



How do General Demographic and Socio-Economic, Migration-Related and Psychological Determinants influence Health Literacy among Migrants with Turkish or Ex-Yugoslavian Background in Austria?

Results from the Austrian „Health Literacy of Migrants Study”

Kristin Ganahl, Jürgen M. Pelikan, Sandra Peer
*Ludwig Boltzmann Institute Health Promotion Research
Vienna, Austria*

7th Annual Health Literacy Research Conference
November 2-3, 2015
Bethesda Maryland, Hyatt Regency Bethesda

LBIHPR: A-1020 Vienna, Untere Donaustraße 47, Austria | office@lbihpr.lbg.ac.at | www.lbihpr.lbg.ac.at | +43 1 2121493 -10 | FAX - 50

in cooperation with:



Co-funded by:





PROBLEM RESEARCH QUESTION



AVAILABLE RESEARCH DEMONSTRATES:

Migrant status is a risk factor for limited health literacy and it's negative consequences.

(Ng, et al., 2013 - Canada; Rudd, 2004 –U.S.; Australian Bureau of Statistics, 2008; Fransen et al., 2013 – the Netherlands, Wangdahl, 2014 – Sweden; Messer et al. 2015 –Germany)



DETERMINANTS OF HEALTH LITERACY (ESPECIALLY TO MIGRANTS)

Low health literacy follows a social gradient!

(Sørensen, et al. 2015; Bo, et al. 2014; Paasche-Orlow, M.K., et al. 2005)

- Higher poverty rates among migrants than among full-status residents

Socio-economic Determinants

Prolonged official language proficiency has a negative impact on health-literacy.

(Rudd, 2004 –U.S.; Kutner et al, 2006; - U.S.; Australian Bureau of Statistics, 2008; Bo, et al., 2015 – Denmark; ..etc.)

- Prolonged official language proficiency
- Less legal right in the country of immigration (residence permit status)
- Experienced discrimination
- Different health beliefs
- Unknown health care systems

Migration-related Determinants

Low self-esteem or low internal and high external locus of control might have a negative impact on health literacy.

(Hypotheses)

- Low self-esteem (i.e. as a cause of discrimination)
- Low internal Locus of Control, high external Locus of Control in populations with migration background

Psychological Determinants



RESEARCH QUESTION

In how far do three kinds of determinants

- **Demographic and Socio-Economic,**
- **Migration related** and
- **Psychological dispositions**

explain variation of and especially low Health Literacy among migrants with Turkish or Ex-Yugoslavian background in Austria?



METHODS



THE AUSTRIAN HEALTH LITERACY OF MIGRANTS STUDY – A MIXED METHODS APPROACH

QUALITATIVE STUDY

Expert interviews	Guideline interviews, face-to-face or via telephone (53 interviews in all 9 federal states)
Focus groups (FG)	8 FG in Turkish (TR), 5 FG in Bosnian/Croatian/Serbian, (B/C/S) 1 FG with adolescents with mixed migrant backgrounds
Analysis	Content analysis which was used as basis for adapting the existing HLS-EU survey and developing the an additional migrant specific HL measure (GKM-Q12)

QUANTITATIVE SURVEY

Sample/ Data collection	Random sampling/telephone survey in 5 languages (German, B/C/S,TR) by market research “GfK Austria”
Sample size	N=625 (Ex-Yugoslavia N=300, Turkey N=325)
HL self-assessment measures	HLS-Q16 (Short Scale of the HLS-EU-Q47) and development of a migration-related HL-index (GKM-Q12) Based on qualitative study, in the format of HLS-EU.
Questionnaire	Existing HLS-EU-Q86 questionnaire adapted according to results of qualitative study.
Analysis	Correlation analysis and regression analysis

HL-Item examples for the GKM-Q12:

On a scale from very easy to very difficult, how easy would you say it is to: ...

- ...to obtain information in an understandable language?
- ..find out which services are paid by the health insurance?
- ...to understand how the Austrian Health Care System is organised?



