the statement "A man's job is to earn money; a woman's job is to look after the home and family" with answer categories ranging from 'strongly agree' (1) to 'strongly disagree' (5). For each origin country I took the mean value with low scores indicating traditional gender roles and higher scores liberal gender roles. This measurement captures on the one hand the conception of masculinity versus feminity, but functions also as a proxy for gender segregation as it also asks about gendered life domains.

Lastly, I control for the following: household income (scale between 1 and 11, resembling the wave 2008 of the ISSP's family income variable), number of household members, the receiving country 'Netherlands' (1), 'Denmark' (2), and 'Germany' (3), whether migrants use media sources from the receiving country with answer categories ranging from 'never' (1) to 'daily' (6) and employment status, regrouped into the following categories: Employed (1), in education (2), unemployed (3), sick or disabled (4), retired (5), looking after the home (6), and something else (7).

Method

Although I deal with a binary variable, the models are based on linear probability estimations since in logistic regressions, one cannot compare coefficients across models with different independent variables (Mood 2010). The models were also estimated with logistic regressions, however, the results do not differ (*available on request*).

Results

Table 1 presents the descriptives of the independent variable as well as all dependent variables by gender. We see that the majority of migrants provided the correct answer to the question when their migrant group has the same rights to access healthcare as natives and that this the case particularly among the female populations. With regards to migrants origin countries we

see that migrant men origin from slightly more liberal countries than migrant women. I also find gender differences in human capital with migrant women being slightly better educated than their male peers and also score higher on language skills. Moreover, as assumed do migrant women have a larger share of co-ethnic friends whereas migrant men score higher with regards to friendship with natives. We also find gender differences in healthcare behaviour with migrant women visiting the doctor more often than migrant men. Lastly, we find large gender differences in the employment status and length of stay

Table 2 presents the estimates of linear estimation models explaining knowledge about healthcare eligibility. We see that migrant women know significantly more about their healthcare rights than migrant men (Model A). I first hypothesized, that migrant women might know more about their healthcare eligibility because they possess a stronger self-interest in the healthcare topic. In model B I therefore added migrants' health status as well as their frequency of visiting a doctor or another medical institution within the last year. Adding these self-interest variables lead the gender coefficient to decrease significantly (t-test, p =.000). The Sobel mediation test shows that this decrease is mainly due to women paying more visits to the doctor than men as this variable explains about 28% of the total effect mediated (p=.000). The mediating effect of subjective health status, however, is not significant (p=.084). Also, contrary to my assumption, a better health status is associated with a higher likelihood to possess accurate knowledge about healthcare rights. One explanation could be that healthy people are healthy just because they are interested in their health and therefore undertake measures to keep healthy. This would go in line with the following finding, namely that the more visits to a doctor or medical institution migrants report, the higher the chance that they know when to be eligible for receiving healthcare in the receiving country. I continue with explaining this gender gap in knowledge about access to healthcare by looking at human capital, and social capital.

Table 1: Descriptives by gender

	Migrant Women				Migrant Men			
Variable	mean	sd	min	max	mean	sd	min	max
Knowledge Healthcare Eligibility	0.80		0	1	0.75		0	1
Self-Interest								
Subjective health status	4.11	0.79	2	5	4.14	0.81	2	5
Visits to the doctor within last year								
Never	0.11		0	1	0.18		0	1
Once	0.16		0	1	0.20		0	1
2-3 times	0.28		0	1	0.28		0	1
3-4 times	0.18		0	1	0.14		0	1
6-10 times	0.15		0	1	0.10		0	1
> than 10 times	0.13		0	1	0.10		0	1
Human Capital								
Education								
ISCED 0-2	0.09		0	1	0.11		0	1
ISCED 3-4	0.25		0	1	0.28		0	1
ISCED 5-6	0.67		0	1	0.61		0	1
Language Skills	3.39	1.16	1	5	3.15	1.23	1	5
Social Capital								
Share of native friends	2.78	0.98	1	5	2.97	1.01	1	5
Share of co-ethnic friends	2.77	1.04	1	5	2.62	1.09	1	5
Socialization								
Gender Role Attitudes CO	2.93	0.57	1.85	3.66	3.15	0.45	1.85	3.66
Control Variables								
Employment Status								
Employed	0.59		0	1	0.77		0	1
In Education	0.10		0	1	0.08		0	1
Unemployed	0.07		0	1	0.05		0	1
Looking after home	0.14		0	1	0.01		0	1
Retired/sick/other	0.10		0	1	0.09		0	1
Age in years	40.25	12.26	18	90	42.01	12.89	18	90
RC Media consumption	4.79	1.55	1	6	4.67	1.59	1	6
Receiving country								
The Netherlands	0.39		0	1	0.31		0	1
Denmark	0.37		0	1	0.36		0	1
Germany	0.24		0	1	0.33		0	1
Length of stay in years	12.05	10.89	0	62	13.54	12.63	0	85
N	*4290*				*2634*			