PLACEMENT OF THE GKM-Q12 ITEMS IN THE HLS-EU CONCEPTUAL MATRIX (SÖRENSEN ET AL. 2012)

Health literacy GKM-Q12	Access information relevant to health	Understand information relevant to health	Appraise information relevant to health	Apply information relevant to health
Health care	<p>...to find out which services are paid by the health insurance? (GKM-Q12-1)</p> <p>...to find a general practitioner that speaks your first language? (GKM-Q12-7)</p> <p>...to get psychological care in your first language or in a easy-to-understand language? (GKM-Q12-12)</p>	<p>...to understand how the Austrian health care system is organised? (GKM-Q12-5)</p>	<p>...to decide if you should go to general practitioner or to the ambulance? (GKM-Q12-6)</p>	<p>...to make oneself understood in a doctors office or in a hospital? (GKM-Q12-2)</p> <p>...to make an application for social benefits? (GKM-Q12-8)</p> <p>...to complete a form without external assistance? (GKM-Q12-9)</p>
Disease prevention		<p>...to understand why you keep a certain diet? (GKM-Q12-4)</p>		
Health promotion	<p>...to find related services nearby, that are available for you? (GKM-Q12-10)</p>	<p>...to obtain health-related information in a easy-to-understand language? (GKM-Q12-11)</p>		<p>...to put a health life-style into practice? (GKM-Q12-3)</p>

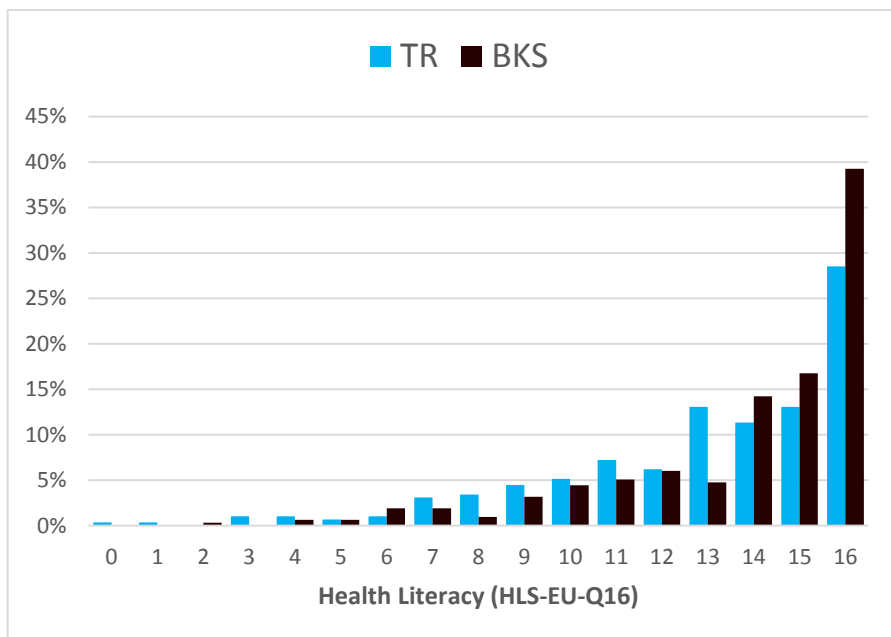
There is no official translation of the items into English!.



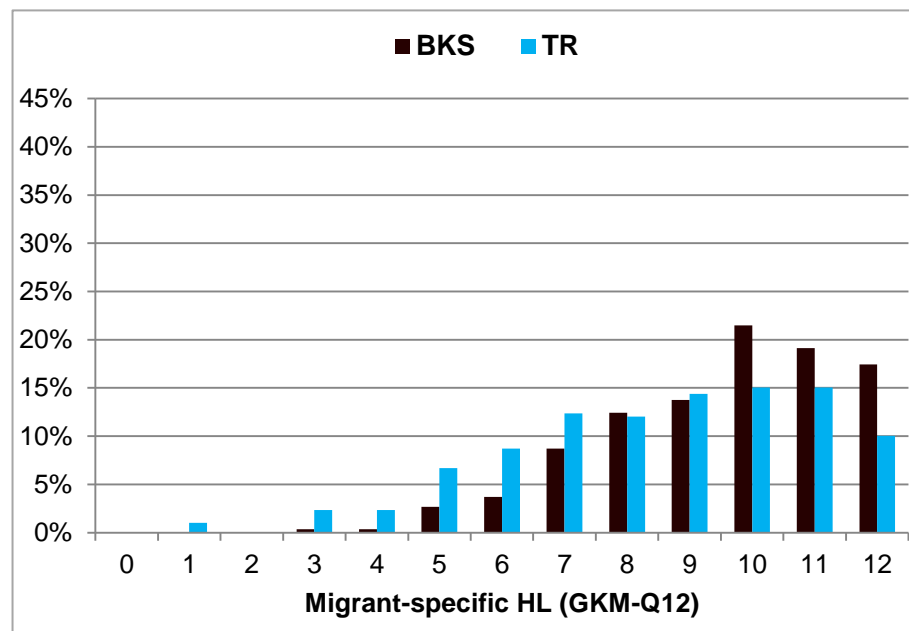
RESULTS

DISTRIBUTIONS & CORRELATIONS OF THE SCALE / INDEX VALUES OF THE TWO Health Literacy Measures

HLS-EU-Q16



GKM-Q12



Correlations between HLS-EU-Q16 and GKM-Q12

	TR	BKS
r	,686**	,539**



CHARACTERISTICS OF Demographic and Socio-Economic DETERMINANTS

		TR	BKS
Gender	Male	55,0%	49,2%
	Female	45,0%	50,8%
Age*	Mean	40,7	44,2
	SD	12,3	12,9
Age categories*	15-29	18,7%	12,9%
	30-44	41,7%	38,5%
	45-59	34,7%	34,8%
	60+	5,0%	13,8%
Education*	No compulsory schooling	17,3%	1,8%
	Compulsory schooling	26,0%	10,8%
	General secondary school	34,6%	48,9%
	Higher Education	12,4%	16,3%
	University	9,6%	22,2%
Social Status (Scale 1-10)	Mean	5,95	5,91
	SD	1,93	1,70
Financial Deprivations-Index* (Factor score)	Mean	0,1	-0,09
	SD	1,0	0,97

* Significant difference between the samples.



CHARACTERISTICS OF Migration Related DETERMINANTS

		TR	BKS
Generation*	1.Generation	75,3%	84,9%
	2. Generation	24,7%	15,1%
Resident Status	Austrian citizenship	70,9%	73,4%
	Unlimited/limited resident permit	29,1%	26,6%
Self-assessed Knowledge of German*	Very good	34,0%	56,0%
	good	29,3%	27,1%
	moderate	30,3%	16,0%
	Poor	5,3%	0,9%
	Very poor	1,0%	0,0%
Feeling of home*	Not at all/ rarely	18,1%	4,0%
	Totally/rather more	81,9%	96,0%
Feeling of discrimination*	Always/mostly/sometimes	60,3%	34,2%
	Seldom/never	39,7%	65,8%

* Significant difference between the samples.



CHARACTERISTICS OF Psychological DETERMINANTS

		TR	BKS
Self-esteem Index (Rosenberg)*	Mean	3,7	4,0
	SD	,6	,7
Locus of Control Index (intern)	Mean	3,43	3,48
	SD	0,67	0,58
Locus of Control Index (extern)	Mean	2,08	2,06
	SD	0,80	0,73

* Significant difference between the samples.

How do Demographic and Socio-Economic, Migration-Related and Psychological Determinants influence Health Literacy among Migrants with Turkish or Ex-Yugoslavian background in Austria? (Regression models)