In model C I added education and language skills; the higher the education and the better the language skills, the more likely migrants are possess accurate knowledge about their rights with regards to accessing public healthcare.

Table 2: Linear regression estimations: Gender Differences in Knowledge about Healthcare Eligibility

	Model A	Model B	Model C	Model D	Model E	Model F
Gender: Female	0.036***	0.026*	0.021+	0.038***	0.014	0.141*
	(3.45)	(2.48)	(1.95)	(3.63)	(1.28)	(2.13)
Subj. Health Status		0.028***			0.018*	0.017*
		(4.15)			(2.52)	(2.48)
# visits to doctor		0.026***			0.024***	0.024***
		(7.61)			(6.92)	(6.94)
Education (ISCED)			0.018***		0.017***	0.017***
			(4.69)		(4.44)	(4.41)
Language			0.038***		0.036***	0.036***
			(6.91)		(6.27)	(6.10)
Share of co-ethnic friends				-0.012*	-0.007	-0.006
				(-2.42)	(-1.27)	(-1.08)
Share of native friends				0.003	-0.008	-0.008
				(0.60)	(-1.36)	(-1.45)
Gender roles CO					0.011	0.041*
					(1.13)	(2.16)
Female # Gender roles CO						-0.041*
						(-1.97)
Employment status (ref: Employed)	*Ref.*	*Ref.*	*Ref.*	*Ref.*	*Ref.*	*Ref.*
in Education	-0.025	-0.016	-0.018	-0.026	-0.011	-0.012
	(-1.37)	(-0.85)	(-1.00)	(-1.44)	(-0.62)	(-0.64)
Unemployed	0.001	0.004	0.019	0.004	0.017	0.017
	(0.05)	(0.20)	(0.96)	(0.19)	(0.86)	(0.83)
Looking after home	0.011	0.005	0.029+	0.014	0.020	0.019
	(0.64)	(0.27)	(1.65)	(0.80)	(1.15)	(1.09)
Retired/sick/other	-0.052**	-0.053**	-0.030	-0.051**	-0.035+	-0.035+
	(-2.86)	(-2.85)	(-1.61)	(-2.79)	(-1.88)	(-1.90)
age	-0.001	-0.000	0.000	-0.001	0.000	0.000
	(-1.06)	(-0.75)	(0.69)	(-1.15)	(0.53)	(0.35)
RC Media consumption	0.015***	0.014***	0.004	0.014***	0.005	0.006
	(4.26)	(4.05)	(1.06)	(3.96)	(1.34)	(1.40)
Netherlands	*Ref.*	*Ref.*	*Ref.*	*Ref.*	*Ref.*	*Ref.*
Denmark	0.106***	0.099***	0.096***	0.104***	0.089***	0.089***
	(9.49)	(8.86)	(8.61)	(9.27)	(7.92)	(7.94)
Germany	-	-	-	-	-	-
	0.114***	0.128***	0.132***	0.114***	0.145***	0.144***
	(-7.93)	(-8.88)	(-9.13)	(-7.89)	(-9.92)	(-9.81)

Length of stay in years	0.001	0.000	-0.001	0.000	-0.001	-0.001
	(0.92)	(0.60)	(-1.48)	(0.68)	(-1.49)	(-1.34)
N	6924	6924	6924	6924	6924	6924

t statistics in parentheses + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

More importantly, the gender coefficient decreases by half and losses in significance (p=.000). A Sobel mediation test reveals that about 10% of the decrease can be explained by migrant women's higher education (p=.004) and about 36% by women's better language skills (p=.000).

In Model D I added the social capital variables, share of native friends and share of co-ethnic friends; whereas it does not matter whether migrants have many or only few native friends, the share of co-ethnic friends has a negative effect on healthcare knowledge. Interestingly, the gender coefficient increases significantly (p=.015). Model E contains all explanatory variables; the gender effect decreases further and becomes insignificant which is mainly due to migrant women's better language skills and their higher frequency in visiting doctors and medical institutions. It is likely, of course, that the explanatory variables are not completely independent from each other. For example, migrant women might be more likely to visit the doctor because of their better language skills, as migrant men might not be as able to communicate with the medical staff. Language skills might also impact migrants' network composition. However, as we see in Model E, the estimations of doctors' visits hardly change compared to model B, although I control for migrants' human capital. The co-ethnic friendship coefficient decreases and becomes insignificant when comparing model D and E; further analyses show that this is indeed mainly due to the language variable, as migrants who speak the native language well report to have fewer co-ethnic friends (*not presented here*).

Lastly, I suggested that the gender gap in healthcare knowledge should be particularly large among migrant groups from countries which hold traditional gender role values as in these countries gender segregation leads to men and women tapping different sources of information when it comes to healthcare (H4). In Model F I therefore added gender roles from the origin country to the model and estimate an interaction effect with gender. We see that the gender gap

decreases among migrant groups which origin from more liberal countries with regards to gender roles. For a better understanding of the inter-play between gender and country of origin I display the average marginal effects of gender by country of origin in figure 1.

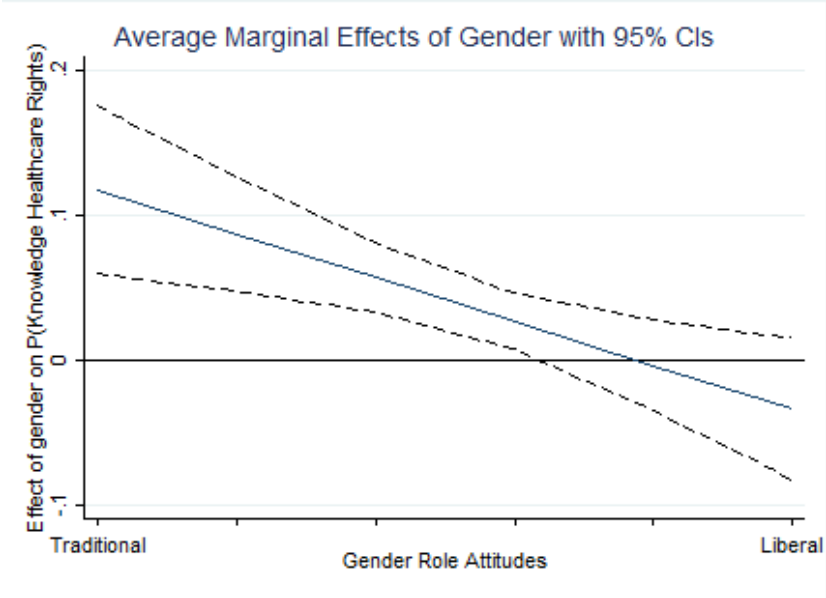

Figure 1: Average Marginal Effects of Gender on knowledge, by CO gender role attitudes

We see that the gender gap is indeed largest among migrant groups who origin from countries with traditional gender roles and decreases the more liberal the origin countries are.

Conclusion

This study investigates potential gender differences among migrants in their knowledge about access to healthcare. Its contribution to the literature is thereby twofold: First, it sheds light on migrants' actual knowledge about their healthcare rights. This is crucial as Europe has experienced a massive increase of migration into the member states' healthcare systems. A successful integration into the healthcare systems depends thereby among others on migrants' understanding and knowledge of the system. Second, I add a gender perspective to this topic, as healthcare in general is a gendered issue and migrant women and men are likely to differ in their knowledge about their access to healthcare.

I suggest three main factors which are likely to explain this gender gap: Gender differences in human capital, social capital, and self-interest. I find that one of the main reasons why migrant women know more about their healthcare eligibility is migrant women's stronger self-interest in the topic. Migrant women make use of healthcare services much more often than migrant men for their own health but also for the health of others; hence, they are genuinely interested in the issue of being eligible for receiving healthcare. Moreover, in this sample migrant women speak and write in the native language better than their male peers which additionally explains why migrant women possess more knowledge about their healthcare eligibility than migrant men. This seems first as surprising since migrant women are generally found to possess lower language skills than migrant men (for example, Haug 2008). However, most studies concerned with migrants' language skills study groups from the guest worker generation such as Turkish or Moroccan migrants (van Niejenhuis, van der Werf, and Otten 2015) among which women generally are disadvantaged in their structural and cultural integration into the host society. In this sample, migrants origin from all different places such as high-income countries such as the USA or Great Britain, where women are on average well educated and therefore also more likely to learn the receiving country language well. This finding underlines the importance of language for migrants' integration as many other studies have shown (for example, Kaida 2013). I also hypothesized that migrant men and women interact in different networks and therefore tap different forms of information which contributes to the knowledge gap. However, whereas migrant women do engage more in co-ethnic rather than native networks than migrant men, these network differences do not explain why migrant women know more about their access to healthcare than men.

I also argue that a potential gender gap in knowledge about access to healthcare should be most prominent among migrant groups who origin from countries which are characterized by traditional gender values and gender segregation. In these countries men and women are likely

to tap different sources of information than in liberal countries where the overlapping of gender and all forms of knowledge sources such as institutions and social networks is more prominent. Whereas women are found to know less about other welfare benefits such as pensions (Gutsman and Steinmeier 2015), migrant women actually know more about their access rights to healthcare than migrant men; moreover, this gender gap is most prominent among migrant groups who origin from countries where the majority of people holds rather traditional gender role attitudes. The direction of the gender gap might not be so surprising after all since healthcare was and is a female issue and it seems reasonable that migrant women deal more with healthcare related topics and therefore possess better knowledge about this issue.

What can we conclude from these findings? First of all, knowledge about access to social rights is fundamental for functioning welfare states. Only if migrants understand the welfare system they can fully benefit as well as contribute to the system. Moreover, knowledge about healthcare rights are associated to the concept of health literacy, "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Roundtable on health literacy 2012). If migrants do not know their rights with regards to access to healthcare, this might negatively impact their health literacy which in turn is crucial for general health.

Host countries should therefore invest in information programs educating migrants about their rights within the welfare system. Healthcare seems thereby to be a female domain, both on the institutional as well as on the individual level: the healthcare sector is dominated by female care workers who origin increasingly from foreign countries (Bettio, Simonazzi, and Villa 2006). Moreover, women govern not only their own but also their family's healthcare (Mustard et al. 1998; Case and Paxson 2001; Igel, Braehler, and Grande 2010; Read & Gorman 2010). This leaves the question whether marriage actually contributes to migrant men's healthcare knowledge and should be considered in future studies. Policy makers should recognize that

migrant men and women differ in their healthcare behaviour and knowledge and should therefore be specifically targeted. For example, migrant men should be encouraged to make use of medical institutions if needed. Studies have shown that already mild information interventions in form of brochures have significant effect in welfare behaviour (Liebman and Luttmer 2015).

Of course, this study also contains some limitations. Since the data is cross-sectional, room is left for questioning the causal inference of, for example, usage of healthcare services and knowledge about healthcare access within the receiving country. One could argue that migrants who know more about their healthcare rights also make use of the public healthcare more often. The causal relation of both variables is difficult to test and the truth lies probably in the middle. However, I argue that in case of sickness most people try to receive medical help as quickly as possible and only through the experience are able to categorize their rights. Nevertheless, this study should be complemented with panel data in order to adequately address the issue of causality. Finally, this paper is concerned with gender differences in knowledge about healthcare rights within the receiving country raising the question whether migrant men and women also differ in their knowledge with regards to other welfare benefits. Gutsman and Steinmeier (2015), for example, find among the native population that women know significantly less about their pension rights than men. Hence, whereas migrant women might possess a knowledge advantage in the healthcare domain, they might know less about other welfare rights.

Lastly, knowledge about healthcare is also likely to depend on peoples' stage in the life course: as discussed above, women remain responsible for their family's health which raises the question whether migrant women know particularly more about their healthcare rights once having children. It is also likely to assume that for migrant men marriage plays an important role as married men might benefit from their wives' knowledge about healthcare and healthcare

rights? I therefore suggest for future research to address the topic of migrants' knowledge about healthcare rights not only from a gender but also from a life course perspective.

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