HEALTH LITERACY (GKM-Q12)		TR	BKS	
		Beta	Beta	
SOCIO-DEMO. & ECO. DET.	Gender (0=male; 1=female)	-,038	,036	
	Age	-,095	,034	
	Education	University	,072	,141
		Higher Education	,053	,074
		General secondary school	,046	,104
		No compulsory / only compulsory schooling	Reference	Reference
Financial Deprivation (factor scores – low to high fin. deprivation)	-,257**	-,214**		
Social Status (low to high)	,091	,039		
MIGRATIONR. DET.	Generation (0=1.Generation; 1=2.Generation)	-,073	,056	
	Resident Status (0=Austrian citizenship; 1=limited or unlimited resident permit)	-,076	-,080	
	Self-assessed Knowledge of German (very good to very poor)	-,172*	-,156*	
	Feeling of Home (0= Not at all/ rarely; 1= Totally/rather more)	,107	-,025	
	Feeling of discrimination(0=Always/mostly/sometimes; 1=Seldom/never)	,115*	,183**	
PSYCHOL. DET.	Self-esteem (high to low)	,084	,092	
	Int. Locus of Control (low to high)	,138*	,069	
	Ext. Locus of Control (low to high)	,031	-,124	
	Korr. R ² overall model	,313	,276	
	Korr. R ² model only with soc.-demo. & eco. determinants	,241	,165	
	Korr. R ² model only with migration-related determinants	,194	,194	
	Korr. R ² model only with psychological determinants	,169	,164	
N (Overall Modell) =		274	225	



INFLUENCE OF DIFFERENT KINDS OF DETERMINANTS ON HL (GKM-Q12) IN TWO MIGRANT GROUPS IN AUSTRIA

- **All three kinds of determinants**, social, migration-related and psychological have a considerable influence on the HL of the two migrant groups in separated models.
- **Together**, in an integrated model, they explain somewhat more variance of HL for TR (31,3%) than for BKS (27,6%).
- But the **relative influence** of the three kinds of determinants differs for the two migrant groups:
 - **TR**: 1. social determinants 2. migration-related determinants 3. psychological determinants
 - **BKS**: 1. migration-related determinants 2. social determinants 3. psychological determinants
- **Strength of indicators within kinds of Determinants in the integrated model:**
 - **Social determinants**: Financial Deprivation has a significant and high negative impact on HL.
 - **Migration-related determinants**: Self-assessed knowledge of German and Feeling of Discrimination have a significant and strong effect on HL. A better the respondents assessed their knowledge of German and the less they felt discriminated the better their HL Score.
 - **Psychological determinants**: locus of control (internal) has a significant positive effect on HL for TR sample, and locus of control (external) a non-significant but nearly as high negative effect on HL for BKS sample.



DISCUSSION / CONCLUSIONS



DISCUSSION / CONCLUSIONS

- **All assumptions/ hypotheses hold true in separated and also in an integrated model :**
 - HL follows a social gradient,
 - Migration-related determinants (especially: knowledge of language of host county) have an impact on the HL of migrants.
 - Psychological determinants show an impact, but not as strong as the other kinds of determinants.
- **Diversity of migrants:**
 - Even for two relatively similar migrant groups in the same host country, effects on HL of determinants partly differ.
- **Conclusion for interventions:**
 - Since a considerable proportion of the **variation of HL can be explained by general socio-economic determinants** and not just by migration specific ones, migrants will also profit from more general interventions to improve HL in the population and not only from migrant specific ones.



References

- Boe, A.; Friis, K.; Osborne, R.H.; Terkildsen Maindal, H. (2014): National indicators of health literacy: ability to understand health information and to engage actively with healthcare providers – a population-based survey among Danish adults. In *BMC Public Health*, 14: 1095.
- FRA-European Union Agency for Fundamental Rights (2013): Inequalities and multiple discrimination in access to and quality of healthcare. Luxembourg: Publications Office of the European Union.
- Kutner, M., Greenberg, E., Jin, Y., Paulsen, C. (2006): *The Health Literacy of America's Adults. Results From the 2003 National Assessment of Adult Literacy*. National Center for Education Statistics.
- Messer, M.; Vogt, D., Quenzel, G.; Schaeffer, D. (2015): Health Literacy bei Menschen mit Migrationshintergrund. *Health Literacy among immigrants*. *Public Health Forum*; 23(2): 121-123.
- Ng, E.; Omariba, D. (2010): Health Literacy and immigrants in Canada: Determinants and effects on health outcomes. Health Analysis Division, Statistics Canada.
- Ng, E.; Omariba, D. (2014): Immigration, generational status and health literacy in Canada. *Health Education Journal*. 73: 668-682.
- Paasche-Orlow, M.K., Parker, R.M.; Garmararian, J.A.; Nielsen-Bohlman, L.T.; Rudd, R.R. (2005): The prevalence of Limited Health Literacy. *J Gen Intern Med*, 20(2): 175-184.
- Priebe, S., Sandhu, S., Dias, S., Gaddini, A., Greacen, T., Ioannidis, E., Kluge, U., Krasnik, A., Lamkaddem, M., Lorant, V., Puigpinós Riera, R., Sarvary, A., Soares, J.J.F., Stankunas, M., Straßmayr, C., Wahlbeck, K., Welbel, M., Bogic, M. (2011). Good practice in health care for migrants: views and experiences of care professionals in 16 European countries. *BMC Public Health*, 11: 187. doi: 10.1186/1471-2458-11-187.
- Razum, O., Geiger, I., Zeeb, H. & Ronellenfitsch, U. (2004): Gesundheitsversorgung von MigrantInnen. *Deutsches ÄrztInnenblatt* 101 (43): A2882-A2887.
- Rootman, I., Grodon-El-Bihbety, D. (2008): *A Vision for a Health Literate Canada*. Ontario: Canadian Public Health Association
- Rudd, R.E., Kirsch, I., and Yamamoto, K. (2004): *Literacy and health in America*. Princeton, N.J: Policy Information Center, Education Testing Service.



References

- Sorensen, K., Pelikan, J.M., Roethlin, F.; Ganahl, K., Slonska, Z., Doyle, G., et al. (2015): Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU), *European Journal of Public Health*, 1-6.
- Sorensen, K., Van den Broucke, St., Fullam, J., Doyle, G., Pelikan, JM., Slonska,Z. and Brand, H. for (HLS-EU) Consortium Health Literacy Project Europe, (2012): Health literacy and public health: A systematic review and integration of definitions and models, *BMC Public Health*, 12(80).
- Spallek, J., Zeeb, H., Razu, O. (2010): Prevention among immigrants: The example of Germany. *BMC Public Health* 10:92.
- Tarraf, W.; Vega, W.; González, H.M. (2014): Emergency Department Services Use Among Immigrant and Non-immigrant Groups in the United States. *J Minority Health* 16: 595-606.
- Tiong, A.C.D, Patel, M.S., Gardiner, J.; Ryan R. et al. (2006): Health issues in newly arrived African refugees attending general practice clinics in Melbourne. *Medical Journal of Australia*. 185 (11/12):602-6
- Razum, O., Spallek, Razum, J. (2009): Wie gesund sind Migranten? Erkenntnisse und Zusammenhänge am Beispiel der Zuwanderer in Deutschland. Bundeszentrale für politische Bildung. Kurzdossier Nr. 12, April 2009.
- Wangdahl, J., Lytsy, P., Martensson, L., Westerling, R. (2014): Health literacy among refugees in Sweden – A cross-sectional study. *BMC Public Health* 14:1030.
- Weber, M.F., Chiew, M.; Feletto, E.; Kahn, C. Sitas, F.; Webster, L. (2014): Cancer Screening among Immigrants Living in Urban and Regional Australia: Results from the 45 and Up Study. *International Journal of Environmental Research and Public Health*, 11(8): 8251-66.

Acknowledgements

Co-Investigators:

- Julia, Dahlvik
- Sandra, Peer
- Florian, Röthlin
- Faime, Alpagu
- Ankica, Sikic-Fleischhacker

Special Thanks to all the participants in the study!

Funded by the Main Association of Austrian Social Security; Fund for a Healthy Austria (Fond Gesundes Österreich) and A Scientific Grant of Merck Sharp & Dohme GesmbH Austria



Thank you for your attention!

Contact:

kristin.ganahl@lbihpr.lbg.ac.at

<http://www.lbihpr.lbg.ac.at>

LBIHPR: A-1020 Vienna, Untere Donaustraße 47, Austria | office@lbihpr.lbg.ac.at | www.lbihpr.lbg.ac.at | +43 1 2121493 -10 | FAX - 50

in cooperation with:



Co-funded by:

